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INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

Mid Valley Water Facility Project

Los Angeles Department of Water and Power
Environmental Affairs
111 North Hope Street, Room 1044
Los Angeles, California 90012

August 2019

CEQA Initial Study and Mitigated Negative Declaration

Mid Valley Water Facility Project

August 2019

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
µg/L	micrograms per liter
AB	Assembly Bill
AFY	acre-feet per year
AQMP	Air Quality Management Plan
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model
CALINE4	California LINE Source Dispersion Model
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CHHSL	California Human Health Screening Levels
City	City of Los Angeles
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNG	compressed natural gas
CNRA	California Natural Resource Agency
CO	carbon monoxide
CO_2	carbon dioxide
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter
EIR	Environmental Impact Report
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
g/BHP-hr	grams per brake horsepower-hour
g/l	grams per liter
GHG	greenhouse gas
GWP	global warming potential
HARP2	Hotspots Analysis and Reporting Program Version 2
HCP	Habitat Conservation Plan
HIC	Chronic Hazard Index
HRA	Health Risk Assessment
I	Interstate
ITE	Institute of Transportation Engineers

Acronym/Abbreviation	Definition
kWh	kilowatt-hours
LADOT	Los Angeles Department of Transportation
LADWP	Los Angeles Department of Water and Power
LAFD	Los Angeles Fire Department
LAMC	Los Angeles Municipal Code
LAPD	Los Angeles Police Department
LARWQCB	Los Angeles Regional Water Quality Control Board
LASAN	Los Angeles Department of Public Works Bureau of Sanitation
L_{eq}	equivalent continuous sound level
LID	Low Impact Development
LOS	Level of Service
LST	Localized Significance Threshold
mg/kg	milligrams per kilogram
MGD	million gallons per day
MICR	Maximum Individual Cancer Risk
MM	Mitigation Measure
MND	Mitigated Negative Declaration
MT CO_2E	metric tons carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Plan
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
PCE	Passenger Car Equivalent
PM_{10}	particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter)
$PM_{2.5}$	particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter)
ppm	parts per million
RCNM	Roadway Construction Noise Model
RMP	Risk Management Policy
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SEA	Significant Ecological Area
SFB	San Fernando Basin
SMP	Site Mitigation Plan
SO_2	sulfur dioxide
SoCalGas	Southern California Gas Company
SO_x	oxides of sulfur
SR	State Route

Acronym/Abbreviation	Definition
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TPH	Total Petroleum Hydrocarbons
UWMP	Urban Water Management Plan
V/C	volume-to-capacity
VMT	vehicle miles traveled
VOC	volatile organic compound

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1 INTRODUCTION

1.1 Overview of the Project

The Los Angeles Department of Water and Power (LADWP) proposes to construct a consolidated campus with modern facilities and consolidated operations for the Mid Valley Water Facility (proposed Project). The proposed Project for the new Mid Valley Water Facility Project would be comprised of approximately 235,967 square feet of buildings, 216,000 square feet of aboveground parking, and 180,168 square feet of additional yard/expansion space on an approximately 17.3-acre parcel located at 7600 North Tyrone Avenue in the Van Nuys area of the City of Los Angeles (City). The proposed Project would also involve improvements to Hazeltine Avenue along approximately 323 linear feet of roadway.

1.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to proposed projects initiated by, funded by, or requiring discretionary approvals from state or local government agencies. The proposed Project constitutes a project as defined by CEQA (California Public Resources Code Section 21000 et seq.). CEQA Guidelines Section 15367 states that a "Lead Agency" is "the public agency which has the principal responsibility for carrying out or approving a project." Therefore, LADWP is the lead agency responsible for compliance with CEQA for the proposed Project.

As lead agency for the proposed Project, LADWP must complete an environmental review to determine if implementation of the proposed Project would result in significant adverse environmental impacts. To fulfill the purpose of CEQA, an Initial Study has been prepared to assist in making that determination. Based on the nature and scope of the proposed Project and the evaluation contained in the Initial Study environmental checklist (contained herein), LADWP, as the lead agency, concluded that a Mitigated Negative Declaration (MND) is the proper level of environmental documentation for this proposed Project. The Initial Study shows that impacts caused by the proposed Project would be less than significant or significant but mitigable with incorporation of appropriate mitigation measures as defined herein. This conclusion is supported by CEQA Guidelines Section 15070, which states that an MND can be prepared when "(a) the initial study shows that there is not substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or (b) the initial study identifies potentially significant effects, but (1) revisions in the project plans or proposals made by, or agreed to by the applicant, before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment."

1.3 Project Need and Objectives

The existing LADWP water facilities are located throughout the San Fernando Valley. The consolidation of these facilities is proposed to provide a centralized location for all LADWP Water System divisions. Additionally, the existing water facilities are out of date and need to be modernized to respond to a significant natural disaster and to manufacture and deploy large-scale components and equipment while maintaining a detailed overview of the Water System and its operation.

Objectives for the proposed Project are described below:

- Provide mission-critical facilities in a centralized location within the San Fernando Valley so that LADWP can respond to a significant natural disaster by restoring water systems immediately.
- Accommodate for the growth that has occurred within the San Fernando Valley by providing facilities and services in order to expedite response times.
- Consolidate and centralize Valley Water System divisions and operations in order to deploy large-scale components and equipment efficiently.
- Provide modernized, resilient facilities and ample space for groups from areas throughout the San Fernando Valley.
- Design state-of-the-art buildings and a new campus with a functional and efficient workflow.
- Incorporate water and energy conservation and renewable energy components into Project design.
- Provide permanent homes for department groups located throughout the San Fernando Valley within compromised locations.

2 PROJECT DESCRIPTION

2.1 Environmental Setting

Project Site

The proposed Mid Valley Water Facility site is located at 7600 North Tyrone Avenue in the Van Nuys area of the City of Los Angeles, adjacent to the existing LADWP Valley Center site occupied by the Power System. The parcel on which the Project site is primarily located is Assessor's Parcel Number 2215001913 (City of Los Angeles 2016). Figure 2-1, Regional Map, shows the regional location of the Project site. The Project site is approximately 17.3 acres of empty property already owned by LADWP. Access to the site is available from both Tyrone Avenue on the southwest and Hazeltine Avenue on the southeast, as shown in Figure 2-2, Vicinity Map. The closest major roadway to the Project site is Van Nuys Boulevard, located approximately two blocks to the west. The Project site itself, and specific surrounding land uses, are shown in Figure 2-3, Project Site. The proposed Project would also include improvements along approximately 323 linear feet of Hazeltine Avenue, which is a north-south City of Los Angeles roadway to the east of the Project site.

Van Nuys–North Sherman Oaks Community Plan Area

The Project site is located within the greater San Fernando Valley area and more specifically within City of Los Angeles General Plan's Van Nuys–North Sherman Oaks Community Plan area, as shown in Figure 2-4, Van Nuys–North Sherman Oaks Community Plan Area. The Van Nuys–North Sherman Oaks Community Plan Area is located approximately 16 miles northwest of downtown Los Angeles in the southeast quadrant of the San Fernando Valley comprising approximately 3% or 8,221 acres of the land in the City of Los Angeles. The Van Nuys–North Sherman Oaks Plan Area is generally bounded by the Southern Pacific Railroad on the north; the Tujunga Wash Channel on the east; the Ventura Freeway on the south; and Gloria Avenue, Valjean Avenue, and the San Diego Freeway on the west. As such, the Project site is located in the northern-most portion of the Community Plan area.

Surrounding Land Uses

Land uses in the immediate vicinity of the Project site are predominantly light industrial. Located immediately north of the Project Site are railroad tracks utilized by Amtrak, Metrolink, and others. North of the railroad tracks are additional light industrial uses as well as big box retail. West of the Project site is the LADWP Power System Yard, which is accessed via Van Nuys Boulevard to the west. Fronting Van Nuys Boulevard are predominantly retail uses. South of the Project site is a light industrial complex occupied by Time Warner Cable, and further to the south are Covello Street and a residential neighborhood of single-family homes. East of the Project site is a used car sales lot that processes donated vehicles.

Two airports are located within relative close proximity of the Project site. The Bob Hope Burbank Airport is located approximately 4 miles to the east and the Van Nuys Regional Airport is located approximately 2.5 miles to the west. Additionally, at the intersection of Van Nuys Boulevard with the railroad tracks, a new Metrolink station is currently under construction.

General Plan and Zoning Designations

The Project site is located within the M2-1 zone, with a General Plan land use designation of Light Manufacturing. The site is also located within a Los Angeles State Enterprise Zone as well as within Metropolitan Transportation Authority Project and Transit Priority Areas given the site's proximity to the Van Nuys Metrolink station. Due to the Project site's proximity to the Bob Hope and Van Nuys Airports, height restrictions are in place for the site. Depending on the specific location within the site, the height limit is 150, 200, or 500 feet above elevation of 790 feet. The average elevation of the site is 770 feet, thereby providing a maximum allowable height of between 170 and 270 feet. However, none of the proposed buildings would exceed 75 feet in height.

2.2 Project Facilities and Operations

The Project site was historically used for agricultural production and in 1965 was developed with a bioscience laboratory facility. The facility consisted of nine buildings, parking areas, facility equipment, and chemical and hazardous materials storage areas on the western and central portions of the Project site. A vacant field containing an abandoned residential dwelling, bunny house, construction equipment, and construction material storage areas were located on the eastern portion of the site. These facilities were all located on the Project site until 2013, when asbestos abatement, lead based paint removal, and building demolition occurred. LADWP purchased the Project site in 2013 with the intent to build a new district yard in order to allow consolidation of various divisions and expansion.

Given that LADWP owns this approximately 17-acre site, and given that a number of the water divisions are dispersed at out-of-date facilities throughout the entire San Fernando Valley, LADWP desires to consolidate all divisions onto one site. The proposed Project would house the following components, as outlined in Table 2-1, Project Components, and shown in Figure 2-5, Project Site Plan. Details for each proposed Project component are provided in the following section.

Table 2-1. Project Components

Building/Area	Square Footage	Component/ Group/Function
Trunk Line	68,280	Water distribution and trunk line construction and maintenance
Meter Shop	29,068	Meter and Services
Main Line	18,819	Water main line maintenance
Emergency Operations Center/Trouble Board	10,819	Emergency Operation Center
Security	826	On-site security
Supply Chain Services	71,363	Warehouse storage
Fleet Services	8,907	Fleet vehicle maintenance
CNG Fueling	0	Fleet vehicle fueling

Source: LADWP 2017.

FIGURE 2-1

Regional Map

Mid Valley Water Facility Mitigated Negative Declaration

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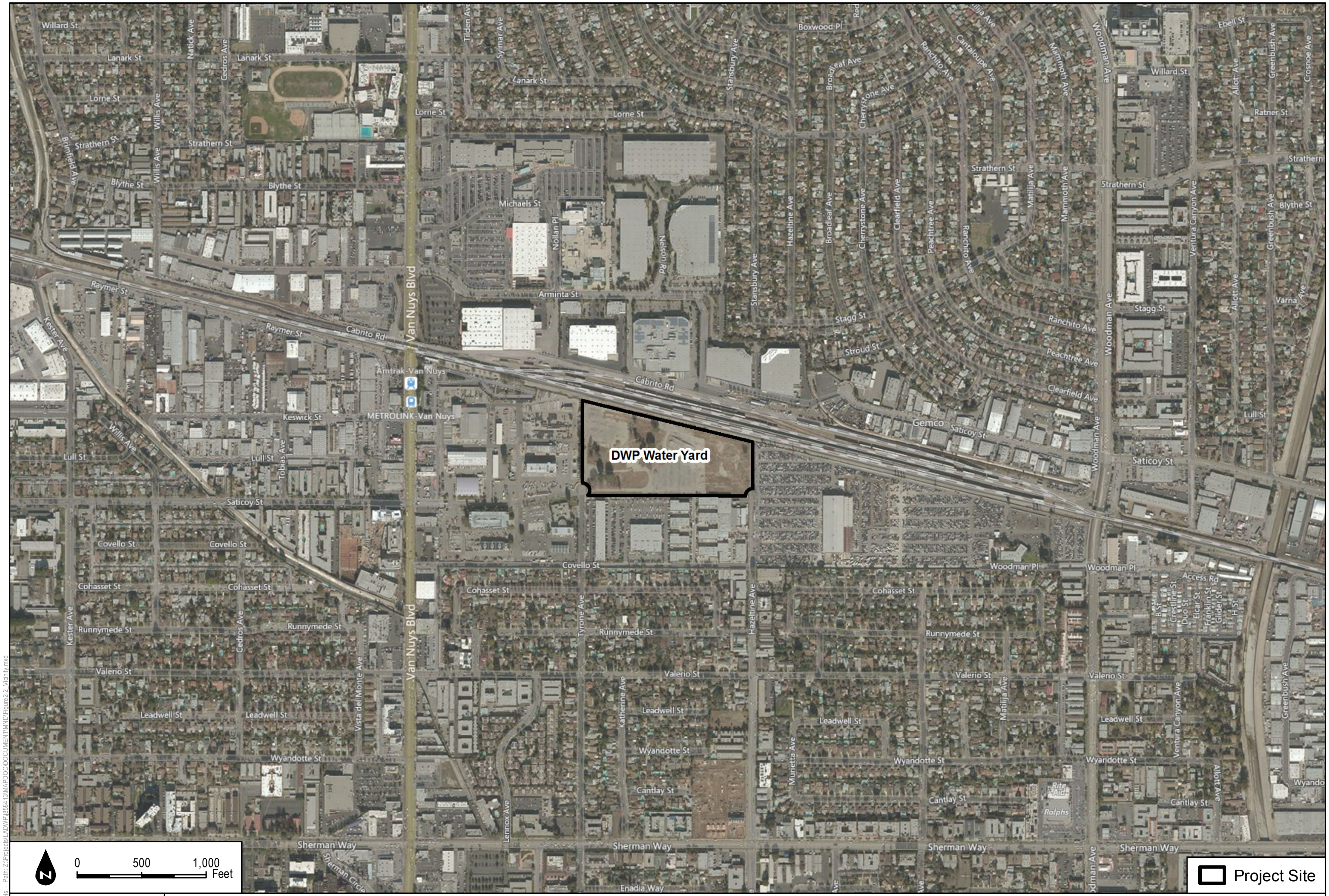

SOURCE: Bing Maps 2016

FIGURE 2-2

Vicinity Map

Mid Valley Water Facility Mitigated Negative Declaration

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SOURCE: Bing Maps 2016

FIGURE 2-3
Project Site

Mid Valley Water Facility Mitigated Negative Declaration

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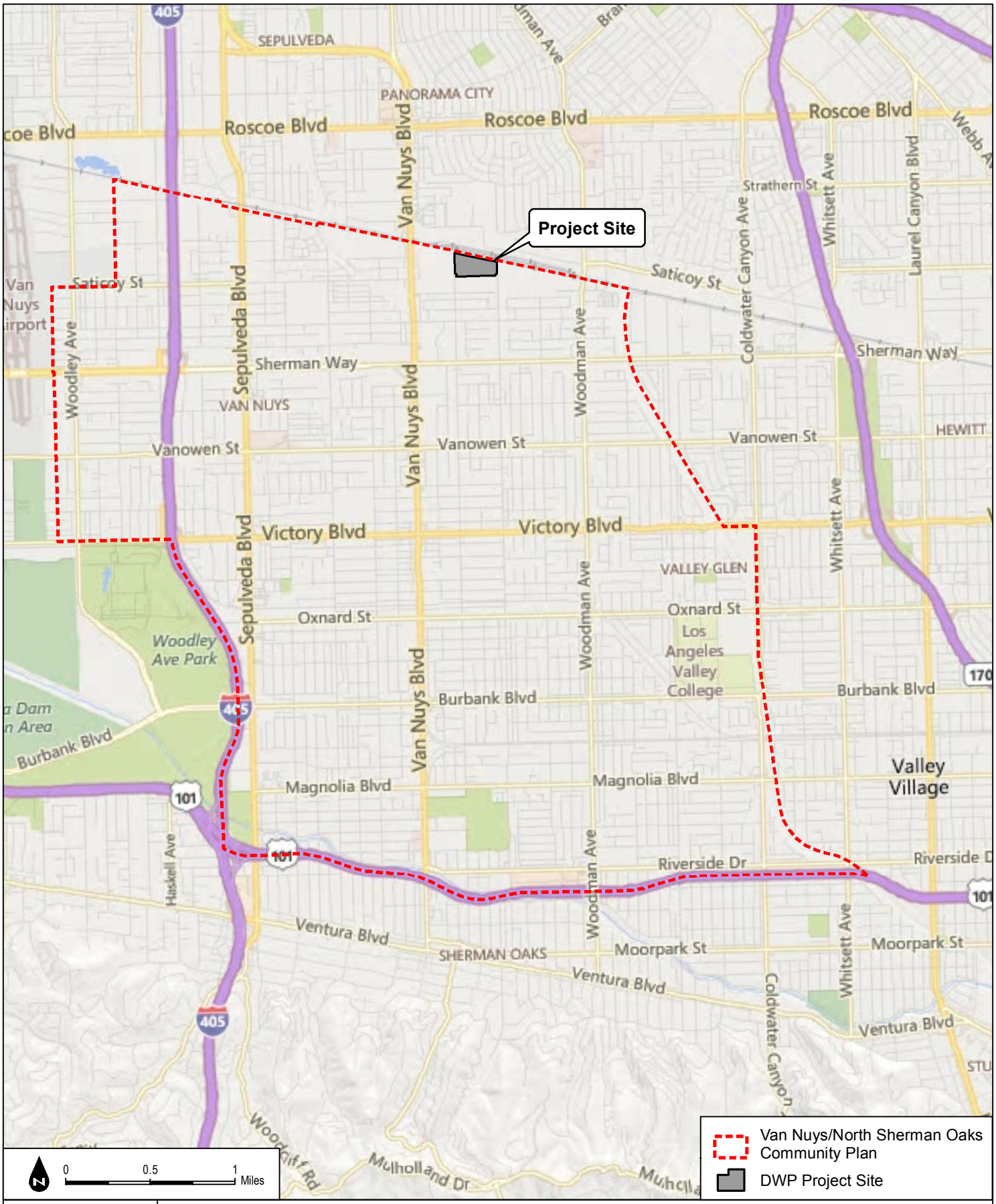

FIGURE 2-4

Van Nuys-North Sherman Oaks Community Plan Area

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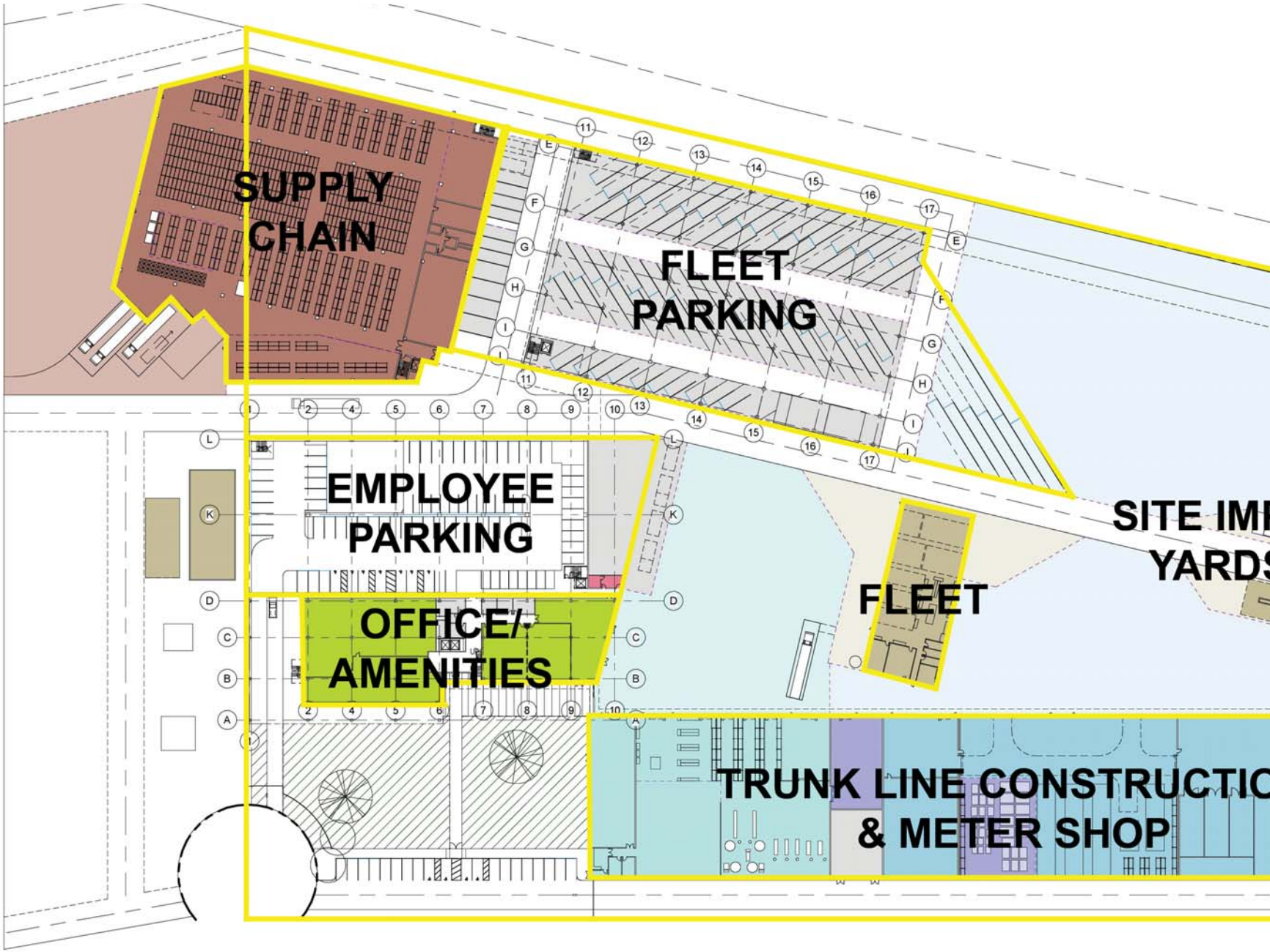
SUPPLY CHAIN
FLEET PARKING
EMPLOYEE PARKING
OFFICE/ AMENITIES
FLEET
SITE IMI
YARDS
TRUNK LINE CONSTRUCTIO
& METER SHOP

Entry/Community Interface

At the terminus of the existing Tyrone Avenue cul-de-sac would be the primary entry point for the public and staff of the Water Yard. Access at this location would be provided via Tyrone Avenue, and upon entering the property, visitors would be directed to park to the right along the southern portion of the property. A total of 20 visitor parking stalls would be provided. Staff entering the site would continue straight along an access driveway that would lead to the aboveground, three-story parking structure with a total of 400 parking stalls.

The main three-story office building, totaling approximately 56,800 square feet, would be located immediately south of the aboveground staff parking structure, and would include a shared-use fitness center, men's and women's locker rooms (totaling 9,082 square feet), conference and training rooms (3,480 square feet), a break room (2,650 square feet), truck line engineering offices (12,079 square feet), a trouble board, an emergency operations center with shared conference rooms (totaling 10,819 square feet), and main line engineering offices (15,106 square feet). A total of 130 employees would be accommodated within this building. Between the office building to the north and the visitor parking to the south of the site would be a community demonstration garden. Access from the employee parking structure would be provided via dedicated pedestrian walkways located both at ground level and along elevated walkways.

Supply Chain Services

The proposed Supply Chain Services warehouse would be located in the northwestern portion of the Project site and actually straddle onto the Power Yard to facilitate the joint function that services both the Power System's and Water System's warehousing needs. The Supply Chain group, currently located at the LADWP Temple Yard Store 1 and Main Street Yard Store 2, is responsible for receiving and storing the majority of bulk deliveries equipment and materials which are unloaded and stored on high capacity racking systems.

Within the approximately 17,363-square-foot Supply Chain warehouse, offices and break rooms would be located on a mezzanine level and the loading docks for the Supply Chain Services would include four depressed large truck bays and two at-grade, smaller truck loading bays. A total of 54 employees would be located within this area of the proposed Project. Access to and from the warehouse would be through the internal roadway network within the Power Yard as well as via the Hazeltine Avenue entrance in the southeastern portion of the Project site.

CNG Fueling Station

The Power Yard currently includes a compressed natural gas (CNG) fueling station which is nearing the end of its service life. As part of the proposed Project, the existing CNG fueling station would be removed from service and a new upgraded CNG fueling station would be constructed on the Power Yard for use by both Power Yard and the future Water Yard fleet. The Water Yard would also have four CNG fueling stations, a truck wash, and spoils storage situated along the primary internal circulation road. The upgraded facility would include four vehicle fueling locations and would be located south of the Supply Chain Services warehouse also straddling the Power Yard and Water Yard.

Fleet Parking

Fleet Parking, which is currently located with department vehicles from East Valley, West Valley and the Rinaldi Yard, would be located in a new three-level, aboveground parking structure located east of the Supply Chain Warehouse and in the northern portion of the Project site. The parking structure would be designed with pull-through parking spaces and a minimum 15-foot grade clearance at grade level. Access to the upper floors would be provided with a relatively flat ramp with less than a ten percent slope. Additionally, electric vehicle charging stations would be located as required within the parking structure. The third, or top, level of the parking structure would be shaded by a canopy constructed of large photovoltaic panels. A total of 220 fleet vehicle parking stalls would be included within the parking structure.

Trunk Line Storage Yard

The northeastern 4.6 acres (202,272 square feet) of the Project site would be utilized as the Trunk Line Exterior Storage Yard for Trunk Line pipes and equipment. Currently the Trunk Line Yard is located at the Rinaldi Yard, which is located adjacent to the Los Angeles Aqueduct Filtration Plan and upon implementation of the proposed Project, all materials and workers would be relocated to this Project site. Yard space is required for storage of both construction materials and equipment, portions of which would be shielded by the perimeter wall along the northern boundary.

Shop and Maintenance Building

Located along the southern portion of the Project site would be an approximately 700-foot-long, 95,277-square-foot building housing shops and maintenance areas for the Meter Shop, Main Line and Trunk Line groups. The following components would be included in this linear building:

- Meter Shop (29,068 square feet) with 51 employees
- Main Line Construction Warehouse (18,819 square feet) with 114 employees
- Building Services (2,423 square feet) with no employees
- Manifold (3,024 square feet) with no employees
- Tool Storage (5,056 square feet) with no employees
- Wets Storage (5,179 square feet) with no employees
- Large Valve Testing facility (18,530 square feet) with no employees
- Coatings area (7,550 square feet) with 8 employees
- Weld Shop (10,450 square feet) with 4 employees

The Meter Shop group, comprised of approximately 51 employees, is responsible for receiving, testing, and calibrating approximately 45,000 meters annually. The existing Meter Shop group would be relocated from the West Valley Yard, which is located at 18718 Raven Street in Northridge.

North of the Meter Shop, located in the most western portion of the building, would be the approximately 34,099-square-foot Meter Shop. The primary function of the Meter Shop would be for receiving, calibrating and testing water meters.

Just to the east of the Meter Yard would be the approximately 8,907-square-foot Fleet Services shared jointly between both the Power Yard and Water Yard. The facility would ultimately provide both minor and major repairs on both fueled and CNG vehicles. A total of nine employees would be stationed within the Fleet Services.

East of the Fleet Services would be the Main Line Yard. The approximately 40,835-square-foot Main Line Yard would be utilized for exterior storage of valves and manifolds. The Main Line group is responsible for engineering design and installation of water supply pipes up to 20 inches in diameter and would be relocated from the West Valley Yard.

Circulation

Access to the Project site would be available in two locations: the western entrance to the Project site would be a Tyrone Avenue and the eastern entrance to the Project site would be via Hazeltine Avenue. Visitors to the site would access the site solely via Tyrone Avenue and would then park in dedicated visitor parking stalls immediately east of the Tyrone Avenue entrance. Employees would access the site during the morning hours via Tyrone Avenue, travel north on internal roadways, and park in the aboveground staff parking structure. Pedestrian access throughout the site would be separated from vehicle traffic via dedicated pedestrian walkways located both at grade and on elevated walkways. Fire and emergency vehicle access would be available along internal roadways circling the site perimeter. Deliveries to the site would be done via either the Power Yard to the west or via Hazeltine to the southeast. All department vehicles would enter and exit the Project site via the eastern Hazeltine Avenue access point. The roadway running through the center of the Project site would be available for use solely for delivery trucks and department vehicles.

Because Hazeltine Avenue would be used for access to the Project site, the City of Los Angeles Bureau of Engineering requires that Hazeltine Avenue be improved per the required street standards as a part of the proposed Project. As part of the proposed Project, a total of 323 linear feet of roadway, beginning at the southeast corner of the Project site and continuing south, would be improved. Improvements would include roadway widening to 36 feet with 23 feet of street and 13 feet of sidewalk. Additionally, a new 55-foot-radius cul-de-sac, similar to the one at the north end of Tyrone Avenue and the Project site, would be constructed. Roadway improvements would also include removing, replacing and repairing any broken cracked or off-grade street curb, gutters, and sidewalks as well as installation of storm drain outlets.

Security

Security would be provided at the site around the clock. The security staff located on site would have one individual stationed in the guard booth at the southeast (Hazeltine Avenue) entrance and one patrolling the site and able to respond to specific calls. Card reader access would be provided for employees to enter and exit at the southwest (Tyrone Avenue) entrance for personal vehicles. The entire perimeter of the Project site would be fenced, and camera surveillance would occur at the site 24 hours a day, 7 days a week. Emergency and fire department access would be provided along both the northern and southern frontages of the Project site via both Tyrone Avenue and Hazeltine Avenue.

2.3 Construction

The Mid Valley Water Facility would be constructed with a progressive design-build method with construction most likely beginning in 2023; however, the construction start date of November 2020 represents the worst-case scenario because equipment and vehicle emission factors for later years would be reduced due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years. The proposed schedule, construction equipment mix, and estimated hours of equipment operation per day used for this analysis is shown in Table 2-2. Table 2-2 also presents the estimated number of worker trips anticipated for each construction sequence.

Table 2-2. Anticipated Construction Scenario

		One-Way Vehicle Trips			Equipment		
Construction Subphase	**Construction Schedule**	*Average Daily Worker Trips*	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Site Preparation	11/1/2020–11/30/2021	18	2	0	Tractors/loaders/backhoes	4	8
					Rubber tired dozers	3	8
Grading	12/1/2020–5/31/2021	16	2	11,118	Excavators	1	8
					Graders	1	8
					Rubber tired dozers	1	8
					Tractors/loaders/backhoes	3	8
Trenching & Underground Utilities	6/1/2021–6/30/2021	10	2	0	Plate compactors	1	8
					Tractors/loaders/backhoes	2	8
					Trenchers	1	8
Perimeter Wall Construction	7/1/2021–7/30/2021	6	4	0	Bore/drill rigs	1	8
					Cement and mortar mixers	1	8
					Concrete/industrial saws	1	8
					Paving equipment	1	8
Paving & Site Infrastructure	8/1/2021–8/31/2021	16	0	0	Pavers	2	8
					Paving equipment	2	8
					Rollers	2	8
Office Building and Staff Parking Structure Construction	9/1/2021–5/31/2022	18	12	0	Cranes	1	4
					Forklifts	2	6
					Tractors/loaders/backhoes	2	8
					Forklifts	2	7
					Generator sets	1	8
					Tractors/loaders/backhoes	1	6
					Welders	3	8

Table 2-2. Anticipated Construction Scenario

Construction Subphase	Construction Schedule	One-Way Vehicle Trips			Equipment		
		Average Daily Worker Trips	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Water Distribution Shop and Maintenance Building Construction	9/1/2021–7/30/2022	48	24	0	Cranes	1	8
					Forklifts	2	7
					Generator sets	1	8
					Tractors/loaders/backhoes	1	6
					Welders	3	8
Department Fleet Vehicles Parking Structure Construction	9/1/2021–8/31/2022	68	4	0	Cranes	1	8
					Forklifts	2	7
					Generator sets	1	8
					Tractors/loaders/backhoes	1	6
					Welders	3	8
Supply Chain Services Warehouse Construction	9/1/2021–8/31/2022	28	16	0	Cranes	1	6
					Forklifts	1	6
					Generator sets	1	8
					Tractors/loaders/backhoes	1	6
					Welders	3	8
Fleet Maintenance Building and CNG Dispensing Area Construction	9/1/2021–7/30/2022	16	10	0	Cranes	1	4
					Forklifts	2	6
					Tractors/loaders/backhoes	2	8
					Pavers	1	6
					Paving equipment	1	8
					Rollers	1	7
					Tractors/loaders/backhoes	1	8
Architectural Coating	9/1/2022–11/30/2022	44	22	0	Air compressors	1	6
Street Improvement of Hazeltine Ave.	9/1/2022–01/30/2023	16	2	4,000	Excavators	1	8
					Graders	1	8
					Rubber tired dozers	1	8
					Tractors/loaders/backhoes	3	8

Source: LADWP

2.4 Required Permits and Approvals

LADWP is the lead agency for the proposed Project pursuant to CEQA Guidelines Section 15367. The proposed Project would require the following discretionary approvals from LADWP:

- Adoption of this MND by the City of Los Angeles Board of Water and Power Commissioners with a finding that it complies with CEQA.

Approvals from other regulatory agencies may also be required as follows:

- Site Plan Review by the City of Los Angeles Planning Department
- State Water Resources Control Board: LADWP must submit a Notice of Intent and Stormwater Pollution Prevention Plan to the State Water Resources Control Board to comply with the General Construction Activity National Pollutant Discharge Elimination System Permit.
- South Coast Air Quality Management District (SCAQMD) shall issue a:
    - Permit to construct
    - Permit to operate the proposed stationary sources
- Los Angeles Department of Building and Safety shall issue a:
    - Building Permit
    - Disabled Access
    - Grading and Soil Report Approval
- City of Los Angeles Bureau of Engineering shall issue a(n):
    - A Permit
    - B Permit
    - Sewer Connection
- City of Los Angeles Bureau of Sanitation Low Impact Development Ordinance Review and Approval
- City of Los Angeles Department of Cultural Affairs – Design Review
- Los Angeles County Flood Control – Design Review
- City of Los Angeles Department of Transportation Review

2.5 References

City of Los Angeles. 2016. "Zoning Information and Map Access System (ZIMAS)." Accessed March 30, 2016. http://zimas.lacity.org/.

LADWP (Los Angeles Department of Water and Power). 2017. *Feasibility Study Revision B*. September 2017.

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3 INITIAL STUDY CHECKLIST

The following discussion of potential environmental effects was completed in accordance with Section 15063(d)(3) of the CEQA Guidelines (2019) to determine if the proposed Project may have a significant effect on the environment.

1. Project title:

Mid Valley Water Facility Project

2. Lead agency name and address:

Los Angeles Department of Water and Power
Environmental Planning and Assessment
111 North Hope Street, Room 1044
Los Angeles, California 90012

3. Contact person and phone number:

Kathryn Laudeman
Environmental Planning and Assessment
Los Angeles Department of Water and Power
213.367.6376

4. Project location:

7600 Tyrone Avenue
Van Nuys, California 91405

5. Project sponsor's name and address:

Los Angeles Department of Water and Power
111 North Hope Street
Los Angeles, California 90012

6. City Council District:

District 2

7. Neighborhood Council District:

Van Nuys Neighborhood Council

8. General plan designation:

Light Manufacturing

9. Zoning:

M2-1

10. Description of Project:

Refer to Section 2 of this MND.

11. Surrounding Land Uses and Setting:

Refer to Section 2.1 of this MND.

12. Responsible/Trustee Agencies:

Refer to Section 2.4 of this MND.

13. Reviewing Agencies:

Refer to Section 2.4 of this MND.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklists on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature _____ Date _____

EVALUATION OF ENVIRONMENTAL IMPACTS

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the Project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on Project-specific factors as well as general standards (e.g., the Project will not expose sensitive receptors to pollutants, based on a Project-specific screening analysis).

All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.

"Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-Than-Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in a. below, may be cross-referenced).

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

a. Earlier Analysis Used. Identify and state where they are available for review.

b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the Project.

Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

The explanation of each issue should identify:

a. The significance criteria or threshold, if any, used to evaluate each question; and

b. The mitigation measure identified, if any, to reduce the impact to less than significant.

3.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character and quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) Would the Project have a substantial adverse effect on a scenic vista?

No Impact. Scenic vistas generally refer to views of expansive open space areas or other natural features, such as mountains, undeveloped hillsides, large natural water bodies, or coastlines. Less commonly, certain urban settings or features, such as a striking or renowned skyline, may also represent a scenic vista. Under CEQA, scenic vistas also generally, although not exclusively, refer to views that are accessible to broader segments of the public, rather than those available to a limited number of private entities.

The Project site is located within the urbanized area of the Van Nuys area of the City of Los Angeles (City). While the Project site is currently vacant, the site is immediately surrounded by railroad tracks to the north, commercial and industrial uses to the north, east, south, and the LADWP Power System site to the west. The presence of industrial development adjacent to the Project site limits opportunities for particularly scenic vista points in the surrounding area. The City of Los Angeles General Plan, Conservation Element (City of Los Angeles 2001) defines scenic views or vistas as the panoramic public view access to natural features, including

views of the ocean, striking or unusual natural terrain, or unique urban or historic features. Specifically, the Conservation Element identifies the San Gabriel and Santa Susana Mountains, Santa Monica Mountains, Palos Verdes Hills, Pacific Ocean, and the Los Angeles River and its associated tributaries and flood plains as prominent topographic features within the City. Due to the presence of development in the area surrounding the Project site, views of these features are not available. The Van Nuys–North Sherman Oaks Community Plan (City of Los Angeles 1998) does not identify any scenic vistas in the area. Furthermore, similar urban and developed communities and cities containing limited natural scenic resources surround the Van Nuys area. Given these factors, implementation of the proposed Project would not have an impact on scenic vistas.

b) Would the Project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Within Los Angeles County, only State Route 2 (SR-2; also known as the Angeles Crest Highway) from La Cañada-Flintridge north to the San Bernardino County line is an officially designated state scenic highway (SR-2 is located more than 13 miles east of the Project site) (Caltrans 2011). The closest eligible state scenic highway is Interstate 210 (I-210) from I-15 to near Tunnel Station to SR-134; however, this segment of the highway is located more than 5 miles northeast of the Project site. In addition, the City of Los Angeles General Plan, Conservation Element identifies Sherman Way as a scenic highway, which is 0.5 mile south of the Project site (City of Los Angeles 2001). Due to the presence of intervening development and landscaping, views to the Project site are not available from the eligible state scenic highway segment of I-210 or Sherman Way. Implementation of the Project would have no effect on scenic resources within a scenic highway.

c) Would the Project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. The proposed Project site is located in within the City of Los Angeles, in an area that is predominantly light industrial uses. Per the California Public Resources Code Section 21071, the proposed Project site is within an urbanized area. The Project site is located within the M2-1 zone, with a General Plan land use designation of Light Manufacturing. The site is also located within Van Nuys–North Sherman Oaks Community Plan. The proposed Project would consolidate and upgrade LADWP facilities, which would be consistent with the existing zoning and land use designation.

The City of Los Angeles General Plan Conservation Element

The City of Los Angeles General Plan Conservation Element contains a Land Form and Scenic Vistas Policy to encourage development to retain significant existing land forms (e.g., ridgelines, bluffs, unique geologic features) and unique scenic (historic, ocean, mountains, unique natural features) and/or make possible public

view or other access to unique features or scenic views. The Project site currently an empty property containing unkempt landscaping, vacant patches of dirt, ornamental trees, light poles, and bollards. Therefore, no existing land forms exist on site. The area surrounding the Project site generally has an industrial appearance. The site is immediately surrounded by railroad tracks to the north, commercial and industrial uses to the north, east, south, and the LADWP Power System site to the west. The Project site is approximately 5 miles west of the nearest mountains in La Tuna Canyon Park, and 13 miles to the ocean. As such, the Project site does not provide public views of unique features or scenic views. Thus the Project would not conflict with the applicable General Plan polices governing scenic quality.

Los Angeles Municipal Code

The Los Angeles Municipal Code (LAMC) Section 13.04 encourages clustering of development in order to reduce grading and preserve existing natural terrain (City of Los Angeles 2019). LAMC Section 17.50-E restricts density on the basis of the calculated average of the ungraded slopes at selected contours within a parcel that is proposed for divisions of land. The Project would redevelop 17.3 acres of empty property already owned by LADWP within an urbanized area.

Scenic Resource Areas, defined in Section 22.44.1990 of the LAMC, establishes Scenic Resource Areas as areas designated on the Scenic Resources map of the LUP as Scenic Elements, Significant Ridgelines, or Scenic Routes; places on, along, within, or visible from Scenic Routes, public parklands, trails, beaches, or State waters that offer scenic vistas of the mountains, canyons, coastlines, beaches, or other unique natural features; or public parkland and recreation areas identified on the Recreation map of the LUP. The Proposed Project is not designated as or adjacent to a Scenic Element, Significant Ridgeline, or Scenic Route. In addition, the Project site does not provide views from or to the listed natural resource areas. Views of the Project site are further detailed below:

From the north, the site is observable from the railroad tracks and commercial and industrial uses to the north. There are a few ornamental trees along the northern site boundary that would be removed. A 12-foot-high perimeter security wall with razor wire and cameras would be installed along the site's northern boundary. It is expected that the proposed department vehicle parking structure, Supply Chain Services building, and Main Line Yard would not be visible from the industrial uses to the north because the proposed perimeter wall would obstruct the view.

From the east, the site is observable from the used car sales lot to the east. No perimeter wall is proposed for the eastern boundary; therefore, the proposed Main Line Yard and Trunk Line building would be visible from the used car sales lot. However, the Main Line Yard would be visually consistent with the used car sales lot to the east of the Project site. Additionally, the Trunk Line building would also be visually consistent with the light industrial and commercial uses south of the Project site.

From the south, views of the site are available from light industrial and commercial properties to the south. It is expected that the proposed Meter Shop and Trunk Line buildings to be located along the southern Project boundary would be visible from the majority of the commercial and industrial uses to the south. Additionally, an existing multi-story Time Warner Cable building is set back from the Project site by 230 feet; therefore, the proposed buildings may be visible. However, the proposed Trunk Line Construction and Meter Shop building would not substantially degrade the character of the site as the surrounding area already has an industrial appearance, thus would be visually consistent.

From the west, the Project site is visible from the adjacent LADWP Power Yard. Several ornamental trees located along the western border would be removed under the Project; therefore, the proposed Supply Chain Services building, employee parking, office and amenities buildings, and landscaped area would be visible from the LADWP Power Yard. However, these new facilities and buildings would not substantially degrade the character of the site, as the site would have a similar industrial appearance to the existing adjacent LADWP Power Yard.

As such, the Project would not conflict with the applicable LAMC policies governing scenic quality.

Van Nuys–North Sherman Oaks Community Plan

The Van Nuys–North Sherman Oaks Community Plan encourages the retention of visual open space. Within Industrial areas, the following policies apply to buildings and structures:

1. Designing the site and building(s) to convey visual interest and shall be visually compatible with adjacent uses.
2. Treating large expanses of blank walls and tilt-up concrete walls visible from the public right-of-way with contrasting complementary colors, building plane variation, murals, planters and/or other landscape elements to create visual interest.
3. Screening of mechanical and electrical and building appurtenances from public view.
4. Screening of all rooftop equipment and building appurtenances from public view.
5. Requiring the enclosure of trash areas for all projects.
6. Requiring freestanding masonry walls in a front yard to be a minimum of 3.5 feet and decorative, or walls in a side or rear yard to be a minimum of 5' 9" and decorative with a landscaped setback of 5 feet.

The Project site is surrounded by railroad tracks to the north, commercial and industrial uses to the north, east, south, and the LADWP Power System yard to the west. The only public roadway adjacent to the Project site is the segment of Tyron Avenue that dead-ends along the southern boundary. From there, it is expected that the proposed Trunk Line Construction and Meter Shop building located along the southern Project boundary would be visible from the majority of the commercial and industrial uses to the south. However, the proposed Trunk

Line Construction and Meter Shop building would not substantially degrade the character of the site as the surrounding area already has an industrial appearance, thus would be visually consistent. Given the area surrounding the Project site generally has an industrial appearance (see Figure 3-1, Existing Site Photos A and B, and Figure 3-2, Existing Site Photos C and D), the proposed Project would not conflict with the applicable Nuys–North Sherman Oaks Community Plan policies governing scenic quality.

LEFT: Photo A - Facing North towards Railroad

LEFT: Photo C - Facing Southeast towards Industrial Uses

RIGHT: Photo D - Facing West towards LADWP Power Yard

In summary, while portions of the proposed perimeter wall would be visible from surrounding industrial and commercial land uses, the proposed perimeter wall would be consistent with the existing appearance of adjacent uses surrounding the Project site and consistent with the applicable policies governing scenic quality. For these reasons, no impact would occur.

d) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-Than-Significant Impact. The Project would require nighttime lighting for safety and security. Exterior lighting circuits would be controlled by photocells. Dusk to dawn circuits would be photocell controlled and would include life-safety egress lighting, security, and all-night lighting. Where exterior lighting is required for personnel and facility security, emergency power backup would be provided. Exterior lighting is expected to be minimal; however, perimeter walls are proposed for the northern and southern Project boundaries and would therefore partially obstruct night-time lighting.

The proposed equipment would consist of a variety of building materials ranging from non-reflective surfaces to surfaces that may result in a limited source of glare (i.e., glass, copper anodized corrugated metal panels, steel). However, the entire perimeter of the Project site would be fenced, which would help diffuse any intermittent or transient reflections or glare. Furthermore, the used car lot to the east would have limited views of the proposed buildings as the laydown yard would be located along the eastern edge of the Project site and would create a buffer between the proposed buildings and the used car lot. As such, both lighting and glare impacts from the Project would be less than significant.

References

Caltrans (California Department of Transportation). 2011. "California Scenic Highway Mapping System." Accessed January 2019. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.

City of Los Angeles. 1998. Van Nuys–North Sherman Oaks Community Plan. Adopted September 9, 1998. http://cityplanning.lacity.org/complan/pdf/vnycptxt.pdf.

City of Los Angeles. 2001. "Conservation Element." In *The City of Los Angeles General Plan*. Adopted September 26, 2001. http://planning.lacity.org/cwd/gnlpln/consvelt.pdf.

City of Los Angeles. (2019). Official City of Los Angeles Municipal Code, Sixth Edition. Current through Amendments Adopted as of March 31, 2019. Accessed June 7, 2019. http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc.

3.2 Agriculture and Forestry Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project site located within the urban setting of the Van Nuys area of the City. The site is currently a vacant dirt lot with a few stands of trees and parking lot light poles. Although the Project site is outside of the survey boundary area of the California Department of Conservation's Farmland Mapping and Monitoring Program (CDOC 2016), the developed, urban character of the surrounding area suggest that the appropriate Farmland Mapping and Monitoring Program mapping designation would be "Urban and Built-Up Land." Therefore, development of the Project site as proposed would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impacts would occur, and no mitigation is required.

b) Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Williamson Act, also known as the California Land Conversion Act of 1969 (California Government Code Section 51200 et seq.), preserves agricultural and open space lands from the conversion to urban land uses by establishing a contract between local governments and private landowners to voluntarily restrict their land holdings to agricultural or open space use. The Project site is not located on any lands with Williamson Act contracts. The Project site is currently designated as a Light Industrial Zone (M2-1) and does not support agricultural uses (City of Los Angeles 2017). As such, development of the Project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impacts would occur, and no mitigation is required.

c) Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The Project site is currently designated as a Light Industrial Zone (M2-1). The Project site does not support agriculture or timberland use, and does not support forest land. Therefore, development of the Project site as proposed would not conflict with existing zoning for, or cause rezoning of, forest land, timberland or timberland zoned Timberland Production. No impact would occur, and no mitigation is required.

e) Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed in Section 3.2(c), the Project site does not support agriculture or timberland use, and does not support forest land. Therefore, development of the Project site as proposed would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

f) Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As discussed in Sections 3.2(a) through 3.2(d), the site is developed and does not currently support farmland or forest land. Therefore, development of the Project site as proposed would not result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur.

References

California Government Code, Sections 51200–51297. California Land Conservation Act of 1969.

CDOC (California Department of Conservation). 2016. "Los Angeles County Important Farmland 2014." April 2016. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2014/los14.pdf

City of Los Angeles. 2017. ZIMAS – City of Los Angeles Zoning Property Information. Accessed January 2019. http://zimas.lacity.org/.

3.3 Air Quality

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?	☐	☐	☒	☐

The analysis in this section is partially based on the May 2019 Health Risk Assessment (HRA) prepared for this Project and included in Appendix A. Appendix A also includes the California Emissions Estimator Model (CalEEMod) output with criteria air pollutant emissions estimates, and the California LINE Source Dispersion Model (CALINE4) Carbon Monoxide (CO) Hotspot modeling output.

a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Less-Than-Significant Impact. The Project is located within the South Coast Air Basin (SCAB), which is a 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. It includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The proposed Project is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).

The SCAQMD administers the Air Quality Management Plan (AQMP) for the SCAB, which is a comprehensive document outlining an air pollution control program for attaining all National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The SCAQMD implements control measures included in the AQMP as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment. On March 3, 2017, the SCAQMD approved the 2016 AQMP, which includes strategies to meet the NAAQS for the 8-hour O_3 standard by 2032, the annual $PM_{2.5}$ standard by 2021–2025, the 1-hour O_3 standard by 2023, and the 24-hour $PM_{2.5}$ standard by 2019. In its role as the local

air quality regulatory agency, SCAQMD also provides guidance on how environmental analyses should be prepared. This includes recommended thresholds of significance for evaluating air quality impacts. The 2016 AQMP is a regional blueprint for achieving air quality standards and healthful air. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gas (GHG) emissions and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017). Because mobile sources are the principal contributor to the SCAB's air quality challenges, the SCAQMD has been and will continue to be closely engaged with the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA), who have primary responsibility for these sources. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings, and industrial facilities to cleaner technologies in a manner that benefits not only air quality but also local businesses and the regional economy.

On April 7, 2016, the Southern California Association of Governments (SCAG) Regional Council adopted the *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability, and High Quality of Life* (2016–2040 RTP/SCS). The 2016–2040 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals (SCAG 2016a). The SCAQMD 2016 AQMP applies the updated SCAG growth forecasts assumed in the 2016–2040 RTP/SCS.

The SCAQMD has established criteria for determining consistency with the 2016 AQMP in Chapter 12, Sections 12.2 and 12.3, of the SCAQMD *CEQA Air Quality Handbook* (CEQA Handbook). The criteria are as follows:

- **Consistency Criterion No. 1:** The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards of the interim emissions reductions specified in the AQMP.
- **Consistency Criterion No. 2:** The proposed Project will not exceed the assumptions in the AQMP or increments based on the year of Project buildout and phase (SCAQMD 1993).

Consistency Criterion No. 1

Section 3.3(b) evaluates the Project's potential impacts in regard to CEQA Guidelines, Appendix G, Threshold 2 (the Project's potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation impact analysis). As discussed in the following text, the Project would not result in a significant and unavoidable impact associated with the violation of an air quality standard upon implementation of Mitigation Measure (MM) MM-AQ-1. Because the Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, the proposed Project would not conflict with Consistency Criterion No. 1 of the CEQA Handbook (SCAQMD 1993).

Consistency Criterion No. 2

While striving to achieve the NAAQS for ozone (O_3) and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$; fine particulate matter) and the CAAQS for O_3, and particulate matter with a diameter less than or equal to 10 microns (PM_{10}; coarse particulate matter), and $PM_{2.5}$ through a variety of air quality control measures, the Final 2012 AQMP also accommodates planned growth in the SCAB (SCAQMD 2013). Projects are considered consistent with, and would not conflict with or obstruct implementation of, the AQMP if the growth in socioeconomic factors (e.g., population, employment) is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Handbook).

The SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by the SCAG for its RTP/SCS (SCAG 2016b), which is based on general plans for cities and counties in the SCAB, for the development of the AQMP emissions inventory (SCAQMD 2017).[1] The SCAG 2016 RTP/SCS, and associated Regional Growth Forecast, are generally consistent with the local plans; therefore, the 2016 AQMP is generally consistent with local government plans. If a proposed project involves development that is greater than that anticipated in the General Plan and SCAG's growth projections, the proposed Project might conflict with the AQMP and may contribute to a potentially significant cumulative impact on air quality.

In 2026, upon buildout of the Project, it is anticipated that 416 employees would be employed at the Water Facility. Although the Project would involve the consolidation of existing LADWP water facilities and would be staffed by employees from the existing water facilities, the Project would involve an increase in employees to accommodate the new Water Facility. This analysis is a worst-case scenario, in which it is assumed that all 416 employees are new.

As part of the 2016–2040 RTP/SCS, SCAG has prepared population and employee projections for the region as part of the 2016–2040 RTP/SCS. Table 3-1 shows the employee projections from the 2016–2040 RTP/SCS for the City.

The majority of Trunk Line employees are field crew and work directly at field operations sites throughout the San Fernando Valley. Although employees traveling to and from the Project are expected to come from multiple cities throughout the San Fernando Valley, the existing and future LADWP employee distribution data is not available. Therefore, it was conservatively assumed that all future employees would come from the City.

[1] Information necessary to produce the emission inventory for the SCAB is obtained from the SCAQMD and other governmental agencies, including CARB, Caltrans, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socio-economic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into their Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socio-economic and transportation activities projections in their 2016 RTP/SCS are integrated in the 2016 AQMP (SCAQMD 2017).

Table 3-1. Employment Growth for the City of Los Angeles

SCAG 2016 RTP/SCS Employee Projections		
	2012	*2040*
Employment	1,696,400	2,169,100

Sources: SCAG 2016.

The Project would employ 416 workers, and it is conservatively assumed that the Project would introduce 416 new employees to Van Nuys, in the City of Los Angeles, although the Project would primarily employ existing LADWP workers from the sites being consolidated as part of the Project. This increase is only 0.10% of SCAG's 2016–2040 RTP/SCS overall growth of 472,700 employees for the City from 2012 to 2040.

Therefore, the Project would be consistent at a regional level with the underlying growth forecasts in the AQMP. Accordingly, the proposed Project would meet Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook. Therefore, implementation of the proposed Project would not result in a conflict with, or obstruct implementation of, the applicable air quality plan (i.e., the 2016 AQMP).

Summary

As described previously, the proposed Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, and would not conflict with Consistency Criterion No. 1. Implementation of the proposed Project would not exceed the demographic growth forecasts in the SCAG 2016 RTP/SCS; therefore, the proposed Project would also be consistent with the SCAQMD 2016 AQMP, which based future emission estimates on the SCAG 2016 RTP/SCS. Thus, the proposed Project would not conflict with Consistency Criterion No. 2. Based on these considerations, impacts related to the proposed Project's potential to conflict with or obstruct implementation of the applicable air quality plan would be less than significant.

b) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant with Mitigation Incorporated. A quantitative analysis was conducted to determine whether construction and operation of the Project would result in emissions of criteria air pollutants from mobile, area, and energy sources that may cause exceedances of the NAAQS or CAAQS or contribute to existing nonattainment of ambient air quality standards. The following discussion identifies potential short- and long-term impacts that would result from implementation of the Project.

SCAB Attainment Designation. An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards are set by the EPA or CARB, respectively, for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public

welfare. The criteria pollutants of primary concern that are considered in this air quality assessment include O_3, nitrogen dioxide (NO_2), CO, sulfur dioxide (SO_2), PM_{10}, and $PM_{2.5}$. Although there are no ambient standards for volatile organic compounds (VOCs) or oxides of nitrogen (NO_x), they are important as precursors to O_3.

The SCAB is designated as a nonattainment area for federal and state O_3 standards and federal and state $PM_{2.5}$ standards. The SCAB is designated as a nonattainment area for state PM_{10} standards; however, it is designated as an attainment area for federal PM_{10} standards. The SCAB is designated as an attainment area for federal and state CO standards, federal and state NO_2 standards, and federal and state SO_2 standards. While the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard (EPA 2018a).

SCAQMD Thresholds. Construction and operation of the proposed Project would result in emissions of criteria air pollutants for which CARB and the EPA have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause or contribute to violations of these standards. The SCAQMD has adopted significance thresholds, which, if exceeded, would indicate the potential to contribute to violations of the NAAQS or the CAAQS. The relevant SCAQMD thresholds are shown in Table 3-2.

A project would result in a substantial contribution to an existing air quality violation of the federal or state standards for O_3, which is a nonattainment pollutant, if the proposed Project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 3-2. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (VOC and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods.

Table 3-2. SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	*Construction (pounds per day)*	*Operation (pounds per day)*
VOCs	75	55
NO_x	100	55
CO	550	550
SO_x	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Pb[a]	3	3

Table 3-2. SCAQMD Air Quality Significance Thresholds

Toxic Air Contaminants and Odor Thresholds	
Toxic Air Contaminants[b]	Maximum incremental cancer risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and acute hazard index ≥ 1.0 (project increment)
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402
Ambient Air Quality Standards for Criteria Pollutants[c]	
NO_2 1-hour Average NO_2 Annual Arithmetic Mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)
CO 1-hour Average CO 8-hour Average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)
Ambient Air Quality Standards for Criteria Pollutants[c]	
PM_{10} 24-hour Average PM_{10} Annual Average	10.4 μg/m^3 (construction)[d] 2.5 μg/m^3 (operation) 1.0 μg/m^3
$PM_{2.5}$ 24-hour Average	10.4 μg/m^3 (construction)[d] 2.5 μg/m^3 (operation)

Source: SCAQMD 2015a.
Notes: VOC = volatile organic compound; lb/day = pounds per day; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; Pb = lead; NO_2 = nitrogen dioxide; ppm = parts per million; μg/m^3 = micrograms per cubic meter.
GHG thresholds for industrial projects, as added in the March 2015 revision to the SCAQMD Air Quality Significance Thresholds, were not included in Table 3-2, as they will be addressed in Section 3.8, Greenhouse Gas Emissions.

[a] The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed Project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] Toxic air contaminants include carcinogens and noncarcinogens.
[c] Ambient air quality standards for criteria pollutants based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
[d] Ambient air quality threshold based on SCAQMD Rule 403.

Construction Emissions. Construction of the proposed Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity and the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated, with a corresponding uncertainty in precise ambient air quality impacts.

Emissions from the construction phase of the proposed Project were estimated using CalEEMod, Version 2016.3.2. The construction schedule and scenario used for the criteria air pollutant emissions modeling of

the Project are shown in Section 2.3, Construction. For this analysis, it was assumed that heavy construction equipment would operate 5 days a week (22 days per month) during Project construction. Table 2-2, Anticipated Construction Scenario, presents the estimated number of workers anticipated for each construction sequence. To estimate motor vehicle emissions generated by worker vehicles (i.e., light-duty trucks and automobiles), it was assumed that each worker would generate two one-way trips per day. In addition to construction equipment operation and worker trips, emissions from hauling trucks and vendor trucks were estimated. The number of daily worker trips were based on CalEEMod default values for the site preparation, grading, trenching, and paving phases. During the site preparation, grading, and trenching phases, vendor trip estimates were modified to reflect two water truck trips per day. During the construction and architectural coating phases, CalEEMod default values were revised for worker and vendor trips.[2]

Phase 1 grading would require the import of 88,944 cubic yards of soil and export of 88,944 cubic yards of soil. This would require 11,118 one-way haul trips. The CalEEMod default for grading phase length is 20 days for a site that is greater than 5 acres (but less than 10 acres). Because grading would require the import and export of 177,888 cubic yards of soil, it would not be possible to finish grading in 20 days. Assuming that 43 truckloads could be processed on the site within a day, the default grading phase length was changed to 130 days. All trip distances were based on the CalEEMod defaults.

Implementation of the Project would generate construction-related air pollutant emissions from entrained dust, equipment and vehicle exhaust emissions, and architectural coatings. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in course PM_{10} and $PM_{2.5}$ emissions. The Project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during construction activities (SCAQMD 2005). Standard construction practices required under Rule 403 would be employed to reduce fugitive dust emissions, including watering of the active sites approximately three times daily depending on weather conditions. Internal combustion engines used by construction equipment and on-road vehicles would result in emissions of VOCs, NO_x, CO, PM_{10}, $PM_{2.5}$, and minimal emissions of sulfur oxides (SO_x). The application of architectural coatings, such as exterior application/interior paint and other finishes, would also produce VOC emissions, and the Project shall comply with SCAQMD Rule 1113, which proscribes the sale or application of high-VOC-content architectural coatings. Details of the construction emission assumptions and calculations are included in Appendix A.

Table 3-3 shows the estimated maximum daily construction emissions associated with the construction of the Project.

[2] CalEEMod calculates worker and vendor trips by multiplying a factor to the total building area (in thousands of square feet) anticipated as part of a project. However, since the proposed Project would separate construction into multiple phases, the worker and vendor trips were hand calculated to avoid overestimating these trips.

Table 3-3. Estimated Maximum Daily Construction Emissions – Unmitigated

Year	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
2020	5.27	75.07	37.46	0.13	11.59	5.95
2021	11.53	91.96	92.01	0.17	6.92	4.94
2022	72.11	83.67	90.35	0.17	6.25	4.31
2023	3.16	34.60	27.83	0.08	4.16	1.93
Maximum	*72.11*	*91.96*	*92.01*	*0.17*	*11.59*	*5.95*
SCAQMD Pollutant Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: See Appendix A for complete results.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.

These emissions reflect CalEEMod "mitigated" output, which accounts for compliance with SCAQMD Rule 403 (Fugitive Dust).As shown in Table 3-3, maximum daily construction emissions would not exceed the SCAQMD construction thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$. Furthermore, construction-generated emissions would be temporary and would not represent a long-term source of criteria air pollutant emissions. As such, the proposed Project would result in a less-than-significant impact during construction.

Operational Emissions. Operation of the Project would produce VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from stationary sources, area sources, including natural gas combustion and use of consumer products, and mobile sources (motor vehicle trips to and from the proposed Project). The proposed Project would primarily affect air quality through vehicular traffic generated by LADWP employees. Emissions of criteria air pollutants were estimated using CalEEMod. Project buildout was assumed to occur in 2026.

The Mid Valley Water Facility would include several different land use types, considering the proposed Project involves the consolidation of existing LADWP facilities. Table 3-4 shows the Project component and the assumed corresponding land use type in CalEEMod.

Table 3-4. Mid Valley Water Facility Component and Corresponding CalEEMod Land Use Type

Mid Valley Water Facility Component	CalEEMod Land Use Type
Water Distribution (Trunk Line Construction)	General Light Industry
Water Distribution (Main Line Construction)	General Light Industry
Water Distribution (Meter Shop)	General Light Industry
Water Distribution (Security)	General Office Building
Water Distribution (Entry/Community Interface)	General Office Building
Water Distribution (Emergency Operations Center and Trouble Board)	General Office Building
Building Services	General Office Building

Table 3-4. Mid Valley Water Facility Component and Corresponding CalEEMod Land Use Type

Mid Valley Water Facility Component	CalEEMod Land Use Type
Coatings Area	General Light Industry
Large Valve Testing Area	Research & Development
Supply Chain Services Warehouse	Unrefrigerated Warehouse-No Rail
Fleet Maintenance Building	Automobile Care Center
Aboveground Parking Structure	Enclosed Parking Structure
Laydown Area	Other Asphalt Surfaces
Roadway	Other Asphalt Surfaces

Source: See Appendix A for complete assumptions and results.

Emissions associated with daily traffic were modeled using trip generation rates provided in the Transportation Impact Study prepared for the proposed Project (Appendix F). The proposed Project was assumed to generate 1,453 daily trips, as discussed in the Transportation Impact Study. CalEEMod default trip rates, trip percentages, and trip purpose percentages vary by CalEEMod land use type. As shown in Table 3-4, the proposed Project would consist of several types of land uses. All trips were allocated to the General Light Industry land use type in CalEEMod, which assumes the most conservative trip percentages and trip purpose percentages. This would equate to a trip rate of 11,72 trips per 1,000 square feet on weekdays. CalEEMod default trip rates were adjusted for Saturdays and Sundays (based on the weekday trip rate) for a trip rate of 2.22 and 1.14 trips per day per 1,000 square feet, respectively.

CalEEMod default data for temperature, variable start information, and emission factors were conservatively assumed for the model inputs. Project-related traffic was assumed to consist of a mixture of vehicles in accordance with the model outputs for traffic. Emission factors representing the vehicle mix and emissions for 2026 were used to represent proposed Project buildout.

CalEEMod was used to estimate emissions from the area sources, which include natural gas appliances, space and water heating, gasoline-powered landscape maintenance equipment, use of consumer products, and architectural coatings for maintenance of buildings. The estimated operational area source emissions were based on land use defaults of the proposed Project.

CalEEMod was also used to calculate emissions associated with forklift operation. It was assumed that 10 forklifts would operate on site for 4 hours a day. Exterior forklifts would be powered by diesel engines and would operate at 89 horsepower.

The proposed Project would also include the following stationary sources:

- One paint spray booths that would be collocated in the southern portion of the site;

- A CNG fueling station that would be located in the southeastern portion of the site, with a dispenser located to the east of the internal roadway; and
- Four emergency generators that would be located in four different locations, specifically immediately north of the weld shop, in the meter yard, north of Supply Chain Services, and near the parking structure.

The HRA prepared for the Project calculated the criteria air pollutant emissions associated with these stationary sources, forklifts, and on-site delivery truck exhaust. However, the emissions associated with the CNG fueling station would be negligible, because CNG is not considered to be a toxic air contaminant (TAC), and therefore, were not estimated.

For the spray booth, material mass balance calculations were performed for two types of SCAQMD Rule 1151(d)(1) compliant coatings to be used in the booths. These include "Amershield," with a VOC content of 223 grams per liter (g/l) and "Amerlock," with a VOC content of 90 g/l VOC as applied. Per Rule definitions, the VOC contents are expressed as less water and less exempt compounds. Both coatings are under the 250 g/l limit in the SCAQMD Rule 1151 for "Any Other Coating Type." It was assumed that the booth would operate four days per week and use six gallons of coatings per day each.

The four Tier 2 diesel emergency generators would be permitted to operate up to 50 hours per year for maintenance and testing purposes under the statewide Airborne Toxic Control Measure regulation (17 CCR 93115). As Tier 2 engines (40 CFR 89.112; EPA 2016), emissions of diesel particulate matter (DPM) are limited to 0.15 grams per brake horsepower-hour (g/BHP-hr).

Two scenarios were modeled to determine maximum daily criteria air pollutant emissions: maintenance and testing. Maintenance would occur for a maximum of 30 minutes per day. The maintenance maximum fuel usage (i.e., input load factor) would vary depending on engine size and would range between 27% and 29% of maximum fuel consumption. The engine load factor was assumed to be 25%. Testing emissions were calculated assuming operation for 24 hours at a 100% load factor. Maintenance and testing criteria air pollutant emissions are shown in Table 3-5.

Table 3-5. Estimated Maximum Daily Emergency Generator Emissions (2026) – Unmitigated

Generator Location	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maintenance (Pounds per Hour)						
Generator 1 – Supply Chain	0.13	1.15	0.70	0.00	0.04	0.04
Generator 2 – Weld Shop	0.21	1.85	1.13	0.00	0.06	0.06
Generator 3 – Meter Yard	0.16	1.41	0.85	0.00	0.05	0.05
Generator 4 – Parking	0.11	1.03	0.62	0.00	0.04	0.04
Maintenance maximum (pounds per hour)	*0.21*	*1.85*	*1.13*	*0.00*	*0.06*	*0.06*
Daily totals (pounds per day)	**0.60**	**5.44**	**3.31**	**0.01**	**0.19**	**0.19**

Table 3-5. Estimated Maximum Daily Emergency Generator Emissions (2026) – Unmitigated

Generator Location	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Testing (Pounds per Day)						
Generator 1 – Supply Chain	22.8	205.1	124.7	0.2	7.2	7.1
Generator 2 – Weld Shop	34.2	307.6	187.0	0.4	10.8	10.7
Generator 3 – Meter Yard	26.4	237.6	144.5	0.3	8.3	8.3
Generator 4 – Parking	19.1	171.5	104.3	0.2	6.0	6.0
Daily totals (pounds per day)	**102.00**	**922.00**	**560.00**	**1.00**	**32.20**	**32.00**

Source: See Appendix A for complete results.
Notes: VOC = volatile organic compound; NOx = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; PM2.5 = fine particulate matter.

The maximum daily total emissions would occur during the emergency generator testing scenario. Table 3-6 presents the maximum daily area, energy, mobile source, on-site equipment, and stationary source emissions combined. The values shown are the maximum summer or winter daily emissions results from CalEEMod, or spreadsheet calculations in the case of the stationary sources. Table 3-6 presents both the emergency testing and maintenance scenarios separately, but combined with the maximum daily area, energy, mobile source, off-road equipment, and spray booth emissions. The emergency generator testing presents a worst-case scenario.

Table 3-6. Estimated Daily Maximum Operational Emissions (2026) – Unmitigated

Emissions Source	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Maintenance Scenario						
Area	6.80	0.00	0.07	<0.01	<0.01	<0.01
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	2.34	10.46	34.75	0.15	13.79	3.76
Forklifts	0.44	4.11	5.70	0.01	0.22	0.20
Spray Booths	7.84	—	—	—	1.60	1.60
Emergency Generators	0.60	5.44	3.31	0.01	0.19	0.19
Combined Total Emissions	**18.12**	**21.24**	**44.64**	**0.17**	**15.87**	**5.82**
SCAQMD Pollutant Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Testing Scenario						
Area	6.80	0.00	0.07	<0.01	<0.01	<0.01
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	2.34	10.46	34.75	0.15	13.79	3.76
Forklifts	0.44	4.11	5.70	0.01	0.22	0.20
Spray Booths	7.84	—	—	—	1.60	1.60

Table 3-6. Estimated Daily Maximum Operational Emissions (2026) – Unmitigated

Emissions Source	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Emergency Generators	102.00	922.00	560.00	1.00	32.20	32.00
Combined Total Emissions	**119.52**	**937.80**	**601.33**	**1.16**	**47.88**	**37.63**
SCAQMD Pollutant Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

Source: See Appendix A for complete results.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; a dash (—) represents information that is not available.

As shown in Table 3-6, the total daily operational emissions under the maintenance scenario would not exceed the SCAQMD operational significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$. However, under the worst-case testing scenario, the total daily operational emissions would exceed the SCAQMD operational significance thresholds for VOC, NO_x, and CO. These potential exceedances could result in significant impacts if unmitigated.

MM-AQ-1 would limit the hours of emergency generator testing and would require that testing of multiple generators would not occur on the same day. Table 3-7 presents the maximum daily area, energy, mobile source, on-site equipment, and stationary source emissions combined, upon implementation of MM-AQ-1. Because MM-AQ-1 would require that only one emergency generator operates on a single day, Table 3-7 presents the emergency generator with the highest emissions per day of operation (Generator 2- Weld Shop).

Table 3-7. Estimated Daily Maximum Operational Mitigated Emissions (2026) – Mitigated

Emissions Source	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Testing Scenario						
Area	6.80	<0.01	0.07	<0.01	<0.01	<0.01
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	2.34	10.73	34.75	0.15	13.79	3.76
Forklifts	0.44	4.11	5.70	0.01	0.22	0.20
Spray Booths	7.84	—	—	—	1.60	1.60
Emergency Generators (Gen 2 – Weld Shop)	4.28	38.45	23.38	0.05	1.35	1.34
Combined Total Emissions	**21.79**	**54.25**	**64.70**	**0.21**	**17.03**	**6.97**
SCAQMD Pollutant Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: See Appendix A for complete results.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; a dash (—) represents information that is not available.
Mitigated emissions account for implementation of MM-AQ-1.

As shown in Table 3-7, the total daily operational emissions under the testing scenario would not exceed the SCAQMD operational significance thresholds for VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$, upon implementation of MM-AQ-1. As such, the Project would result in a less-than-significant impact during operation upon implementation of MM-AQ-1.

Mitigation Measures

MM-AQ-1 No more than one emergency generator unit shall be operated for testing purposes on a single day. Each emergency generator shall not operate more than 3.0 hours per day for testing purposes. If engine models and specifications change from what was originally analyzed, engine testing time shall be limited so as not to emit more than 37 pounds per day of volatile organic compounds, 39 pounds per day of oxides of nitrogen, 508 pounds per day of carbon monoxide, 149 pounds per day of sulfur oxides, 134 pounds per day of particulate matter with a diameter less than or equal to 10 microns, and 49 pounds per day of particulate matter with an aerodynamic diameter less than or equal to 2.5 microns.

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. In considering cumulative impacts from the proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SCAB is designated as nonattainment for the CAAQS and NAAQS. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution to nonattainment status in the SCAB. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

The SCAB is a nonattainment area for O_3 and $PM_{2.5}$ under the NAAQS and is a nonattainment area for O_3, PM_{10}, and $PM_{2.5}$ under the CAAQS. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the SCAB including motor vehicles, off-road equipment, and commercial and industrial facilities. Construction and operation of the Project would generate VOC and NO_x emissions (which are precursors to O_3) and emissions of PM_{10} and $PM_{2.5}$. However, as indicated in Tables 3-3 and 3-7, Project-generated construction and operational emissions (with implementation of MM-AQ-1), respectively, would not exceed the SCAQMD emission-based significance thresholds for VOC, NO_x, PM_{10}, or $PM_{2.5}$; therefore, the Project would not cause a cumulatively significant impact.

Cumulative localized impacts could occur if the construction of a project component were to occur concurrently with another project. Construction schedules for potential future projects near the planning area are currently unknown; therefore, potential construction impacts associated with two simultaneous projects are speculative. The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145).

However, air pollutant emissions associated with construction activity would be reduced through implementation of control measures required by SCAQMD. Cumulative PM_{10} and $PM_{2.5}$ construction emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in SCAQMD. The maximum daily PM_{10} and $PM_{2.5}$ emissions would not exceed the significance thresholds during Project construction activities, although fugitive dust, as well as vehicle and equipment exhaust, generated during Project construction would contribute to the SCAB's nonattainment designation for PM_{10} and $PM_{2.5}$; however, this contribution would not be considered cumulatively considerable.

Furthermore, the Project would not conflict with growth assumptions in the SCAQMD 2016 AQMP, which addresses the cumulative emissions in the SCAB.

In 2026, upon buildout of the Project, it is anticipated that 416 employees would be employed at the Water Facility. As discussed in Section 3.3(a), this increase is only 0.10% of SCAG's 2016–2040 RTP/SCS overall growth of 472,700 employees for the City from 2012 to 2040. Therefore, the Project would be consistent at a regional level with the underlying growth forecasts in the AQMP.

Based on the above considerations, the proposed Project would not result in a cumulatively considerable contribution to the nonattainment pollutants in the SCAB, and this impact would be less than significant.

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Less-Than-Significant Impact. Sensitive receptors include residential land uses, schools, open space and parks, recreational facilities, hospitals, resident care facilities, daycare facilities, or other facilities that may house individuals with health conditions that would be affected by poor air quality.

Localized Significance Thresholds Analysis. The SCAQMD recommends the evaluation of localized NO_2, CO, PM_{10}, and $PM_{2.5}$ construction-related impacts on sensitive receptors in the immediate vicinity of a project site. Residences in the Project area would be located 570 feet from the Project site. These residents would be considered sensitive receptors that could be affected by construction-generated air pollutant emissions.

The Project site is located in Source Receptor Area 6 (West San Fernando Valley). The maximum number of acres disturbed on the peak day was estimated using the "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (SCAQMD 2011), which provides estimated acres per 8-hour day for crawler tractors, graders, rubber tired dozers, and scrapers. Based on the SCAQMD guidance, and assuming an excavator can grade 0.5 acres per 8-hour day (similar to graders, dozers, and tractors), it was estimated that the maximum acres on the Project site that would be disturbed by off-road equipment would be 6.5 acre per day (one excavator, one grader, four rubber tired dozer, and seven tractors/loaders/backhoes operating during the grading phase). It was assumed the proposed Project would disturb 5 acres per day, which is more conservative than 6.5 acres per day

based on lower LST emission thresholds. The closest receptors to construction activity would be the residents located 174 meters (570 feet) south of the Project site. Therefore, the SCAQMD Localized Significance Threshold (LST) thresholds for 100 meters (328 feet) was assumed.

Construction activities associated with the proposed Project would result in temporary sources of on-site fugitive dust and construction equipment emissions. Off-site emissions from vendor trucks, haul trucks, and worker vehicle trips are not included in the LST analysis (SCAQMD 2008). The SCAQMD LST Methodology specifies the maximum allowable daily emissions that would satisfy the localized significance criteria. The maximum daily on-site construction emissions are compared to the allowable emission rates for Source Receptor Area 2 in Table 3-8. Additional details of the LST analysis are provided in Appendix A.

Table 3-8. Localized Significance Threshold Analysis for Construction Emissions

Pollutant	Maximum Construction Emission Scenario Construction Phase	Maximum Construction Emissions (lb/day)	LST Criteria (lb/day)	Exceeds LST?
NO_2	Grading, Building Construction, Paving, Architectural Coating	177	226	No
CO	Grading, Building Construction, Paving, Architectural Coating	160	2,438	No
PM_{10}	Grading, Building Construction, Paving, Architectural Coating	9	51	No
$PM_{2.5}$	Grading, Building Construction, Paving, Architectural Coating	8	13	No

Source: SCAQMD 2008.
Notes: LST = Localized Significance Threshold; lb/day = pounds per day; NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
Construction emissions estimates are rounded to the nearest pound.
LSTs were determined based on the values for Source Receptor Area 6, a 5-acre site, at a distance of 100 meters from the nearest sensitive receptor.

As shown in Table 3-8, construction activities would not generate substantial emissions of pollutants to sensitive receptors. Impacts to sensitive receptors in the vicinity of Project construction would be less than significant.

Carbon Monoxide Hotspots. Regional trip generation and an increase the vehicle miles traveled within the local airshed and the SCAB would occur with or without the Project. Locally, traffic would be added to the City roadway system near the Project. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-Project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. These high CO concentrations ("hotspots") associated with roadways or intersections operating at an unacceptable level of service (LOS) are a concern because CO is toxic to humans in high concentrations; however, because of

continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing.

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. To verify that the proposed Project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO hotspots was conducted. The Transportation Impact Study (Appendix F) evaluated whether there would be a decrease in the LOS (e.g., congestion) at the intersections affected by the Project. The potential for CO hotspots was evaluated based on the results of the Transportation Impact Study. The California Department of Transportation (Caltrans) *Institute of Transportation Studies Transportation Project-Level Carbon Monoxide Protocol* (CO Protocol) (Caltrans 1997) was followed.

In accordance with the CO Protocol, CO hotspots are typically evaluated when (1) the project significantly increases traffic volumes (5% or higher) or otherwise worsens traffic flow, (2) projects involve signalized intersections at LOS E or F, (3) projects result in worsening of signalized intersection LOS to E or F, and (4) projects are suspected of resulting in higher CO concentrations than those existing within the region at the time of attainment demonstration.

In general, SCAQMD recommends that a quantitative CO hotspots analysis be performed for any intersections where the LOS worsens from C to D or for intersections that experience an increase in volume-to-capacity (V/C) ratio of 2% or more as a result of a project for intersections rated D or worse.

The Transportation Impact Study evaluated 18 key intersections in the Project vicinity to assess existing traffic conditions (2018), existing plus Project traffic conditions (2018), future (2023) without Project cumulative traffic conditions, and future (2023) with Project cumulative traffic conditions (see Appendix F). Table 3-9 these scenarios and whether a CO hotspot analysis is required per the CO Protocol and SCAQMD recommendations.

Table 3-9. Peak Hour Intersection CO Hotspot Screening

	Key Intersection	Time Period	Existing 2018 Traffic Conditions		Existing Plus Project Traffic Conditions		Year 2023 Cumulative Traffic Conditions		Year 2023 Cumulative Plus Project Traffic Conditions		Requires CO Hotspot Analysis?
			V/C	*LOS*	*V/C*	*LOS*	*V/C*	*LOS*	*V/C*	*LOS*	*Yes/No*
1.	Van Nuys Boulevard & Saticoy Street	a.m.	0.711	C	0.726	C	0.734	C	0.749	C	No
		p.m.	0.764	C	0.777	C	0.787	C	0.800	C	
2.	Van Nuys Boulevard & Valerio Street	a.m.	0.562	A	0.563	A	0.583	A	0.583	A	No
		p.m.	0.614	B	0.614	B	0.635	B	0.636	B	
3.	Tyrone Avenue & Covello Street[a]	a.m.	0.258	A	0.272	A	0.268	A	0.282	A	No
		p.m.	0.273	A	0.279	A	0.283	A	0.290	A	
4.	Hazeltine Avenue Valerio Street	a.m.	0.593	A	0.650	B	0.611	B	0.668	B	No
		p.m.	0.548	A	0.585	A	0.566	A	0.601	B	
5.	Woodman Avenue & Valerio Street	a.m.	0.809	D	0.824	D	0.833	D	**0.849**	**D**	**Yes**
		p.m.	0.631	B	0.661	B	0.653	B	0.683	B	
6.	Van Nuys Boulevard & Sherman Way	a.m.	0.660	B	0.666	B	0.699	B	0.705	C	**Yes**
		p.m.	0.763	C	0.770	C	0.797	C	**0.803**	**D**	
7.	Tyrone Avenue & Sherman Way	a.m.	0.464	A	0.468	A	0.481	A	0.485	A	No
		p.m.	0.439	A	0.440	A	0.458	A	0.458	A	
8.	Hazeltine Avenue & Sherman Way	a.m.	0.764	C	0.765	C	0.789	C	0.791	C	No
		p.m.	0.707	C	0.732	C	0.732	C	0.757	C	
9.	Woodman Avenue & Sherman Way	a.m.	0.892	D	0.900	D	0.920	E	**0.929**	**E**	**Yes**
		p.m.	0.849	D	0.853	D	0.877	D	**0.881**	**D**	

Notes:
CO = carbon monoxide; V/C = volume-to-capacity ratio; LOS = level of service; SCAQMD = South Coast Air Quality Management District.
Bold V/C and LOS data represent traffic conditions that trigger the SCAQMD CO Hotspot quantitative analysis requirements.

A total of three intersections would deteriorate from LOS C to D or would experience an increase in the V/C ratio of 2% or more as a result of the Project for intersections rated LOS D or worse under year 2023 cumulative plus Project traffic conditions, and therefore require a CO hotspot analysis per SCAQMD recommendations:

- Woodman Avenue & Valerio Street
- Van Nuys Boulevard & Sherman Way
- Woodman Avenue & Sherman Way

The potential impact of the proposed Project on local CO levels was assessed at these intersections with the Caltrans CL4 interface, based on the CALINE4, which allows microscale CO concentrations to be estimated along each roadway corridor or near intersections (Caltrans 1998a).

The modeling analysis was performed for worst-case wind angle, in which the model selects the wind angles that produce the highest CO concentrations at each of the receptors. The urban land classification of 100 centimeters (40 inches) was used for the aerodynamic roughness coefficient, which determines the amount of local air turbulence that affects plume spreading. The at-grade option was used for the roadway sections in the analysis; for at-grade sections, CALINE4 does not permit the plume to mix below ground level. The mixing zone, which is defined as the width of the roadway plus 3 meters (10 feet) on either side, was estimated for each roadway using Google Earth (2016). The calculations assume a mixing height of 10 meters (33 feet), a flat topographical condition between the source and the receptor (link height of 0 meters), and a meteorological condition of little to almost no wind (1.0 meter (3.3 feet) per second), consistent with Caltrans guidance (Caltrans 1998b).

The emission factor represents the weighted average emission rate of the local Los Angeles County vehicle fleet expressed in grams per mile per vehicle. Consistent with the Transportation Impact Study (Appendix F), emission factors for 2023, consistent with the Traffic Impact Study, representing the year 2023 cumulative plus Project traffic conditions, were predicted by EMFAC2017 and were used in the CALINE4 model. Emission factors were based on a 5-mph average speed for all of the intersections and a temperature of 40°F.[3] The hourly traffic volume anticipated to travel on each link, in units of vehicles per hour, was based on the Transportation Impact Study (Appendix F). Since Project-generated traffic would have the highest impact to the Van Nuys Boulevard & Sherman Way intersection in the PM peak hour, vehicle counts for the PM peak hour were used. Since Project-generated traffic would have the highest impact to the Woodman Avenue &

[3] January is usually the coldest month of the year in Burbank, with an average minimum temperature of 42°F (WRCC 2006). Assuming a 5-degree correction factor for PM traffic conditions, average evening temperature would be approximately 47°F. However, as these meteorological readings are for the Burbank Valley Pump Plant, and as CO concentrations generally increase with a decrease in temperature, a temperature of 40°F (4.4°C) was conservatively used to determine the emission factors in EMFAC and CO concentrations in CALINE4.

Valerio Street and Woodman Avenue & Sherman Way intersections in the AM hour, vehicle counts for the AM peak hour were used.

Four receptor locations at each intersection were modeled to determine CO ambient concentrations. A receptor was assumed on the sidewalk at each corner of the modeled intersections, for a total of four receptors adjacent to the intersection, to represent the possibility of extended outdoor exposure. CO concentrations were modeled at these locations to assess the maximum potential CO exposure that could occur in 2023. A receptor height of 1.8 meters (5.9 feet) was used in accordance with Caltrans recommendations for all receptor locations (Caltrans 1998b).

The maximum 1-hour CO background concentration of 3.0 parts per million (ppm), as measured in 2017,[4] was assumed in the CALINE4 model (EPA 2018b). The model provides predicted concentrations in ppm at each of the receptor locations. To estimate an 8-hour average CO concentration, a persistence factor of 0.7, as is recommended for urban locations, was applied to the output values.

The results of the model are shown in Table 3-10, CALINE4 Predicted CO Concentrations. Model input and output data are contained in Appendix A.

Table 3-10. CALINE4 Predicted CO Concentrations

Intersection	Maximum Modeled Impact Year 2023 Cumulative Plus Project Conditions (ppm)	
	1-hour	*8-hour*[a]
Woodman Avenue & Valerio Street	3.7	2.6
Van Nuys Boulevard & Sherman Way	3.7	2.6
Woodman Avenue & Sherman Way	3.8	2.7

Source: Caltrans 1998a (CALINE4).
Notes:
CO = carbon monoxide; ppm = parts per million; I-405 = Interstate 405, NB = Northbound
[a] 8-hour concentrations were obtained by multiplying the 1-hour concentration by a factor of 0.7, as referenced in Caltrans 1997, Table B.15.

As shown in Table 3-10, maximum CO concentrations predicted for the 1-hour averaging period would be 3.8 ppm, which is below the state 1-hour CO standard of 20 ppm (see Table 3-2 for state standards). Maximum predicted 8-hour CO concentrations of 2.7 ppm would be below the state CO standard of 9.0 ppm. Neither the 1-hour nor 8-hour state standard would be equaled or exceeded at any of the intersections studied. Accordingly, impacts would be less than significant.

[4] The closest CO monitoring station location to the proposed Project is the station located at 18330 Gault Street, Reseda.

Toxic Air Contaminants. An HRA was prepared to assess the potential for health risks due to emissions of TACs from the paint booths, new emergency generators, and diesel-fueled forklifts and truck traffic that would be required as part of the Project.

Emissions Estimates

Emission calculations were performed for two categories of stationary sources at the facility: one paint spray booth and four emergency generators powered by diesel engines. The diesel truck traffic and forklifts were modeled as line-volume sources. Although there would be a CNG fueling station associated with the Project, this source would have negligible TAC emissions, because CNG is not considered to be a TAC, and hence was not analyzed as part of the HRA.

Spray Booths

Material mass balance calculations were performed for two types of SCAQMD Rule 1151(d)(1) compliant coatings to be used in the booths: "Amershield" (223 g/l VOC as applied) and "Amerlock" (90 g/l VOC as applied). Per Rule definitions, the VOC contents are expressed as less water and less exempt compounds. Both coatings are under the 250 g/l limit in Rule 1151 for "Any Other Coating Type."

Both coatings are two-part chemistry where Part A is the resin and Part B is the hardener (catalyst) combined in a 3:1 ratio. It was estimated that the spray booth would operate four days per week and use six gallons of coatings per day each; therefore, annual usage would be as follows:

$$1\ booth \times 6\ gallons/day \times 4\ days/week \times 50\ weeks/year = 1{,}200\ gallons/year\ total\ usage$$

For risk assessment purposes, equal amounts of the two coatings were assumed, i.e., 600 gallons per year each comprising 450 gallons resin plus 150 gallons hardener. Safety Data Sheets were reviewed for each material and the amount of listed TACs in VOC and corresponding emission factors for each component determined as follows:

$$weight\ fraction\ TAC \times specific\ gravity \times 8.34\ lbs/gallon = lbs/gallon\ TAC$$

Annual and hourly mass emissions of each TAC shown in Appendix A were calculated as follows:

$$lbs/gallon\ TAC \times gallons/year\ sprayed = lbs/year\ TAC\ emitted$$

$$lbs/gallon\ TAC \times gallons/hour\ sprayed = lbs/hour\ TAC\ emitted$$

Since the booths would be used for applying Rule 1151(d)(1) compliant coatings, VOC controls are not required by the SCAQMD; thus, TACs in the VOC emissions would be uncontrolled.

For paint solids, particulate emissions are controlled by (1) HVLP (high-volume low-pressure) spray guns with a minimum transfer efficiency of 65%, and (2) high-efficiency particulate filters in the booth exhaust air pathway with a minimum control efficiency of 90%. Since the booths are totally enclosed, capture efficiency is 100%. Thus, combined capture and control efficiency (CCE) is 96.5%:

$$CCE = [1 - (1 - 0.65) \times (1 - 0.90)] = 0.965 \times 100 = 96.5\%$$

None of the coating materials proposed for use in the spray booths contain air toxic particulates, such as may be found in paint pigments. Therefore, although emissions of particulate matter were quantified using the methodology shown above, these emissions were not included in the dispersion modeling or HRA analysis (Appendix A).

Diesel Emergency Generators

Four Tier 2 diesel emergency generators would be permitted to operate up to 50 hours per year for maintenance and testing purposes under the statewide Airborne Toxic Control Measure regulation (17 CCR 93115). As Tier 2 engines (40 CFR 89.112; EPA 2016), emissions of DPM are limited to 0.15 g/BHP-hr.

For each model of emergency generator, the manufacturer's performance data sheet was obtained to determine (1) rated engine horsepower, and (2) fuel consumption rates at 100%, 75%, 50%, and 25% output loads. From these data, the percent of maximum fuel usage, i.e., input load factor, at maintenance load (i.e., 25% output) was calculated. Depending on engine size, these maintenance input load factors ranged between 27% and 29% of maximum fuel consumption. For each generator, DPM emissions were calculated as follows:

$$0.15\ g/BHP\text{-}hr \times rated\ BHP \times load\ factor \times 1\ lb/453.6\ g \times 50\ hours/year = lbs/year\ DPM$$

$$0.15\ g/BHP\text{-}hr \times rated\ BHP \times load\ factor \times 1\ lb/453.6\ g = lbs/hr\ DPM$$

For cancer and chronic hazard index risk assessment purposes, maintenance input load factors were used to predict the average annual DPM emission rates for 50 hours per year operation.

Diesel Forklifts and Truck Traffic

The primary TAC of concern emitted from the Project vehicle operations is DPM. DPM emissions were calculated using CalEEMod. All PM_{10} emissions from the forklift and on-site delivery truck exhaust were considered to be DPM for the HRA. The estimated emissions are shown in Table 3-11.

Table 3-11. TAC Emission Summary

Source	CAS No.	Toxic Air Contaminant	Annual Emissions (lb/yr)	Hourly Emissions (lb/hr)
Spray Booth	1330207	Xylene	261.5	0.33
	100414	Ethylbenzene	70.8	0.09
	108656	2-methoxy-1-methylethyl acetate	53.3	0.07
	822060	Hexamethylene diisocyanate	1.4	0.00
	95636	1,2,4-trimethylbenzene	56.3	0.07
	108952	Phenol	8.8	0.01
Gen 1 - Supply Chain	9901	DPM	4.1	0.30
Gen 2 - Weld Shop	9901	DPM	6.5	0.45
Gen 3 - Meter Yard	9901	DPM	4.9	0.35
Gen 4 - Parking	9901	DPM	3.6	0.25
Forklifts	9901	DPM	57.2	0.00918
Truck Traffic	9901	DPM	2.52	0.000378

Source: Appendix A

Modeling and Risk Assessment Methodologies

Air Dispersion Modeling

Air dispersion models calculate the atmospheric transport and fate of pollutants from the emission source. The models calculate the concentration of selected pollutants at specific downwind ground-level points, such as residential or off-site workplace receptors. The transformation (fate) of an airborne pollutant, its movement with the prevailing winds (transport), its crosswind and vertical movement due to atmospheric turbulence (dispersion), and its removal due to dry and wet deposition are influenced by the pollutant's physical and chemical properties and by meteorological and environmental conditions. Factors such as distance from the source to the receptor, meteorological conditions, intervening land use and terrain, pollutant release characteristics, and background pollutant concentrations affect the predicted air concentration of an air pollutant. Air dispersion models take all of these factors into consideration when calculating downwind ground-level pollutant concentrations.

The air dispersion modeling methodology was based on generally accepted modeling practices of the SCAQMD (2018). The air dispersion model used for this HRA was AERMOD Version 18081, with the Lakes Environmental Software implementation/user interface, AERMOD View™ Version 9.6.5. AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the X/Q values that are necessary for input into CARB's Hotspots Analysis and Reporting Program Version 2 (HARP2).

Regulatory defaults, the "Urban" modeling option,[5] and "Elevated" terrain were used for the analysis. AERMOD-ready pre-processed meteorological (MET) data files were taken directly from the SCAQMD's website. Burbank was chosen as the MET station closest to and most representative of conditions at the facility. The MET data files contained data for the years 2012 through 2016.

Digital elevation data were imported into AERMOD and elevations were assigned to receptors, buildings, and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View™ WebGIS import feature from the 30-meter National Elevation Dataset files from the U.S. Geological Survey.

HRA results were obtained at various locations around the facility. These receptor locations were identified as (1) the facility boundary, (2) a grid network of receptors to establish the impact area and area where the maximum impact would occur, and 3) discrete receptors that were positioned at specific locations of concern.

Discrete Cartesian receptors were used to evaluate the locations of the maximally exposed residential, sensitive, and off-site workplace receptors. A series of receptors were placed along the residences to the south and northeast of the Project site. Receptors were located at the three nearest schools: Ranchito Avenue Elementary approximately 675 meters to the northeast, Panorama High School approximately 750 meters to the north, and Hazeltine Elementary approximately 850 meters to the south. Four on-site buildings close to the emission sources were included in the modeling using best available dimensional data.

The exhaust stacks from each coating booth and each emergency generator were modeled as individual point sources. The release parameters for each source are shown in Table 3-12 and were obtained from similar equipment.

Table 3-12. Emission Sources and Release Parameters

Stack IDs	Description	Stack Height (meters)	Stack Diameter (meters)	Stack Velocity (meters/ second)	Stack Temp (degrees Kelvin)	UTM x (meters)	UTM y (meters)
COATPNT	Paint Booth - Coating Shop	16.764	0.762	12.42	294	367,179.89	3,786,257.10
GEN1	Gen 1 - Supply Chain	3.480	0.152	222.22	734	366,992.03	3,786,417.87
GEN2	Gen 2 - Weld Shop	3.912	0.229	171.05	803	367,001.32	3,786,292.33
GEN3	Gen 3 - Meter Yard	3.912	0.203	175.51	823	367,097.76	3,786,334.59
GEN4	Gen 4 - Parking	3.327	0.152	209.89	797	367,179.89	3,786,257.10

[5] The project is located in Los Angeles County. The population used for the analysis was 9,862,049 per the SCAQMD Modeling Guidance for AERMOD (SCAQMD 2016b).

Table 3-12. Emission Sources and Release Parameters

Stack IDs	Description	Stack Height (meters)	Stack Diameter (meters)	Stack Velocity (meters/ second)	Stack Temp (degrees Kelvin)	UTM x (meters)	UTM y (meters)
Stack IDs	**Description**	**Plume Height (meters)**	**Plume Width (meters)**	**Release Height (meters)**	**Configuration Type**		
SLINE1	Truck Traffic	5.1	9.0	2.55	Separated 2W		
SLINE2	Forklifts	3.4	8.0	1.70	Separated 2W		

Source: Appendix A.

Health Risk Assessment

The HRA followed the SCAQMD Tier-4 techniques, which are based on the Office of Environmental Health Hazard Assessment (OEHHA) Tier-1 techniques, to calculate the health risk impacts at all receptors including the nearby residential, sensitive. The health risk calculations were performed using the HARP2 Air Dispersion and Risk Tool (version 19044). The X/Q values that were determined for each source using AERMOD were imported into HARP2 and used in conjunction with hourly and annual emissions to determine the ground level concentrations for each pollutant. The ground level concentrations were used to estimate the long-term cancer health risk to an individual, and the non-cancer chronic and acute health indices.

Maximum Individual Cancer Risk (MICR) is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations. Sensitive receptors such as schools, hospitals, convalescent homes, and day-care centers are evaluated the same as residences.

Per SCAQMD (2015b) guidance, the exposure pathways used to estimate the MICR for residential/sensitive receptors are listed in Table 3-13. Any exposure pathways not explicitly shown in Table 3-13, (e.g., drinking water consumption) were not included in the HRA (Appendix A).

Table 3-13. Exposure Pathways

Exposure Pathway	Residential/Sensitive	Off-Site Workplace
Inhalation	Yes	Yes
Homegrown Produce	Yes	No
Dermal	Yes	Yes
Soil Ingestion	Yes	Yes
Mother's Milk	Yes	No

Note: See Appendix A.

Per SCAQMD (2015b) guidelines, the MICR estimates assumed a deposition velocity of 0.02 meter per second and a warm climate for the dermal pathway. Residential/sensitive estimates were calculated using CARB's Risk Management Policy (RMP), "RMP Using the Derived Method." The "RMP Using the Derived Method" uses high end breathing rates (95th percentile) for children from the third trimester through age 2, and 80th percentile breathing rates for all other ages for residential exposures (OEHHA 2015).

Some TACs increase non-cancer health risk due to long-term (chronic) exposures. The Chronic Hazard Index (HIC) is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. The HIC estimates used the "OEHHA Derived" calculation method (OEHHA 2015).

Some TACs increase non-cancer health risk due to short-term (acute) exposures. The Acute Hazard Index is the sum of the individual substance acute hazard indices for all TACs affecting the same target organ system. Acute risk is calculated from a 1-hour exposure using the "OEHHA Derived" calculation method (OEHHA 2015).

Cancer burden is the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million (1.0×10^{-6}) based on a 70-year exposure to TACs. The cancer burden is determined for the population located within the zone of impact, defined as the area within the one in one million cancer risk isopleth for a 70-year exposure. HARP2 is able to generate an isopleth, a line of a constant value, showing the area exposed to a cancer risk above one in one million.

Results

The HARP2 output reports for all results presented in this section can be found in Appendix A.

The results of the AERMOD/HARP2 HRA are summarized in Table 3-14. The following CEQA Significance Thresholds were used as the basis for determining impacts (SCAQMD 2015a):

- Maximum Incremental Cancer Risk ≥ 10 in 1 million
- Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million)
- Chronic & Acute Hazard Index ≥ 1.0 (project increment)

Table 3-14 shows that at all receptor types the predicted health risks are less than the SCAQMD Significance Thresholds (SCAQMD 2015b).

Table 3-14. Health Risk Results

Impact Parameter	Receptor Type	Health Risk Impact *(dimensionless)*	SCAQMD Significance Threshold *(dimensionless)*	Significant *(Yes/No)*
MICR	Resident	6.55 in a million	10 in a million	No
	Sensitive	1.35 in a million	10 in a million	No
HIC	Resident	0.00176	1	No
	Sensitive	0.000368	1	No
Acute Hazard Index	Resident	0.000391	1	No
	Sensitive	0.00004	1	No
Cancer Burden		0.0243	0.5	No

Sources: SCAQMD 2015a, 2015b; Appendix A.

Table 3-14 shows that the predicted health risks are less than the SCAQMD Significance Thresholds (SCAQMD 2015b). Therefore, impacts to sensitive receptors would be less than significant.

d) Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-Than-Significant Impact. Construction of the Project would result in emissions from diesel equipment, gasoline, and asphalt paving material fumes. Odors from these sources would be localized and generally confined to the Project site. Construction of the Project would use typical construction techniques in compliance with SCAQMD rules. Odors would be highest near the source and would quickly dissipate off site. Any odors associated with construction activities would be temporary and would cease upon completion of construction. As such, Project construction would not cause other emissions (such as an odor nuisance), and impacts would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding operations (SCAQMD 1993). The Project would not result in the implementation of any such land use. The Project would include the operation of a spray booth. While architectural coatings can produce odors, Project spraying activities would be contained within the spray booth and would not cause an odor nuisance. Therefore, Project operations would result in a less-than-significant odor impact.

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3.4 Biological Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. The Project site is located within an urban setting in the Van Nuys area of the City of Los Angeles. A vacant dirt lot with parking areas and overhead lighting structures, pockets of ruderal vegetation, and a few stands of trees occur within the Project site.

According to the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), four special-status wildlife species have been identified within a 2-mile radius of the Project site: silver-haired bat (*Lasionycteris noctivagans*; Western Bat Working Group: Medium Priority), hoary bat (*Lasiurus cinereus*; Western Bat Working Group: Medium Priority), Blainville's horned lizard (*Phrynosoma blainvillii*; CDFW Species of Special Concern), and Crotch bumble bee (*Bombus crotchii*; CDFW Special Animal species) (CDFW 2018). None of these species are state or federally listed, nor are there any documented occurrences of special-status species within the Project site itself (CDFW 2018). Additionally, the occurrence for Crotch bumble bee and Blainville's horned lizard are historic dating back to 1936 and 1947, respectively. The silver-haired bat requires a water source and roosts within hollow trees, beneath exfoliating bark, and also uses abandoned woodpecker holes. The hoary bat is also dependent on water and roosts in dense foliage of medium to large trees, primarily feeding on moths. Although these bat species may occasionally forage within the general Project area, they are dependent on a reliable water source for roosting. The closest suitable water source is approximately 2 miles northeast and 2.5 miles southwest of the Project site. Thus, these bat species are unlikely to roost in the scattered trees currently present throughout the Project site. Although the Blainville's horned lizard is known to occur within a wide variety of habitats, this species typically prefers habitats with sandy soils and shrubs to provide cover, which are not present within the Project site. Additionally, the soils are too compacted to be suitable for this species with requires loose soils for burrowing. The Crotch bumble bee is dependent on host plants from the genera *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum*. Should plants from these genera occur on site, they would be found in limited numbers, which would be less inviting taking into account the overall disturbances on site and within the surrounding areas. Thus, the Crotch bumble bee is unlikely to occur within the Project site.

No special-status plants are anticipated to occur within the Project site. The Project site is disturbed and subject to routine disturbances associated with disking, mowing, and other vegetation removal activities. There are also no documented occurrences of special-status plant species within a 2-mile radius of the Project site (CDFW 2018). The CNDDB occurrence report is included as Appendix B.

Based on the developed nature of the surrounding area, wildlife species that could potentially occur on site include common species typically found in urbanized settings, such as house sparrow (*Passer domesticus*), house finch (*Haemorhous mexicanus*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), and western fence lizard (*Sceloporus occidentalis*). Given the existing disturbed nature of the Project site and surrounding area, special-

status species identified as candidate, sensitive, or state- and/or federally listed wildlife or plant species are unlikely to occur on site or within the Project vicinity. Additionally, the Project site is surrounded by predominantly light industrial and commercial development on all sides. Therefore, impacts to candidate, sensitive, or special-status species as identified in local or regional plans, policies, or regulations or by the CDFW or the USFWS would be considered less than significant**,** and no mitigation is required.

A few mature ornamental landscape trees occur within the Project site, including Canary Island pine (*Pinus canariensis*), shamel ash (*Fraxinus uhdei*), redbox (*Eucalyptus polyanthemos*), sweetgum (*Liquidambar styraciflua*), carrotwood (*Cupaniopsis anacardioides*), California sycamore (*Platanus racemosa*). The majority of the trees are landscaped ornamental trees, and only one of these trees (a California sycamore tree) has been identified as a native species. All trees are proposed to be removed, with the exception of four trees in the southwest corner of the Project site. These trees could potentially provide nesting opportunities for bird species protected under the Migratory Bird Treaty Act of 1918 (16 USC 703–712) and California Fish and Game Code Sections 3503, 3503.5, and 3513. Birds in the area are likely to be susceptible to human presence and loud noise from the frequency of trains passing through the area. Thus, operation of the proposed Project would not produce significant noise or human activity such that birds or raptors would be significantly affected. Nevertheless, impacts to nesting bird and raptor species would be considered potentially significant if implementation of the proposed Project would require removal or substantial trimming of healthy mature trees with active nests during the bird nesting season. Thus, Mitigation Measure MM-BIO-1 is set forth to ensure that nesting birds would not be impacted by the proposed Project activities; and thus, impacts would be less than significant with mitigation incorporated.

MM-BIO-1 **Nesting Bird Avoidance:** If Project construction occurs during the migratory bird nesting season (typically February 15 through August 31), a pre-construction avian nesting bird survey of the Project site and contiguous habitat area within 300 feet of the site for protected native birds (within 500 feet for raptors) shall be performed by a qualified biologist 72 hours prior to construction in accordance with the Migratory Bird Treaty Act (16 USC 703–712) and California Fish and Game Code Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate no disturbance buffer, which will be determined by the biologist based on the biology of the species (typically 300 feet for passerines and 500 feet for raptor and special-status species). The nest area shall be avoided until the nest is vacated and/or the juveniles have fledged, as determined by a qualified biologist. The nest area shall be demarcated in the field with flagging and stakes or construction fencing. A qualified biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts to active nests occur.

b) Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The Project site is a vacant lot and is dominated by ruderal, non-native grasses and forbs, with very minimal native vegetation and no native vegetation communities occurring. Although the site supports one native California sycamore tree within the far eastern portion of the site, this tree is isolated and within a disturbed area; and therefore, does not constitute as a natural community in itself. All of the other trees within the Project site are ornamental trees, which were most likely planted on site. No riparian vegetation or evidence of water is prevalent within the Project site. Additionally, the Project site is surrounded by light industrial and commercial development, in which adjacent drainages are well-defined, concrete-lined channels, which do not support riparian habitat. As such, no riparian or other sensitive natural vegetation communities occur within the Project site and adjacent areas, and the proposed Project would result in no impact to riparian habitats and/or other sensitive natural communities.

c) Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. As discussed under item 3.4(b) above, the Project site does not contain any water courses or riparian areas. The eastern portion of the Project site once contained an abandoned residential dwelling, bunny house, construction equipment, and construction material storage areas for the bioscience laboratory facility, all of which was removed in 2013 prior to LADWP purchasing the property. The site is surrounded by urban development dominated by light industrial and commercial uses. The closest water feature to the Project site is the Pacoima Wash, which is located approximately 450 feet southwest of the Project site and immediately west of Van Nuys Boulevard, south of Covello Street. The Tujunga Wash is also located approximately 0.75 mile east of the Project site. The portion of Pacoima Wash west of Van Nuys Boulevard is an open-air channel, which flows underground through a storm drain at Van Nuys Boulevard to eventually join the Tujunga Wash further to the south. Both the Pacoima Wash and the Tujunga Wash are well-defined, concrete-lined flood control channels that only contain water during select times of the year, and which generally flow from a north to south direction through an urbanized setting. Furthermore, these channels would not be affected by the proposed Project activities. As such, there are no federally or state protected wetlands or other jurisdictional waters on the Project site or in the vicinity that could be affected by implementation of the proposed Project, and no impact would occur.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. There are no wetlands, ponding, or flowing waters within the proposed Project site. The Pacoima Wash and Tujunga Wash are the closest channels, which may support flowing water during high rain events, and do not support fish. Therefore, the proposed Project would have no potential to affect the movement of migratory fish. The Project site is located in a heavily urbanized area of the City. While it is highly unlikely that any wildlife species would use the Project area as a wildlife corridor, there are existing linear features in the surrounding area, such as the rail line to the north or Tujunga Wash (a concrete channelized storm drain) to the east, that could theoretically be used as corridors. However, the rail line does not connect to a wildlife area, and Tujunga Wash does not provide the most direct route to natural wildlife areas; thus, these areas, if used, are likely used less often than other more direct wildlife corridors. The proposed Project would not include any off-site improvements that would physically impede the potential use of such nearby linear features by wildlife. Therefore, no impacts associated with wildlife corridors would occur.

e) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant with Mitigation Incorporated. The City of Los Angeles Protected Tree Ordinance, as modified by Ordinance 177404, provides guidelines for the preservation of Southern California native tree species measuring 4 inches or more in cumulative diameter 4.5 feet above the ground level at the base of the tree (City of Los Angeles 2006). Trees protected under this ordinance include all oak trees indigenous to California (excluding the scrub oak (*Quercus dumosa*)), Southern California black walnut (*Juglans californica* var. *californica*), California sycamore, and California bay (*Umbellularia californica*).

Mature ornamental landscape trees documented within the eastern portion of the Project site include the following: Canary Island pine, shamel ash, redbox, sweetgum, carrotwood, and California sycamore. As per the LADWP Conceptual Design Report (LADWP 2015), California sycamore is the only native tree protected under the City of Los Angeles Protected Tree Ordinance that occurs within the proposed Project site. The single, isolated California sycamore tree is proposed for removal. As such, the proposed Project would result in direct impacts to a tree protected under the City of Los Angeles Protected Tree Ordinance. MM-BIO-2, which requires a tree inventory and obtaining a permit for tree removal, is set forth to minimize impacts to protected trees. Impacts associated with local policies or ordinances protecting biological resources would therefore be less than significant with mitigation incorporated.

MM-BIO-2 All trees should be inventoried within the Project site to determine which trees are "protected trees" pursuant to the City of Los Angeles Protected Tree Ordinance 177404. City of Los Angeles protected trees include all oak trees indigenous to California (excluding the scrub oak (*Quercus dumosa*)), Southern California black walnut (*Juglans californica* var. *californica*), California sycamore (*Platanus racemosa*), and California bay (*Umbellularia californica*). City of Los Angeles protected trees shall not be removed or relocated without having applied for and obtained a permit from the Board of Public Works, its designated officer, or employee pursuant to City of Los Angeles Article 6 (Preservation of Protected Trees) Section 46.02. The application for a permit shall, at a minimum, indicate the following, consistent with Section 46.02, unless otherwise exempted:

1. The location of each protected tree by number on a plot plan;
2. Identification of each protected tree proposed to be retained, relocated, or removed;
3. If grading is proposed that may affect a protected tree, then a copy of the grading permit plan shall also be submitted with the application consistent with Division 70 of Article 1 of Chapter IX of the Tree Protection Ordinance.

Protected Tree Removal Permit. Prior to relocating or removing any City protected tree, including conducting any act that will cause a protected tree to die (i.e., damage to the root system or other part of the tree by fire, application of toxic substances, operation of equipment or machinery, or by changes to the natural grade of the land by excavation or filling the drip line around the trunk), the applicant shall obtain a Protected Tree Removal Permit from the Board of Public Works or its designated officer or employer, pursuant to City of Los Angeles Article 6 (Preservation of Protected Trees) Section 46.02.

All guidelines provided within the tree removal permit must be adhered to during Project activities. Consistent with the City's ordinance regarding protected tree relocation and replacement requirements, the permittee may be required to do one or more of the following:

1. Replace each protected tree approved for removal or relocation within the property with at least two trees of a protected variety as defined by the City (City of Los Angeles 2006). In accordance with Section 46.02(c)1, each replacement tree shall be at least a 15-gallon, or larger, specimen, measuring 1 inch or more in diameter 1 foot above the base, and be not less than 7 feet in height measured from the base. The size and number of replacement trees shall approximate the value of the tree to be replaced (City of Los Angeles 2006).

2. If replacement trees of the size and species removed or relocated are not available, the Board of Public Works, its authorized officer, or employee may permit protected trees of a lesser size or trees of a different species be planted as replacement trees. However, a greater number of trees may be required.

3. A protected tree may be moved to another location on the property provided that the environmental conditions of the new location are favorable to the survival of the tree and there is a reasonable probability of tree survivorship.

Tree Protection. Protected trees to remain on or within 20 feet of the proposed Project boundary shall be avoided during construction, by the following Best Management Practices, including, but not limited to the following:

1. Establish tree protection zones that include most or all of the root zone and are designed to protect the canopy of each tree to remain on site;

2. Install tree protection fencing, as needed to buffer and avoid protected trees from construction activities; and

3. Perform tree pruning and/or surgery, as needed to enhance the health and structure of remaining protected trees.

f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project site is not located within any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved regional, or state habitat conservation plan areas. The County of Los Angeles has established Significant Ecological Areas (SEAs) to preserve a variety of biological communities for public education, research, and other non-disruptive outdoor uses. The proposed Project is not located in an SEA. The nearest SEA is the Verdugo Mountains SEA (incorporated City) approximately 3.3 miles northeast of the Project site (City of Los Angeles 2001). Thus, the proposed Project would not be subject to the provisions of any such conservation plans. Accordingly, implementation of the proposed Project would not conflict with any HCP, NCCP, or other approved local, regional, or state habitat conservation plans, and no impact would occur.

References

16 USC 703–712. Migratory Bird Treaty Act, as amended.

California Fish and Game Code, Sections 3500–3616. Division 4: Birds and Mammals, Part 2: Birds, Chapter 1: General Provisions.

CDFW (California Department of Fish and Wildlife). 2018. List of California Natural Diversity Database (CNDDB) species for nine quads (centered on Van Nuys Quad). Quick Viewer. Accessed January 2019. http://dfg.ca.gov/biogeodata/cnddb/.

City of Los Angeles. 2001. "Conservation Element." In *City of Los Angeles General Plan.* Accessed on January 2017. http://planning.lacity.org/cwd/gnlpln/consvelt.pdf.

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LADWP (Los Angeles Department of Water and Power). 2015. *Mid Valley Water Facility Conceptual Design Report.* Revision D. Task Order ESC-33. Prepared by CDM Smith. August 28, 2015.

3.5 Cultural Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

A cultural resources report was prepared for the Project to describe potential effects that could occur to cultural, archaeological, historical, and paleontological resources as a result of the proposed Project. The report is included in this MND as Appendix C. Preparation of the report involved conducting archival research and contacting culturally affiliated groups. The area that was evaluated for the presence of archaeological resources included the entirety of the Project site and a 1-mile buffer surrounding the Project site.

a) Would the Project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Less-Than-Significant Impact. The records search conducted for the Project determined that while no previously recorded archaeological sites were recorded within the boundaries of the Project area, a total of three

historic structures and one historic district had been previously recorded within the 1-mile buffer surrounding the current Project area.

The most significant previously recorded resource within the current Project's record search results is the Panorama City Historic District. This resource includes 26 residential blocks that were recorded as significant for their association with broad patterns of suburban development during the late 1940s and early 1950s. While this resource is considerable in size and relative complexity, the district is located along the very northern edge of the record search 1-mile buffer area, well outside and north of the current Project area boundaries and would not be affected by the development or operation of the Project. Similarly, the other three historic structures previously recorded within the 1-mile record search buffer area are all far enough away from the current Project area to remain undisturbed by the Project. Therefore, impacts to historic resources would be less than significant.

b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant with Mitigation Incorporated. No archaeological resources have been recorded within the Project area, and only four historic resources have been recorded within the surrounding 1-mile records search buffer. All of these previously recorded resources are well outside of the current Project's boundaries. Additionally, a narrow portion of the current Project area was studied previously with negative results for cultural resources.

It is unlikely that any significant prehistoric Native American resources are present. The Native American Heritage Commission conducted a search of their Sacred Lands file. This search did not indicate the presence of any Native American cultural sites. Nonetheless, despite largely negative findings there is always a possibility to encounter previously unknown buried cultural deposits. If such a deposit or feature were to be encountered, a City-approved archaeological evaluation program would be required to be developed and implemented in order to assess the significance of the resource (as defined by CEQA and the City of Los Angeles). Upon implementation of MM-CUL-1, impacts would be less than significant.

MM-CUL-1 In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under the California Environmental Quality Act, additional work such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

c) Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Less-Than-Significant Impact. No human remains are expected to be disturbed within the Project site during construction. In the event that remains are unearthed during construction, State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 provide guidance with regard to the accidental discovery of human remains. Should remains be unearthed during construction, LADWP would be subject to these requirements by law, reducing any potential impact to less than significant.

3.6 Energy

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

a) Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Less-Than-Significant Impact. The service providers, supply sources, and estimated consumption for electricity, natural gas, and petroleum is discussed below.

Energy Overview

Electricity

LADWP is the utility provider for the City. LADWP provides electric services to 1.5 million customers, located in the City and in the Owens Valley. According to LADWP, customers consumed approximately 24 billion kilowatt-hours (kWh) of electricity in 2016 (CEC 2018). LADWP receives electric power from a variety of sources. According to the LADWP Briefing Book 2017–2018, 29% of LADWP's power came from renewable energy sources in 2016, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources (LADWP 2017). Due to the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita has remained stable for more than 30 years, while the national average has steadily increased (CEC 2015).

Natural Gas

Southern California Gas Company (SoCalGas) serves the City (including the proposed Project area). SoCalGas serves 21.6 million customers in a 20,000-square-mile service area that includes over 500 communities (SoCalGas 2018). In 2016 (the most recent year for which data is available), SoCalGas delivered 5,123 million therms of natural gas, with the majority going to residential uses. Demand for natural gas can vary depending on factors such as weather, price of electricity, the health of the economy, environmental regulations, energy-efficiency programs, and the availability of alternative renewable energy sources. Natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand.

Petroleum

Transportation accounts for the majority of California's total energy consumption (CEC 2018). According to the EIA, California used approximately 672 million barrels of petroleum in 2016 (EIA 2018). This equates to a daily use of approximately 1.8 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 77 million gallons of petroleum per day, adding up to an annual consumption of 28 billion gallons of petroleum. However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce vehicle miles traveled (VMT).

Construction

Electricity

Temporary electric power for as-necessary lighting and electronic equipment would be provided by LADWP. The amount of electricity used during construction would be minimal, because typical demand would stem from electrically powered hand tools. The electricity used for construction activities would be temporary and minimal; therefore, Project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity. Impacts would be less than significant.

Natural Gas

Natural gas is not anticipated to be required during construction of the Project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection "Petroleum." Any minor amounts of natural gas that may be consumed as a result of Project construction would be temporary and negligible and would not have an adverse effect; therefore, Project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas. Impacts would be less than significant.

Petroleum

Heavy-duty construction equipment associated with construction activities for construction would rely on diesel fuel, as would vendor trucks involved in delivery of materials to the Project site. Construction workers would travel to and from the Project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel in gasoline-powered light-duty vehicles.

Heavy-duty construction equipment of various types would be used during each phase of Project construction. Appendix A lists the assumed equipment usage for each phase of construction. The Project's construction equipment is estimated to operate a total combined 101,328 hours.

Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO_2) emissions from each construction phase to gallons using the conversion factors for CO2 to gallons of gasoline or diesel. Construction is estimated to occur in late 2020 through early 2023 based on the construction phasing schedule.

The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon (The Climate Registry 2018). The estimated diesel fuel usage from construction equipment is shown in Table 3-15. Worker vehicles are assumed to be gasoline and vendor/hauling vehicles are assumed to be diesel. Calculations for total worker, vendor, and haul truck fuel consumption are provided in Tables 3-16, 3-17, and 3-18.

Table 3-15. Construction Equipment Diesel Demand (Off-Road Equipment)

Phase	Pieces of Equipment	Equipment CO_2 (MT)	kg/CO_2/Gallon	Gallons
Site Preparation	3,438.02	35.10	10.21	
Grading	33,540.88	342.45	10.21	33,540.88
Perimeter Walls Construction	4,401.19	44.94	10.21	4,401.19
Paving & Site Infrastructure	1,470.87	15.02	10.21	1,470.87
Street Improvement of Hazeltine Avenue	22,242.49	227.10	10.21	22,242.49
Architectural Coating	525.15	5.36	10.21	525.15
Trenching & Underground Utilities	941.41	9.61	10.21	941.41
Office Building & Staff Parking	24,550.82	250.66	10.21	24,550.82
Water Distribution Shop and Maintenance Building	24,204.23	247.13	10.21	24,204.23
Department Fleet Vehicles Parking	26,543.43	271.01	10.21	26,543.43
Supply Chain Services Warehouse	23,207.12	236.94	10.21	23,207.12
Fleet Maintenance Building and CNG Dispensing Area	33,766.15	344.75	10.21	33,766.15
			Total	**198,831.77**

Sources: Pieces of equipment and equipment CO_2 (Appendix A); kg/CO_2/Gallon (The Climate Registry 2018).
Notes: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram.

Table 3-16. Construction Worker Gasoline Demand

Phase	Trips	Vehicle MT CO_2	kg/CO_2/ Gallon	Gallons
Site Preparation	378	1.93	8.78	219.86
Grading	2,080	10.34	8.78	1,178.18
Perimeter Walls Construction	132	0.65	8.78	74.34
Paving & Site Infrastructure	240	1.19	8.78	135.16
Street Improvement of Hazeltine Avenue	1,728	8.19	8.78	932.26
Architectural Coating	1,848	8.82	8.78	1,004.15
Trenching & Underground Utilities	220	1.09	8.78	123.90
Office Building & Staff Parking	3,510	17.02	8.78	1,938.58
Water Distribution Shop and Maintenance Building	11,424	55.24	8.78	6,291.06
Department Fleet Vehicles Parking	17,748	85.71	8.78	9,762.16
Supply Chain Services Warehouse	7,308	35.29	8.78	4,019.72
Fleet Maintenance Building and CNG Dispensing Area	3,808	18.41	8.78	2,097.03
			Total	**27,776.38**

Sources: Trips and vehicle CO_2 (Appendix A); kg/CO_2/Gallon (The Climate Registry 2018).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

Table 3-17. Construction Vendor Diesel Demand

Phase	Trips	Vehicle MT CO_2	kg/CO_2/Gallon	Gallons
Site Preparation	42	0.52	10.21	51.10
Grading	260	3.21	10.21	314.29
Perimeter Walls Construction	88	1.08	10.21	106.23
Paving & Site Infrastructure	60	0.74	10.21	72.43
Street Improvement of Hazeltine Avenue	216	2.62	10.21	256.88
Architectural Coating	924	11.29	10.21	1,105.59
Trenching & Underground Utilities	44	0.54	10.21	53.11
Office Building & Staff Parking	2,340	28.70	10.21	2,811.08
Water Distribution Shop and Maintenance Building	5,712	70.01	10.21	6,856.97
Department Fleet Vehicles Parking	1,044	12.79	10.21	1,252.91
Supply Chain Services Warehouse	4,176	51.17	10.21	5,011.65
Fleet Maintenance Building and CNG Dispensing Area	2,380	29.17	10.21	2,857.08
			Total	**20,749.31**

Sources: Trips and vehicle CO_2 (Appendix A); kg/CO_2/Gallon (The Climate Registry 2018).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

Table 3-18. Construction Haul Truck Diesel Demand

Phase	Trips	Vehicle MT CO_2	kg/CO_2/Gallon	Gallons
Site Preparation	0	0.00	10.21	0.00
Grading	11,118	424.60	10.21	41,586.20
Perimeter Walls Construction	0	0.00	10.21	0.00
Paving & Site Infrastructure	0	0.00	10.21	0.00
Street Improvement of Hazeltine Avenue	4,000	149.43	10.21	14,635.29
Architectural Coating	0	0.00	10.21	0.00
Trenching & Underground Utilities	0	0.00	10.21	0.00
Office Building & Staff Parking	0	0.00	10.21	0.00
Water Distribution Shop and Maintenance Building	0	0.00	10.21	0.00
Department Fleet Vehicles Parking	0	0.00	10.21	0.00
Supply Chain Services Warehouse	0	0.00	10.21	0.00
Fleet Maintenance Building and CNG Dispensing Area	0	0.00	10.21	0.00
			Total	**56,221.49**

Sources: Trips and vehicle CO_2 (Appendix A); kg/CO_2/Gallon (The Climate Registry 2018).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

In summary, construction of the proposed Project is conservatively anticipated to consume 27,776 gallons of gasoline and 275,803 gallons of diesel over approximately 27 months. By comparison, California's consumption of petroleum is approximately 74.8 million gallons per day. Based on these assumptions, approximately 61.4 billion gallons of petroleum would be consumed in California over the course of the construction period (EIA 2017). Within Los Angeles County, approximately 11.2 billion gallons of petroleum (gasoline and diesel) would be consumed over the course of the construction period (CARB 2018). Overall, because petroleum use during construction would be temporary and relatively minimal, and would not be wasteful or inefficient, impacts would be less than significant.

Operational

Electricity

Operation of the proposed Project upon buildout would require electricity for multiple purposes, including cooling, lighting, appliances, and various equipment. Additionally, the supply, conveyance, treatment, and distribution of water and wastewater would indirectly result in electricity usage. Electricity consumption associated with Project operation is based on the CalEEMod outputs presented in Appendix A.

CalEEMod default values for energy consumption for each land use were applied for the Project analysis. The energy use from non-residential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Energy use in buildings (both natural gas and electricity) is divided by the program into

end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the HVAC system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous "plug-in" uses).

The proposed Project would be built in accordance with the current Title 24 standards at the time of construction and CALGreen standards. According to these estimations, the Project would consume approximately 4,128,000 kWh per year during operation. For comparison, in 2017 the total residential and non-residential electricity demand in Los Angeles County was 67,569,242,472 kWh (CEC 2018). Therefore, due to the limited amount of electricity use for the proposed Project compared to Los Angeles County consumption, and the inherent increase in efficiency of building code regulations, the proposed Project would not result in a wasteful use of energy. Impacts related to operational electricity use would be less than significant.

Natural Gas

Project operation would require natural gas for various purposes, including water heating and natural gas appliances. Natural gas consumption associated with operation is based on the CalEEMod outputs Appendix A. The proposed Project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Prior to Project approval, the applicant would ensure that the proposed Project would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. According to these estimations, the proposed Project would consume approximately 3,563,360 kilo-British Thermal Units per year. For comparison, in 2017 the non-residential natural gas use within Los Angeles County was 295,601,223,219 kilo-British Thermal Units (CEC 2018). Therefore, due to the limited amount of natural gas use for the proposed Project compared to Los Angeles County consumption, and the inherent increase in efficiency of building code regulations, the proposed Project would not result in a wasteful use of energy. Impacts related to operational natural gas use would be less than significant.

Petroleum

During operations, the majority of fuel consumption resulting from the proposed Project would involve emergency diesel generators and the use of motor vehicles (i.e., employees) traveling to and from the Project site.

Diesel fuel consumption associated with the emergency diesel generators would be 9,598 gallons per year using the conversion factor for CO_2 to gallons of diesel.

Petroleum fuel consumption associated with motor vehicles traveling to and from the Project site is a function of the VMT as a result of Project operation. As shown in Appendix A (CalEEMod outputs and as discussed in Section 3.3, Air Quality, and Section 3.8, Greenhouse Gas Emissions), the annual VMT attributable to the proposed Project is expected to be 4,860,376 VMT. Similar to the construction worker and vendor trips, fuel consumption from operational trips are estimated by converting the total CO_2 emissions from operation of the proposed Project to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Based on the

annual fleet mix provided in CalEEMod, 92.5% of the fleet range from light-duty to medium-duty vehicles and motorcycles are assumed to run on gasoline. The remaining 7.5% of vehicles represent medium-heavy duty to heavy-duty vehicles and buses and are assumed to run on diesel.

Calculations for annual mobile source fuel consumption are provided in Tables 3-19 (gasoline) and 3-20 (diesel).

Table 3-19. Annual Mobile Source Gasoline Demand

	Vehicle MT CO_2	kg/CO_2/Gallon	Gallons
Operation	1,685.76	8.78	192,000.27

Sources: Trips and vehicle CO_2 (Appendix A); kg/CO_2/Gallon (The Climate Registry 2018).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram

Table 3-20. Annual Mobile Source Diesel Demand

	Vehicle MT CO_2	kg/CO_2/Gallon	Gallons
Operation	137.05	10.21	13,423.28

Sources: Trips and vehicle CO_2 (Appendix A); kg/CO_2/Gallon (The Climate Registry 2018).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram

Over the lifetime of the proposed Project, the fuel efficiency of the vehicles being used by the employees is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the Project site during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and zero-emissions vehicles in California (CARB 2017). Additionally, in response to Senate Bill 375, CARB adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8% by 2020, and 13% by 2035 for light-duty passenger vehicles in the planning area for the Southern California Association of Governments. The Southern California Association of Governments' *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* quantified an 8% reduction of petroleum use by 2020 and an 18% reduction by 2030 (SCAG 2016). As such, operation of the Project is expected to use decreasing amounts of petroleum over time due to advances in fuel economy.

In summary, although natural gas and electricity usage would increase due to the implementation of the Project, the Project's energy efficiency would be in accordance with state Title 24 standards. Although the Project would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy and potential reduction in VMT over time. Given these considerations, petroleum consumption associated with the proposed Project would not be considered inefficient or wasteful and would result in a less than significant impact.

b) Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less-Than-Significant Impact. The Project would follow applicable energy standards and regulations during the construction phases. The proposed Project would be subject to and would comply with, at a minimum, the California Building Code Title 24 (24 CCR, Part 6) applicable at the time of development. Additionally, the Project would consolidate and replace the existing LADWP Water System divisions with modern facilities with increased energy efficiency, due to more stringent energy conservation regulations. Based on these considerations, proposed Project would not conflict with existing energy standards and regulations; therefore, impacts during construction and operation of the proposed Project would be **less than significant**.

References

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CEC. 2018. "Electricity Consumption by Entity." Accessed July 2018. http://www.ecdms.energy.ca.gov/elecbyutil.aspx.

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EIA. 2018. "California State Profile and Energy Estimates – Table F15: Total Petroleum Consumption Estimates, 2016." Accessed February 2019. http://www.eia.gov/state/seds/data.cfm?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA.

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SCAG. 2016. *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability, and High Quality of Life.* Adopted April 2016. http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

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The Climate Registry. 2018.

3.7 Geology and Soils

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Project site is not located within an Earthquake Fault Zone, formerly known as an Alquist–Priolo Earthquake Fault Zone, and is not traversed by any known active faults. The nearest active fault to the Project site, as identified by the City of Los Angeles, is the Northridge fault, located approximately 3.4 miles from the Project site (City of Los Angeles 1996). Fault rupture is not expected to occur on the Project site. No impact would occur.

ii) Strong seismic ground shaking?

Less-Than-Significant Impact. As with all areas in Southern California, the Project site is located in a seismically active region, within which are numerous known earthquake faults. As with most areas throughout Southern California, the site could be exposed to strong seismic ground shaking. As stated in Section 3.7(a)(i), the Northridge fault is approximately 3.4 miles from the Project. According to the City of Los Angeles General Plan Safety Element, the Northridge fault is a blind thrust fault, of which have increasingly become the focus of study and concern. The concept of blind thrust faults has been recognized only recently by seismologists. The effect of such faults may dominate the geology of the Los Angeles basin in a way not previously known (City of Los Angeles 1996). As a response, the City adopted a series policies within the Los Angeles City Building Code, which required retrofitting of certain existing structures (e.g., foundation anchoring of hillside dwellings) and for new construction, as well as an ordinance which required evaluation of structures by a structural engineer during the construction process (City of Los Angeles 1996). Project structures would be designed and constructed in accordance with the latest version of the California Building Code and the City of Los Angeles Building Code relative to seismic criteria, and neither people nor structures would be exposed to potential substantial adverse effects. Direct and indirect impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-Than-Significant Impact. The Project site has not been identified as being potentially susceptible to liquefaction (City of Los Angeles 2017). As discussed in Section 3.7(a)(ii), the Project site has the potential to be exposed to strong seismic ground shaking, and in some cases, seismic-related ground failure. However, Project structures would be designed and constructed in accordance with the latest version of the California Building Code and the City of Los Angeles Building Code

relative to seismic criteria, which provides a measure of safety for people and structures exposed to potential substantial adverse effects involving seismic-related ground shaking. Direct and indirect impacts would be less than significant.

iv) Landslides?

No Impact. The Project site and surrounding area are flat, and the site has not been mapped as a landslide hazards area (City of Los Angeles 2017). Therefore, people or structures on the site would not be exposed to landslide hazards. No impact would occur.

b) Would the Project result in substantial soil erosion or the loss of topsoil?

Less-Than-Significant Impact. Construction of the Project would result in ground surface disruption during grading and excavation that could create the potential for erosion to occur. Because the Project would involve construction on an area greater than 1 acre, it would require compliance with the Storm Water Construction Activities General Permit, which requires the construction contractor to prepare and comply with an SWPPP. The SWPPP must include erosion control measures such as covering exposed soil stockpiles, protecting the perimeter of the construction site with sediment barriers, and protecting storm drain inlets.

Once operational, the Project site would be developed with water facility buildings, paved parking areas and drive aisles, and landscape areas. Collectively, these on-site areas would reduce the potential for soil erosion and topsoil loss. The structural and paved improvements would be impervious areas lacking any exposed soils. The landscape areas, although pervious, would contain various trees, shrubs, and groundcover that would help stabilize any surface soils and contain these soils to the Project site. As such, impacts associated with soil erosion and loss of topsoil would be less than significant.

c) Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less-Than-Significant Impact. The Project site is not located in an area identified for landslide or liquefaction hazards (City of Los Angeles 2017). The new water yard facilities that would be installed on the Project site wouldbe designed and constructed in accordance with the latest version of the California Building Code and the City of Los Angeles Building Code relative to seismic criteria. Compliance with the current regulations would ensure that Project structures are designed and built to current standards to minimize any potential impacts and hazards associated with unstable soils. This impact would be less than significant.

d) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less-Than-Significant Impact. As described above under Section 3.7(c), the California Building Code and the City of Los Angeles Building Code outline specific design, engineering, and development standards for structures proposed in areas with unstable soils. In the unlikely event that such soils are encountered on the Project site, compliance with these regulations would ensure that Project structures are designed and engineered to withstand on-site soil conditions. Direct and indirect impacts would therefore be less than significant.

e) Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project does not include installation of septic tanks or alternative wastewater disposal systems. During Project operation, the Project would connect to the City sewer system. As such, no impact would occur relative to the ability of on-site soils to support septic tanks or alternative wastewater disposal systems.

f) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. Paleontological resources include fossil plants and animals and other evidence of past life, such as trace fossils and tracks.

According to the Surface Soil and Soil Gas Sampling Report prepared for this Project (Appendix D), the Project site is mapped by the state as underlain by young alluvial fan deposits generated by the Pacoima and Tujunga Washes, which originate in the adjacent San Gabriel Mountains. However, approximately 2.5 feet to 7.5 feet of undocumented artificial fill was found to be overlaying the alluvial deposits of the Project site (Appendix D). Therefore, the possibility of a paleontological discovery cannot be discounted. Accordingly, destruction of paleontological resources or unique geologic features during site-disturbing activities associated with construction of the proposed Project is considered a potentially significant impact. Therefore, MM-GEO-1 is provided and would be implemented to ensure that potential impacts to paleontological resources or unique geologic features during construction activities are reduced to a less-than-significant level.

MM-GEO-1 In the event that paleontological resources (fossil remains) are exposed during construction activities for the Project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified paleontologist, as defined by the Society of Vertebrate Paleontology's 2010 guidelines, can assess the nature and importance of the find. Depending on the significance of the find, the paleontologist may record the find and allow work to continue or recommend salvage and recovery of the resource. All recommendations will be made in accordance with the Society of Vertebrate Paleontology's 2010 guidelines, and shall

be subject to review and approval by the City of Los Angeles. Work in the area of the find may only resume upon approval of a qualified paleontologist.

References

City of Los Angeles. 1996. City of Los Angeles General Plan Safety Element. Adopted November 26, 1996. https://planning.lacity.org/cwd/gnlpln/saftyelt.pdf.

City of Los Angeles. 2017. Zimas "Seismic Hazards." Web map application. Accessed January 10, 2019. http://zimas.lacity.org/.

3.8 Greenhouse Gas Emissions

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

The analysis in this section is partially based on the CalEEMod GHG emissions estimates provided in Appendix A and the stationary source emissions calculations in the May 2019 HRA prepared for this Project and included in Appendix A.

a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-Than-Significant Impact. GHGs are gases that absorb infrared radiation in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG

emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or metric tons (MT) of carbon dioxide equivalent (CO_2e)[6].

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project in the SCAQMD are significant. While the Project would result in emissions of GHGs during construction and operation, no guidance exists to indicate what level of GHG emissions would be considered substantial enough to result in a significant adverse impact on global climate change. However, it is generally believed that an individual project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory, as scientific uncertainty regarding the significance of a project's individual and cumulative effects on global climate change remains.

Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). This approach is consistent with that recommended by the California Natural Resources Agency (CNRA), which noted in its public notice for the proposed CEQA amendments that the evidence before it indicates that, in most cases, the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact (CNRA 2009a). Similarly, the CNRA's Final Statement of Reasons for Regulatory Action on the CEQA Amendments confirm that an EIR or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009b). Accordingly, further discussion of the Project's GHG emissions and their impact on global climate are addressed below.

Status of SCAQMD Thresholds. The SCAQMD has not adopted recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects. In October 2008, SCAQMD presented to the Governing Board the *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008). This document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO_2e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (see SCAQMD Resolution No. 08-35, December 5, 2008). The 10,000 MT CO_2e per-

[6] The CO_2 equivalent for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons of CO_2e = (metric tons of a GHG) × (GWP of the GHG). This analysis assumes the GWP of methane is 25 and the GWP of nitrous oxide is 298 consistent with default values in CalEEMod 2016.

year threshold was based upon the conclusion that the 10,000 MT CO_2e per-year threshold was consistent with achieving an emission capture rate of 90% of all new or modified stationary source projects, which in turn uses Executive Order S-3-05 as the basis for deriving the screening level.

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e per year), commercial projects (1,400 MT CO_2e per year), and mixed-use projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of Assembly Bill (AB) 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_2e per-service population for project-level analyses and 6.6 MT CO_2e per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

The lead agency has determined that the Project's GHG emissions will be compared to the industrial quantitative threshold of 10,000 MT CO_2e per year. The SCAQMD *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008) recommends that "construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies." Thus, the total construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions for comparison with the GHG significance threshold of 10,000 MT CO_2e per year. The determination of significance, therefore, is addressed in the operational emissions discussion following the estimated construction emissions.

Construction GHG Emissions. Construction of the Project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road hauling and vendor trucks, and worker vehicles. Construction of the proposed Project would begin in November 2020 and would be completed in January 2023.

CalEEMod Version 2016.3.2 was used to calculate the annual GHG emissions based on the construction scenario described in Section 2.3, Construction. The GHG emissions are expressed in units of MT CO_2e. On-site sources of GHG emissions include off-road equipment, and off-site sources include vendor trucks, haul trucks, and worker vehicles. Table 3-21 presents construction GHG emissions for the Project from on-site and off-site emissions sources.

Table 3-21. Estimated Annual Construction GHG Emissions – Unmitigated

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2020	176.39	0.04	0.00	177.30
2021	1,368.81	0.25	0.00	1,375.04
2022	1,440.35	0.25	0.00	1,446.58
2023	74.28	0.01	0.00	74.63
Total	**3,059.82**	**0.55**	**0.00**	**3,073.55**

Source: See Appendix A for complete results.
Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

As shown in Table 3-21, the estimated total GHG emissions during construction of the Project would be approximately 3,074 MT CO_2e. Estimated Project-generated construction emissions amortized over 30 years would be approximately 102 MT CO_2e per year. As with Project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the Project would be short term, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operational GHG Emissions. In general, operational GHG emissions are generated through mobile sources (motor vehicle trips to Project land uses); energy use (natural gas and electricity consumed by the Project); area

sources (consumer product use, architectural coatings, and landscape maintenance equipment); stationary sources, forklifts; and water treatment, distribution, and supply. GHG emissions associated with mobile, area, and energy sources associated with the Project were estimated using CalEEMod (Appendix A). Project buildout was assumed to occur in 2026.

Area and energy source emissions were estimated to be consistent with the analysis in Section 3.3, Air Quality. Default CalEEMod factors for indoor and outdoor water supply and solid waste were used to estimate GHG emissions for Project buildout.

Mobile source emissions were estimated using the assumptions described in Section 3.3, Air Quality. CalEEMod default data for temperature, variable start information, and emission factors were conservatively assumed for the model inputs. Project-related traffic was assumed to consist of a mixture of vehicles in accordance with the model outputs for traffic. Emission factors representing the vehicle mix and emissions for 2026 were used to represent the first full year of operation under the proposed Project.

CalEEMod was also used to calculate emissions associated with forklift operation. It was assumed that 10 forklifts would operate on site for 4 hours a day. Exterior forklifts would be powered by diesel and were assumed to operate at 89 horsepower.

The proposed Project would also include the following stationary sources:

- One paint spray booths that would be collocated in the southern portion of the site;
- A CNG fueling station that would be located in the southeastern portion of the site, with a dispenser located to the east of the internal roadway; and
- Four emergency generators that would be located in four different locations, specifically immediately north of the weld shop, in the Meter Yard, north of Supply Chain Services, and near the parking structure.

The HRA prepared for this Project calculated the GHG emissions associated with these stationary sources and forklifts.

The four Tier 2 diesel emergency generators would be permitted to operate up to 50 hours per year for maintenance and testing purposes under the statewide Airborne Toxics Control Measure regulation (17 CCR 93115).

Two scenarios were modeled to determine annual GHG emissions: maintenance and testing. The maintenance maximum fuel usage (i.e., input load factor) would vary depending on engine size and would range between 27% and 29% of maximum fuel consumption. The engine load factor was assumed to be 25%. Testing emissions were calculated assuming a 100% load factor. Maintenance and testing GHG emissions associated with all four emergency generators are included in Table 3-22.

Estimated operational GHG emissions from electricity usage, mobile sources, area sources, water consumption, wastewater treatment, and solid waste generation associated with the Project are shown in Table 3-22.

Table 3-22. Estimated Annual Operational GHG Emissions (2026) – Unmitigated

Emissions Source	CO_2	CH_4	N_2O	CO_2E
	Metric Tons per Year (Unmitigated)			
Area	0.02	<0.01	0.00	0.02
Energy	1,609.76	0.04	0.01	1,613.96
Mobile	1,820.80	0.08	0.00	1,822.81
Forklifts	87.73	0.03	0.00	88.44
Solid waste	65.81	3.89	0.00	163.05
Water supply and wastewater	359.51	2.23	0.05	431.55
Emergency generator maintenance and testing	-	-	-	98.00
			Combined total emissions	**4,217.83**
			Amortized construction emissions	*102.45*
			Operation + amortized construction total	**4,320.28**

Notes: Calculations provided in Appendix A. A dash (—) represents information that is not available.
GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

As shown in Table 3-22, the estimated annual operational and amortized construction GHG emissions would be 4,320 MT CO_2e per year. Mobile emissions would be the primary source of GHG emissions generated under the Project. The Project would not exceed the SCAQMD draft threshold for industrial projects of 10,000 MT CO_2e per year. Therefore, impacts would be less than significant.

b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-Than-Significant Impact. The Climate Change Scoping Plan, approved by CARB on December 12, 2008, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Moreover, the Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates from the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009b). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (hybrid, electric, and more fuel-efficient vehicles) and associated fuels, among others.

Regarding consistency with Senate Bill 32 (goal of reducing GHG emissions to 40% below 1990 levels by 2030) and Executive Order S-3-05 (goal of reducing GHG emissions to 80% below 1990 levels by 2050), there are no established protocols or thresholds of significance for that future-year analysis. However, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014). As discussed previously, the proposed Project would result in less-than-significant GHG emissions and would not conflict with the state's trajectory toward future GHG reductions. In addition, since the specific path to compliance for the state in regards to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the proposed Project would be speculative and cannot be identified at this time. With respect to future GHG targets under Senate Bill 32 and Executive Order S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet the reduction targets in 2030 and in 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets.

The City of Los Angeles has established a Climate Action Plan that establishes the goal of reducing City GHGs by to 35% below 1990 levels by 2030 (City of Los Angeles 2007). Notably, the Project would consolidate and replace the existing LADWP Water System divisions with modern facilities with increased energy efficiency, due to more stringent energy conservation regulations. Furthermore, by consolidating LADWP Water System divisions onto one site, and modernizing water facilities to respond to a significant natural disaster, the Project would not conflict with the Executive Order's near-term 2020 goal (as codified in AB 32), the long-term 2050 goal, or the City's Climate Action Plan.

Based on the preceding considerations, the Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Therefore, this cumulative impact would be less than significant.

References

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3.9 Hazards and Hazardous Materials

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

The analysis in this section is based on a *Surface Soil and Soil Gas Sampling Report* for the Project site, which is included as Appendix D.

a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction Impacts

Less Than Significant with Mitigation Incorporated. Construction of the Project would include activities involving some hazardous materials, including on-site fueling and minor servicing of construction equipment. However, construction activities would be short-term in nature, and the types of materials that would be involved are not considered acutely hazardous. Furthermore, the handling of these materials is subject to federal, state, and local health and safety requirements. However, in order to ensure that reasonably foreseeable and accident conditions are addressed and sufficiently responded to, MM-HAZ-1, as described in full below, is provided and would be implemented to ensure potential impacts during construction are reduced to a less-than-significant level.

Operations Impacts

Less-Than-Significant Impact. Long-term operation of the Project would involve the transport, use, and disposal of materials that could be potentially hazardous. Chemicals that are considered to be hazardous materials would be regulated at the federal and state level. Workers would be required to follow state and federal laws governing the handling, storage, and transport of these chemicals.

While several types of hazardous materials would be involved with operation of the proposed Project, compliance with the existing laws regulating these substances would ensure that they are handled properly and that spills are contained and addressed in a safe manner in the unlikely event that a spill were to occur. For these reasons, impacts related to the routine use, transport, and disposal of hazardous materials associated with operations would be less than significant.

MM-HAZ-1 A Site Mitigation Plan (SMP) shall be developed and implemented during all construction activities. The SMP would also include a hazardous substance management, handling, storage, disposal, and emergency response plan that establishes procedures for managing any hazardous substance releases on the Project site. Hazardous materials spill kits would be maintained on site to effectively manage and clean any small accidental spills. In addition, the SMP would include strategies for identification and management of contaminated soil, if encountered during Project development, and would outline Mitigation Measures if development activities result in an accidental release of contaminants. A Project-specific Health and Safety Plan shall be prepared in accordance with the Occupational Safety and Health Administration standards, included in the SMP, and implemented during all construction-related activities. Copies of the SMP and Health and Safety Plan shall be maintained on site during demolition, excavation, and construction of the Project. All workers on the Project site should be familiar with these documents.

b) Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction Impacts

Less Than Significant with Mitigation Incorporated. Construction of the Project would include activities involving some hazardous materials, including on-site fueling and minor servicing of construction equipment. However, construction activities would be short term in nature, and the types of materials that would be involved are not considered acutely hazardous. Furthermore, the handling of these materials is subject to federal, state, and local health and safety requirements. However, in order to ensure that reasonably foreseeable and accident conditions are addressed and sufficiently responded to, MM-HAZ-1 is provided and would be implemented to ensure potential impacts during construction are reduced to a less-than-significant level.

Operations Impacts

Less-Than-Significant Impact. As described under Section 3.9(a), several hazardous materials would be used during operation of the Project. In the unlikely event that these materials were to be accidentally released to the environment during Project operation, they could pose a hazard to the public and to the environment. However, the substances would be handled in accordance with state and federal laws governing the storage, use, transport, and disposal of such materials. Any release of hazardous materials would be handled in a manner that would not pose a significant hazard to the public or the environment. As such, impacts related to an accidental release of hazardous materials into the environment are less than significant.

c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The nearest schools to the Project site are Panorama High School, located 0.5 mile northwest from the Project site; Fulton Middle School, located 0.8 mile west of the Project site; Pinecrest School, located 0.4 miles south of the Project site, Hazeltine Avenue Elementary School, located 0.5 mile south of the Project site; Ranchito Elementary School, located 0.4 mile northeast of the Project site; and Burton Street Elementary School, located 0.6 mile north of the Project site. As such, the Project would not be located within a quarter mile of an existing or proposed school. No impact would occur.

d) Would the Project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant with Mitigation Incorporated. Government Code Section 65962.5 applies to facilities that may be subject to the Resource Conservation and Recovery Act Corrective Action program involving the cleanup of improperly managed hazardous wastes. The Project site is not contained on any lists compiled pursuant to Section 65962.5 or on the California Department of Toxic Substances Control database (EnviroStor) for contaminated sites (DTSC 2017a, 2017b).

Additionally, according to the Surface Soil and Soil Gas Sampling Report prepared for the Project (Appendix D), the following conclusions were made based on the results of the previously prepared Phase I Environmental Site Assessments and Screening Level Phase II Investigation.

The soil vapor data do not suggest a significant release has occurred at the site that would require mitigation for commercial development. Soil sample data suggest metals are not present at concentrations indicative of environmental impact and generally are consistent with typical background concentrations. The few low concentrations of VOCs and relatively low and heavier end hydrocarbons detected in shallow soil do not suggest significant impacts are present in the areas investigated (AMEC 2012).

The following conclusions were made based on the Surface Soil and Soil Gas Sampling Report prepared for the Project (Appendix D):

- Concentrations of Title 22 metals and semivolatile organic compounds in soil are below the EPA's, Pacific Southwest Region 9, Regional Screening Levels developed for a commercial/industrial scenario.
- Concentrations of Organochlorine Pesticides in soil are below the California Environmental Protection Agency (Cal/EPA), OEHHA, residential and commercial/industrial California Human Health Screening Levels (CHHSLs), with the exception of toxaphene detected in one sample (B16-3'; 2,400 micrograms per kilogram), which exceeded the commercial/industrial CHHSL of 1,800 micrograms per kilogram.
- Concentrations of Total Petroleum Hydrocarbons (TPH) detected in soil are below the Los Angeles California Regional Water Quality Control Board's maximum soil screening levels above drinking water aquifers greater than 150 feet below ground surface (Table 4-1 in LARWQCB 1996, as cited in Appendix D) for TPH as gasoline (1,000 milligrams per kilogram (mg/kg)), TPH as diesel (10,000 mg/kg), and TPH as motor oil (50,000 mg/kg).
- Concentrations of VOCs detected in soil gas are below the Cal/EPA (2010, as cited in Appendix D) CHHSLs for shallow soil gas (engineered fill) in a commercial/industrial land use scenario, for carbon tetrachloride (0.21 micrograms per liter (µg/L)), Tetrachloroethylene (1.6 µg/L), and Trichloroethylene (4.4 µg/L). No CHHSLs are documented by Cal/EPA for the VOCs 1,1-dichloroethene, Freon 113, and chloroform in soil gas.

Based on analytical data and the findings of the Surface Soil and Soil Gas Sampling Report (Appendix D), additional assessment work is not warranted. However, any unknown subsurface structures or potentially contaminated soil encountered during site demolition and construction should be investigated for potential hazardous substances impacts to the property. Additional assessment around sample location B16 at 3 feet below ground surface (B16-3'), located at the eastern edge of the Project site may be warranted in order to define the lateral and vertical extent of Organochlorine Pesticide (toxaphene) impacts in the area as necessary, and where disturbance of shallow soil in that area is anticipated during any site redevelopment activities.

Therefore, in order to ensure that reasonably foreseeable and accident conditions are addressed and sufficiently responded to, MM-HAZ-1 is provided and would be implemented to ensure potential impacts during construction are reduced to a less-than-significant level.

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?

Less-Than-Significant Impact. The Van Nuys Regional Airport is located approximately 2.5 miles to the west; Whiteman Airport is located approximately 3.7 miles to the north; and Bob Hope Burbank Airport is located approximately 4 miles to the east of the Project site. However, the Project site is not located within the

Airport Influence Areas of any of these or any other airports. Therefore, the Project would not expose people working or residing in the Project area to hazards from airports or aircraft. Impacts associated with Project implementation would be less than significant.

f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project would be located within a vacant site, which is generally surrounded by industrial and commercial uses. Access to the site would be provided via two existing roadways: Tyrone Avenue and Hazeltine Avenue. No permanent or temporary street closures are planned during either Project construction or operations. Emergency access to or egress from the Project site or surrounding areas would not be adversely affected. As such, development of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and no impact would occur.

g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less-Than-Significant Impact. According to the *City of Los Angeles General Plan* Safety Element, no wildland fire hazard areas occur within the Project site or near the Project site (City of Los Angeles 1996). No construction or operational activity related to the Project would create a significant risk related to wildland fire. However, the Project is identified as an industrialized area in the *City of Los Angeles General Plan* Safety Element, which is a selected urban fire and secondary hazards area (City of Los Angeles 1996). The Project would complaint with the 2017 Los Angeles Fire Code, which is a component to the LAMC and is a combination of the California Fire Code and the Los Angeles Amendments (City of Los Angeles 2019). In addition, as discussed in Section 3.9(g); the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As such, impacts would be less than significant.

References

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3.10 Hydrology and Water Quality

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

a) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Short-Term Construction Impacts

Less-Than-Significant Impact. Without the appropriate controls in place, stormwater that is allowed to flow off site can potentially convey various sediments, pollutants, trash, and other constituents downstream, which subsequently adversely affects water quality of receiving waters. To reduce the potential for downstream water quality impacts, the proposed Project would comply with Municipal Code Chapter VI, Article 4.4, Section 64.70, (City of Los Angeles 2012), which states that refuse, rubbish, garbage, leaves, dirt, or other landscape debris shall be contained on the building site. The Project site is greater than 1 acre and would be subject to National Pollutant Discharge Elimination System (NPDES) Construction General Permit requirements. Under the NPDES Construction General Permit program, SWPPPs are prepared and the best management practices (BMPs) identified in the SWPPPs are implemented for construction sites greater than 1 acre to reduce the occurrence of pollutants in surface water. In compliance with applicable construction permits, the proposed Project would implement BMPs that minimize disturbance, protect slopes, reduce erosion, and limit or prevent various pollutants from entering surface water runoff. City-wide Low Impact Development (LID) Ordinance provides a set of BMPs that are intended to be inclusive of, and potentially exceed, Standard Urban Stormwater Mitigation Plan[7] (SUSMP) standards, apply to existing as well as new development, and emphasize natural drainage features and groundwater recharge in addition to pollution prevention in receiving waters. The LID Ordinance requires the capture and management of the first three quarters of an inch of runoff flow during storm events defined in the City's SUSMP BMPs, through one or more of the City's preferred SUSMP improvements: on-site infiltration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible.

[7] To obtain coverage under a Municipal NPDES Permit, a developer must obtain approval of a project-specific SUSMP from the appropriate Permittee. A SUSMP addresses the discharge of pollutants within stormwater generated following new construction or redevelopment. Under recent regulations adopted by the LARWQCB, projects are required to implement a SUSMP during the operational life of a project to ensure that stormwater quantity and quality are addressed by incorporating BMPs into project design.

The Proposed Project is within the San Fernando Basin (SFB), which is the major groundwater basin in Upper Los Angeles River Area. The SFB is regulated under the larger Los Angeles Regional Water Quality Control Board (LARWQCB) Basin Plan (State Water Board 2014). The LARWQCB Basin Plan provides regulation for the protection of surface water and groundwater quality within the Basin Plan area. The SFB contains trace levels of the contaminants trichloroethylene, perchloroethylene, and other VOCs were detected in the past (LADWP 2011). The presence of these contaminants is due to improper chemical disposal practices historically conducted by numerous companies in the San Fernando Valley utilizing such materials. While LADWP is permitted to withdraw its allotted entitlement of 87,000 AFY from the SFB including a portion of its additional stored water, 2007 was the first year LADWP was unable to pump its allotted entitlement due to contamination impacts (LADWP 2011).

Construction of the Project would result in ground surface disruption during grading and excavation reaching up to 3 feet in depth. Non-stormwater discharges during construction would include periodic application of water for dust control. Water applied for dust control would either quickly evaporate or locally infiltrate into shallow surface soils. This means that water applied for dust control is unlikely to appreciably affect groundwater or surface water features, and thus would have little to no potential to cause or contribute to exceedances of water quality objectives contained in the Basin Plan. Therefore, short-term construction impacts associated with water quality standards would be less than significant.

Long-Term Operational Impacts

Less-Than-Significant Impact. Once operational, the Project site would be entirely improved with water facility buildings, paved parking spaces and laydown areas, and landscape areas. Collectively, these on-site areas would reduce the potential for soils erosion and topsoil loss. The structural and paved improvements would cover impervious areas lacking any exposed soils. The landscape areas, although pervious, would contain various trees, shrubs, and groundcover that would help to stabilize any surface soils while also helping to contain these soils to the Project site.

The Project would comply with Municipal Code Chapter VI, Article 4.4, Section 64.70, the City of Los Angeles Low Impact Development Ordinance, which requires redevelopment projects that alter more than 50% of the impervious surfaces of the existing development, to design and implement post-construction controls to mitigate stormwater pollution throughout the entire Project site. As such, the Project would be required to incorporate a newly engineered stormwater drainage system, various Best Management Practices, and low-impact design techniques to treat on-site stormwater. Prior to construction of the proposed Project, the City would review this stormwater drainage and treatment system to ensure it is consistent with Municipal Code requirements. Through implementation of the City of Los Angeles Low Impact Development Ordinance, on-site water runoff would be routed to the stormwater drain system, therefore operations of the Project are unlikely to affect groundwater and thus, long-term operational impacts associated with water quality standards would be less than significant.

b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Groundwater Supplies

Less-Than-Significant Impact. A key resource that the City has relied upon as the major component of its local supply portfolio is local groundwater. Over the last 5 years, local groundwater has provided approximately 12% of the total water supply for Los Angeles and historically has provided nearly 23% of the City's total supply during extended dry periods. In recent years, contamination issues have impacted LADWP's ability to fully utilize its local groundwater entitlements (LADWP 2015).

The City owns water rights in the San Fernando, Sylmar, Eagle Rock, Central, and West Coast Basins (Basins). Groundwater extraction from these Basins are limited by court-defined rights recorded in the *Judgment of the California Superior Court in Case No. 650079, The City of Los Angeles vs. The City of San Fernando, et al.*, dated January 26, 1979. LADWP is therefore limited in the overall amount of groundwater that they can pump from the Basins. The City's entitlement averages total 109,809 acre-feet per year (AFY) for all Basins. Extracted water is "charged" to the City's pumping entitlement, as stipulated in the 1979 judgment. As such, groundwater extraction from the Basins would continue to be limited by LADWP's adjudicated water rights. Surrounding land uses are served by LADWP's distribution system and do not rely directly on groundwater wells (LADWP 2015).

The LADWP *Urban Water Management Plan 2015* (UWMP) provides multiple-dry-year supply and demand analysis for LADWP's domestic water service area. The UWMP indicates that MWD will continue to provide 100 percent reliability through 2040 for its member agencies during average, single dry, and multiple dry year conditions. For each of these scenarios there is a projected surplus of supply in every forecast year. As shown in Table 3-23, LADWP's supplies can meet demands during multiple dry years for the next 20 years.

In its UWMP, LADWP estimated that industrial uses within its water service area would demand be an average of 131 gallons per day per employee in 2020, 128 gallons per day per employee in 2030, and 126 gallons per day per employee in 2040. Thus, it is expected that, as an industrial use, the proposed Project could demand approximately 54,496 gallons per day (61.04 AFY)[8] of water in 2020. This would be a nominal percentage of LADWP's water demand forecast for all industrial uses in the service area of 18,869 AFY in 2020, 18,701 AFY in 2030 and 17,829 AFY in 2040. As stated in the UWMP and summarized in Table 3-23, the Project's water demand would represent a nominal percentage of the LADWP's current and future supplies, and overall, the LADWP has the water supplies to adequately serve the Project. In addition, the UWMP states that industrial uses are projected

[8] Assuming 131 gallons per day per employee and 416 employees, this would equate to 54,496 gallons per day (131 gallons per day per employee * 416 employees = 54,496 gallons per day). The Project would employ existing LADWP workers in addition to new workers; however, this analysis conservatively assumes all employees would be new.

to utilize 15,800 AFY of recycled water by 2030 and 2040 (Table 6-4 of the UWMP) (LADWP 2015). Therefore, the Project's demand for groundwater and domestic water supplies would be less than significant.

Table 3-23. Multiple Dry Year MWD Supply Capability and Projected Demands (AFY)

Fiscal Year	2020	2025	2030	2035	2040
Capability of Current Supplies	2,103,000	2,154,000	2,190,000	2,242,000	2,260,000
Projected Demands	2,001,000	2,118,000	2,171,000	2,216,000	2,258,000
Projected Surplus	102,000	36,000	19,000	26,000	2,000
Projected Surplus %	5%	2%	1%	1%	0.1%
Supplies under Development	43,000	80,000	204,000	245,000	286,000
Potential Surplus	145,000	116,000	223,000	271,000	288,000
Potential Surplus %	7%	5%	10%	12%	13%

Source: LADWP 2015
Notes: Units are in acre-feet per year.

Groundwater Recharge

Less-Than-Significant Impact. Once operational, the Project site would be predominantly composed of paved, impervious surfaces, and structures. However, the Project would be required to comply with the City of Los Angeles Low Impact Development Ordinance; therefore, the Project must be designed to capture stormwater runoff, to the maximum extent feasible, in priority order: infiltration, evapotranspiration, capture and use, treated through a high removal efficiency biofiltration/biotreatment system. The Project would be designed to collect and contain water on site and would promote groundwater recharge by allowing these on-site flows to percolate into subsurface soils. Therefore, impacts associated with groundwater recharge would be less than significant.

c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off site;

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

(iv) impede or redirect flood flows?

Less-Than-Significant Impact. No streams, rivers, wetlands, or other water bodies are located on, or within the vicinity of, the Project site. As such, the Project would not result in the alteration of the course of a stream

or river. However, construction of the Project would result in ground surface disruption during grading and excavation that could create the potential for erosion to occur. The construction contractor would be required to implement methods to minimize erosion and sedimentation during construction, in accordance with the Construction General Permit described in Section 3.10(a). Compliance with the Project-specific SWPPP that is required per the Construction General Permit, specifically the use of run-off control devices, would ensure that flooding on or off site is minimized during construction to the extent practicable.

During operation, the Project would result in the construction of water facility buildings and additional impervious surfaces on the site. However, the Project would comply with the City of Los Angeles Low Impact Development Ordinance, which requires management of stormwater on site, including measures to capture and infiltrate stormwater into pervious surfaces. Due to the required compliance with the ordinance, the Project would result in a less-than-significant impact relative to erosion or siltation on or off the Project site.

Considering the Project site is not located within a 100-year flood hazard area (FEMA 2008), and that the Project would be in accordance with the Construction General Permit and the City of Los Angeles Low Impact Development Ordinance, impacts related to this topic would be less than significant.

d) Would the Project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?

Less-Than-Significant Impact. As described in Section 3.10(c), the Project site is not located within a 100-year flood hazard area (FEMA 2008). As such, the Project would not result in the alteration of the course of a stream or river. The proposed Project site is not located within a hillside area or a tsunami inundation area (City of Los Angeles 1996). Therefore, the Project site would not be subject to inundation by tsunami or mudflow.

The Project site is located within a potential inundation area, as mapped in the *City of Los Angeles General Plan* Safety Element. This mapped inundation area covers approximately half of the San Fernando Valley and is primarily associated with the Los Angeles Reservoir, Hansen Dam, and Sepulveda Dam (City of Los Angeles 1996). These maps are based on the assumption of an immediate and total catastrophic failure of a dam(s), and do not consider the effects of dam safety regulations (such as continual monitoring/inspections) or show the actual probability of failure. These maps are prepared as worst-case scenarios for emergency planning purposes and the actual likelihood of a dam breach is low, given the Department of Water Resources Division of Safety of Dams requires annual monitoring/inspections, and corrective actions if any dam is shown to have vulnerabilities—either structural or earthquake related. Dams and reservoirs are also monitored by the City during storms. However, the Project site is approximately 3 miles or more from these inland water bodies. The potential for seiches to occur within these inland water bodies is reduced through regulation of their water levels and the provision of walls of extra height to contain seiches. Given these safety measures and the distance between the Project site and the nearest inland water body, inundation related to a seiche is considered unlikely.

Additionally, the Project would not involve development of new residences. Therefore, risks associated with dam inundation on the proposed Project are not considered to be significant. Impacts would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-Than-Significant Impact. As previously discussed, the Project would incorporate temporary Best Management Practices during construction activities and Low Impact Development techniques during the operational phase to help ensure that stormwater, as well as any potential pollutants contained within these flows, is adequately collected and treated on the Project site to avoid conveying stormwater off site and causing subsequent downstream impacts. As such, with compliance with regulatory requirements, the proposed Project would reduce potential water quality impairment of surface waters such that existing and potential beneficial uses of key surface water drainages throughout the jurisdiction of the LARWQCB Basin Plan would not be adversely impacted. As a result, the proposed Project would not conflict with or obstruct the LARWQCB Basin Plan.

With respect to groundwater management, the Sustainable Groundwater Management Act empowers local agencies to form Groundwater Sustainability Agencies to manage basins sustainably, and requires those Groundwater Sustainability Agencies to adopt Groundwater Sustainability Plans for crucial groundwater basins in California. A Groundwater Sustainability Agency has not been established for the San Fernando Basin, as it is not considered a high priority basin. Further, as previously discussed, the Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. As a result, the Project would not conflict with or obstruct this sustainable groundwater management plan. Impacts would be **less than significant**.

References

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City of Los Angeles. 2012. City of Los Angeles Municipal Code, Chapter VI Public Works and Property, Article 4.4 Stormwater and Urban Runoff Pollution Control. https://law.resource.org/pub/us/code/city/ca/LosAngeles/Municipal/chapter06.pdf.

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LADWP. 2015. *Mid Valley Water Facility Conceptual Design Report*. Revision D. Task Order ESC-33. Prepared by CDM Smith. August 28, 2015.

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3.11 Land Use and Planning

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

a) Would the Project physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, that would impair mobility within an existing community or between a community and outlying area. Under the existing conditions, the Project site is not used as a connection between established communities. Instead, connectivity in the surrounding Project area is facilitated via local roadways and pedestrian rights-of-way. Therefore, no impacts associated with physical division of an established community would occur.

b) Would the Project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The Project would be located on a site that is owned by LADWP and that is immediately east of the existing LADWP Power Yard. The Project site is located within the M2-1 zone, with a General Plan land use designation of Light Manufacturing. The site is also located within a Los Angeles State Enterprise Zone as well as within Metropolitan Transportation Authority Project and Transit Priority Areas given the site's proximity to the Van Nuys Metrolink station. Due to the Project site's proximity to the Bob Hope and Van Nuys Airports, height

restrictions are in place for the site. Depending on the specific location within the site, the height limit is 150, 200, or 500 feet above elevation of 790 feet. The average elevation of the site is 770 feet, thereby providing a maximum allowable height of between 170 and 270 feet. However, none of the proposed buildings would exceed 75 feet in height. As such, the Project would not conflict with any applicable land use plan, policy, or regulation; no impact would occur.

3.12 Mineral Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

a) Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. According to the State of California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, there are no gas, geothermal, or other known wells located on the Project site. The closest well is located approximately 0.4 mile southwest from the Project site and is operated by Chevron U.S.A (CDOC 2016). The Project would not result in a land use conflict with the existing oil extraction, nor would it preclude future oil extraction on underlying deposits. According to Exhibit A of the *City of Los Angeles General Plan* Conservation Element, the Project site is not located within a mineral resource zone (City of Los Angeles 2001). Therefore, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impact would occur, and no mitigation is required.

b) Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. According to Exhibit A of the *City of Los Angeles General Plan* Conservation Element, the Project site is not located within a mineral resource zone (City of Los Angeles 2001). Further, as discussed in Section 3.12(a), there are no gas, geothermal, or other known wells located on the Project site, and the Project would neither result in a land use conflict with the existing oil extraction, nor preclude future oil extraction on

underlying deposits. Therefore, implementation of the Project would not result in the loss of availability of a locally important mineral resource recovery site; no impacts would occur, and no mitigation is required.

References

CDOC (California Department of Conservation). 2016. "Division of Oil, Gas, and Geothermal Resources Well Finder." Accessed June 2016. http://maps.conservation.ca.gov/doggr.

City of Los Angeles. 2001. "Conservation Element." In *City of Los Angeles General Plan.* Adopted September 26, 2001. Accessed January 2017. http://planning.lacity.org/cwd/gnlpln/consvelt.pdf.

3.13 Noise

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) Be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Existing Noise Conditions

The proposed Project site is located at 7600 North Tyrone Avenue in the Van Nuys area of the City. Currently, the Project site is vacant. Land uses in the immediate vicinity of the Project site are predominantly light industrial. Located immediately north of the Project site are railroad tracks utilized by Amtrak, Metrolink, and others. North of the railroad tracks are additional light industrial uses and big box retail. West of the Project site is the LADWP Power System Yard, which is accessed via Van Nuys Boulevard. Fronting Van Nuys Boulevard are predominantly retail uses. South of the Project site is a light industrial complex, and further to the south are Covello Street and a residential neighborhood of

single-family homes, located approximately 560 feet south of the Project's southern boundary. East of the Project site is a used car sales lot that processes donated vehicles.

Two major airports are located within relative close proximity of the Project site. The Bob Hope Burbank Airport is located approximately 4 miles to the east, and the Van Nuys Regional Airport is located approximately 2.5 miles to the west. Additionally, at the intersection of Van Nuys Boulevard with the railroad tracks, a new Metrolink train station is currently under construction.

The Project site is located within the M2-1 zone, with a General Plan land use designation of Light Manufacturing. The City of Los Angeles' Municipal Code permissible ambient noise levels within areas zoned M2-1 are 65 A-weighted decibels (dBA) during daytime and nighttime due to light and heavy industrial uses (City of Los Angeles 2016). Currently, the Project site and surrounding area experience noise associated with the surrounding land uses; noise from trucks and passenger vehicles, forklifts, and other machinery, as well as substantial levels of traffic noise on nearby roadways including Van Nuys Boulevard and Hazeltine Avenue; and noise from the adjacent rail line on the northern boundary of the Project site, overhead aircraft, and ambient community noise.

Noise measurements were conducted at noise-sensitive land uses adjacent to the Project site in December 2016 to characterize the existing noise environment. The daytime, short-term (1 hour or less) attended sound level measurements were taken with a Rion NL-52 sound-level meter. This sound-level meter meets the current American National Standards Institute standard for a Type 1 precision sound-level meter. The calibration of the sound level meter was verified before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Four noise measurement locations (M1–M4) were selected. Measurement locations M1 – M3 represent the nearest noise-sensitive land uses, and one (M4) represents existing on-site noise conditions. The measurement locations are shown in Figure 3-3, and the measured average noise levels and measurement locations are provided in Table 3-24. Noise measurement data is also included in Appendix E. The primary noise sources at the locations consisted of traffic along the adjacent roads, distant traffic, birds, aircraft, and neighborhood community noise. As shown in Table 3-24, the measured noise levels ranged from 54 dBA equivalent continuous sound level (L_{eq}) at M4 to 72 dBA L_{eq} at M1.

Table 3-24. Measured Noise Levels

Receptors	Location/Address	Date	Time	L_{eq} (dBA)	L_{max} (dBA)
M1	Near residence southeast corner of Tyrone Avenue and Covello Street.	December 15, 2016	11:05 a.m. – 11:15 a.m.	72.2	88.6
M2	Residence (14127 Cohasset Street) south of Covello Street, west of Hazeltine Avenue.	December 15, 2016	12:05 p.m. – 12:15 p.m.	55.3	93.6

Table 3-24. Measured Noise Levels

Receptors	Location/Address	Date	Time	L_{eq} (dBA)	L_{max} (dBA)
M3	Residence (14431 Cohasset Street) south of Covello Street, east of Van Nuys Boulevard.	December 15, 2016	11:45 a.m. – 11:55 a.m.	57.6	92.3
M4	On site, near southern project boundary.	December 15, 2016	11:20 a.m. – 11:30 a.m.	53.5	76

Source: Appendix E.
Note: L_{eq} = equivalent continuous sound level (time-averaged sound level); Lmax = maximum sound level during the measurement interval

Regulatory Framework

City of Los Angeles Noise Ordinance

The City of Los Angeles regulates noise through several sections of its Municipal Code (City of Los Angeles 2016): Section 41.40 (Noise Due to Construction, Excavation Work – When Prohibited), which establishes time prohibitions on noise generated by construction activity; Section 112.04 (Powered Equipment Intended for Repetitive Use in Residential Areas and Other Machinery, Equipment and Devices), which prohibits the use of loud machinery and/or equipment within 500 feet of residences and prohibits noise from machinery, equipment, or other devices that would result in an increase of more than 5 decibels (dB) above the ambient noise level at residences; and Section 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools), which establishes maximum noise levels for powered equipment and powered hand tools (i.e., 75 dBA at a distance of 50 feet for construction, industrial, and agricultural equipment between the hours of 7:00 a.m. and 10:00 p.m.). According to Section 41.40, no construction activity that might create loud noises in or near residential areas or buildings shall be conducted between the hours of 9:00 p.m. and 7:00 a.m. on weekdays, before 8:00 a.m. or after 6:00 p.m. on Saturday and national holidays, or at any time on Sunday.

a) Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Less-Than-Significant Impact. Construction noise and vibration are temporary phenomena. Construction noise and vibration levels vary from hour to hour and day to day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor. Construction of the proposed Project would begin in November 2020 and would be completed by the end of January 2023. Construction of the proposed Project would include site preparation, grading, trenching, building construction, paving, and application of architectural coatings.

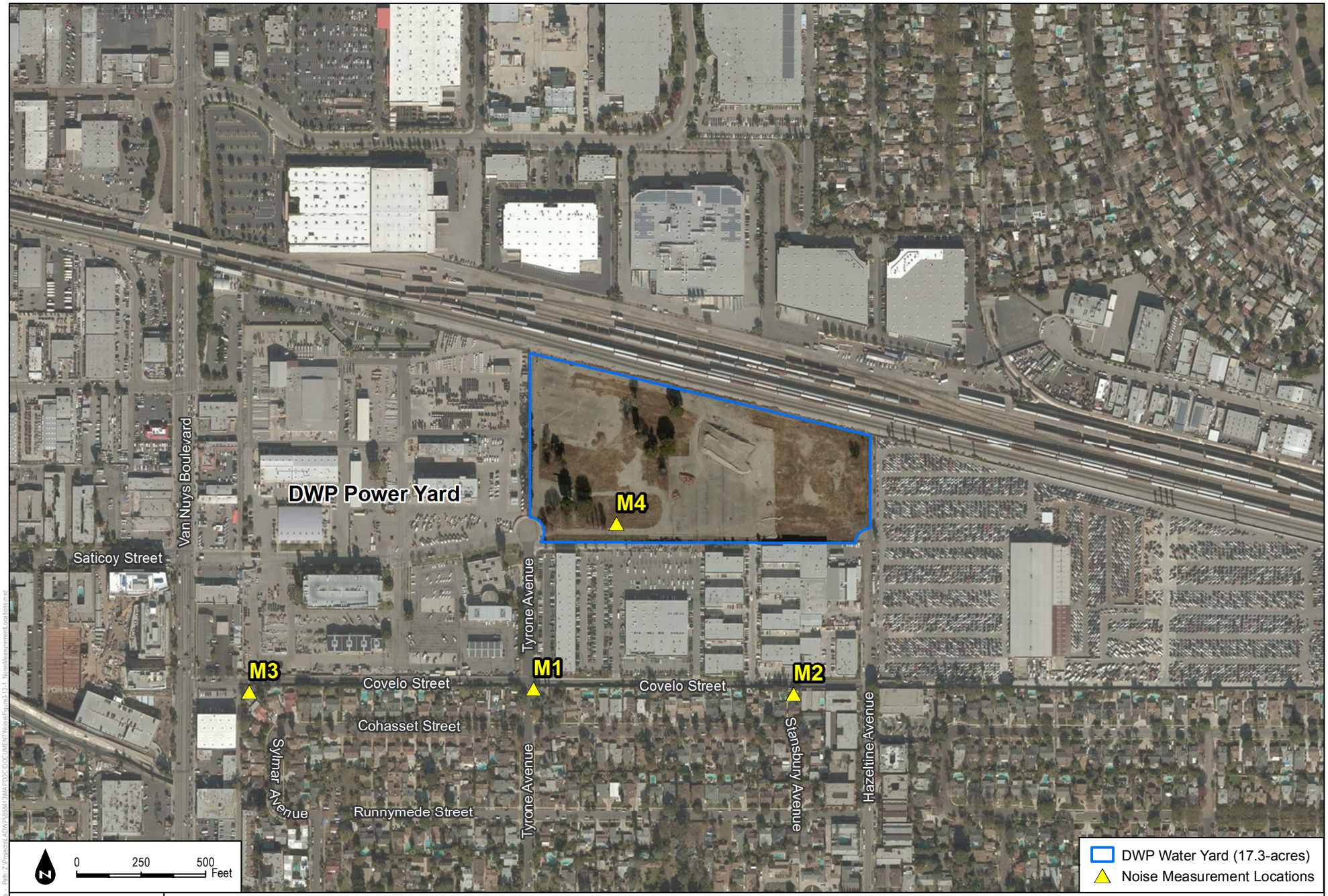
Equipment that would be in operation during construction would include rubber-tired dozers, graders, tractors/loaders/backhoes, cranes, forklifts, welders, generator sets, pavers, paving equipment, cement mixers, and air compressors. The types of construction equipment that would be used to construct the proposed Project include standard equipment that would be employed for any routine construction project of this scale; construction equipment with substantially higher noise-generation characteristics (such as pile drivers, rock drills, blasting equipment) would not be necessary for construction of the Project.

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time each piece is in operation, condition of each piece of equipment, and number of pieces that would operate on the Project site. The typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet are presented in Table 3-25, Construction Equipment Maximum Noise Levels. Note that the equipment noise levels presented in Table 3-25 are maximum noise levels. Typically, construction equipment operates in alternating cycles of full power and low power, producing average noise levels less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 3-25. Construction Equipment Maximum Noise Levels

Equipment	Sound Level (dBA) 50 Feet from Source
Air compressor	81
Backhoe	80
Compactor	82
Concrete mixer	85
Concrete pump	82
Concrete vibrator	76
Crane, mobile	83
Dozer	85
Generator	81
Grader	85
Impact wrench	85
Jackhammer	88
Loader	85
Paver	89
Pneumatic tool	85
Pump	76
Roller	74
Saw	76
Truck	88

Source: FTA 2018.



SOURCE: Bing Maps, 2016

FIGURE 3-3

Noise Measurement Locations

Mid Valley Water Facility Project

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The maximum noise levels at 50 feet for typical construction equipment would range up to 89 dB for the type of equipment normally used for this type of development project, although the hourly noise levels would vary. Construction noise in a well-defined area typically attenuates at approximately 6 dB per doubling of distance. Project construction would take place both near and far from adjacent, existing noise-sensitive uses. For example, construction of the proposed Project along the southern Project boundaries would take place within approximately 560 feet of existing residences. However, during construction of other Project components, construction would be approximately 1,300 feet or more away from existing noise-sensitive uses.

The Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land use. Although the model was funded and promulgated by the FHWA, the RCNM is often used for non-roadway projects because the same types of construction equipment used for roadway projects are also used for other project types. Input variables for the RCNM consist of the receiver/land use types, the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of hours the equipment typically works per day), and the distance from the noise-sensitive receiver. Because the nearest noise-sensitive land uses (residences to the south) have solid masonry property-line walls along their northern boundaries, and because light-industrial buildings exist between the Project site and the residential uses, a conservative 5 dB to account for structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis.

Using the FHWA's RCNM construction noise model and construction information (types and number of construction equipment by phase), the estimated noise levels from construction were calculated for a representative range of distances, as presented in Table 3-26, Construction Noise Model Results Summary. The RCNM inputs and outputs are provided in Appendix E.

Table 3-26. Construction Noise Modeling Summary Results

Construction Phase	L_{eq} (dBA)	
	Nearest Receiver 560'	*Typical Receiver 850'*
Site Preparation	59	56
Grading	60	56
Trenching & Underground Utilities	57	54
Perimeter Wall Construction	60	56
Paving & Site Infrastructure	60	57
Office Building and Staff Parking Structure Construction	58	55
Water Distribution Shop and Maintenance Building Construction	55	52
Department Fleet Vehicles Parking Structure Construction	55	52

Table 3-26. Construction Noise Modeling Summary Results

Construction Phase	L_{eq} (dBA)	
	Nearest Receiver 560'	*Typical Receiver 850'*
Supply Chain Services Warehouse Construction	47	43
Fleet Maintenance	47	43
Building and CNG Dispensing Area Construction	60	57
Architectural Coating	48	44
Street Improvement of Hazeltine Ave.	60	56

Source: Appendix E
Note: L_{eq} = equivalent continuous sound level

As shown in Table 3-26, the highest noise levels are predicted to occur during grading, perimeter wall construction, paving, building and CNG area, and street improvements, when noise levels from construction activities would be as high as 60 dBA L_{eq} at the nearest existing residences, approximately 560 feet away. Typically, construction noise levels are anticipated to range from approximately 43 to 57 dBA L_{eq}.

The City's Municipal Code prohibits loud construction noise in or near residential areas or buildings between the hours of 9:00 p.m. and 7:00 a.m. on weekdays, before 8:00 a.m. or after 6:00 p.m. on Saturday and national holidays, or at any time on Sundays. Construction activities for this Project would occur over 500 feet away from residences, and the resultant noise levels at the nearest residences would be relatively low. Therefore, temporary ambient noise impacts from construction would be less than significant.

On-Site Operational Noise

Less-Than-Significant Impact. Once constructed, the Project would provide laydown and equipment yard areas, parking for employee and department vehicles, a CNG fueling station, warehouse, loading dock and staging areas, construction areas and fabrication shops, conference rooms and ancillary facilities such as a break/lunch room, a fitness room, showers, locker rooms, and building services offices. Noise would be generated by these facilities and planned activities, particularly those activities taking place outdoors such as laydown and exterior construction areas, loading docks etc. However, the site is configured such that these noisier activities would generally take place away from the southern side of the site, where the nearest noise-sensitive land uses exist (residences, located a minimum of 560 feet away). Additionally, the Project includes a continuous row of buildings that would be constructed along the south side of the Project site such that the on-site activities would be both acoustically and visually shielded from the south by the buildings. Existing structures between the Project site and the residences to the south also would provide substantial noise reduction, as would existing structures in between the next-nearest residences, located approximately 750 feet or more to the northeast.

Based upon the distance between the Project site and the nearest noise-sensitive uses, the Project's design, which would provide acoustical shielding, and existing intervening structures, no exceedance of City noise standards or substantial increase compared to existing noise levels would occur. As such, permanent ambient noise impacts associated with Project operations would be less than significant. No mitigation is required.

Off-Site Operational (Traffic) Noise

Less-Than-Significant Impact. The proposed Project would add passenger vehicle and truck trips along local roadways. According the City of Los Angeles CEQA Thresholds Guide (City of Los Angeles 2006) "A project would normally have a significant impact on noise levels from project operation if the project causes the ambient noise level measured at the property line of an affected use to increase by 3 decibels (dBA) or more in community noise equivalency level (CNEL) to or within the "normally unacceptable" or "clearly unacceptable" category of the noise exposure chart prepared by the California Department of Health Services, or any 5 dBA or greater noise increase."

The results of the traffic modeling for the existing and existing plus Project scenarios are summarized in Table 3-27, and the traffic noise model input/output files are located in Appendix E. As shown, the Project-related traffic would result in a noise level increase of 2 dB CNEL or less (rounded to whole numbers) along the studied roads in the vicinity of the Project site. None of the modeled receivers would exceed the 65 dBA CNEL City noise standard (City of Los Angeles 1999) for residences as a result of the increase in Project-related traffic. Additionally, noise increases would be well below the significance threshold of 5 dB. Therefore, traffic related to the proposed Project would not exceed any noise standards and would not substantially increase the existing noise levels in the Project vicinity, and permanent traffic-related ambient noise impacts would be less than significant. No mitigation is required.

Table 3-27. Traffic Noise (Existing and Existing Plus Project)

Modeled Receptor	Existing Noise Level (dBA CNEL)	Existing Plus Project Noise Level (dBA CNEL)	Noise Level Increase (dB)
M1	56	56	0
M2	58	59	1
M3	60	60	0
Hazeltine Avenue north of Valerio Street	61	61	0
Tyrone Avenue north of Valerio Street	54	55	1
Valerio Street west of Tyrone Avenue	63	63	0
Valerio Street east of Tyrone Avenue	63	63	0
Valerio Street east of Hazeltine Avenue	64	64	0

Source: Appendix E.

The noise level increases associated with additional traffic volumes under future (Year 2023) without Project traffic conditions and future with Project traffic conditions are summarized in Table 3-28. None of the modeled receivers would exceed the 65 dBA CNEL City noise standard as a result of the increase in Project-related traffic. The noise level increases associated with the Project under future traffic conditions would be 2 dB or less (rounded to whole numbers). Therefore, traffic related to the proposed Project would not exceed any noise standards and would not substantially increase the existing noise levels in the Project vicinity. Operational traffic-related noise impacts would be less than significant. No mitigation is required.

Table 3-28. Traffic Noise (Future and Future Plus Project)

Modeled Receptor	Future without Project Noise Level (dBA CNEL)	Future Plus Project Noise Level (dBA CNEL)	Noise Level Increase (dB)
M1	56	56	0
M2	58	59	1
M3	60	60	0
Hazeltine Avenue north of Valerio Street	61	61	0
Tyrone Avenue north of Valerio Street	54	55	1
Valerio Street west of Tyrone Avenue	63	63	0
Valerio Street east of Tyrone Avenue	63	63	0
Valerio Street east of Hazeltine Avenue	64	64	0

Source: Appendix E.

b) Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Less-Than-Significant Impact. Construction activities that might expose persons to excessive groundborne vibration or groundborne noise could cause a potentially significant impact. Groundborne vibration information related to construction activities has been collected by Caltrans (Caltrans 2013). Information from Caltrans indicates that transient vibrations (such as construction activity) with a peak particle velocity of approximately 0.035 inch per second may be characterized as barely perceptible, and vibration levels of 0.24 inch per second may be characterized as distinctly perceptible. The heavier pieces of construction equipment, such as bulldozers, would have peak particle velocities of approximately 0.089 inch per second or less at a distance of 25 feet (FTA 2018).

Groundborne vibration is typically attenuated over short distances. At the nearest existing noise/vibration-sensitive land uses (residential) distance to the nearest construction area (approximately 560 feet) and with the anticipated construction equipment, the peak particle velocity would be approximately 0.001 inch per second. This vibration level is well below the threshold of "barely perceptible" of 0.035 inch per second vibration.

The major concern with regards to construction vibration is related to building damage. Construction vibration as a result of the proposed Project would not result in structural building damage, which typically occurs at

vibration levels of 0.5 inch per second or greater for buildings of reinforced-concrete, steel or timber construction. Therefore, excessive groundborne vibration and groundborne noise would not be generated. Impacts related to groundborne vibration would be less than significant.

Operation

Less-Than-Significant Impact. As described in 3.12(a), once operational the new facilities would replace and consolidate a combination of outdated buildings and trailers at numerous locations throughout the San Fernando Valley. On-site activities would include receiving and storing bulk deliveries, facilities maintenance, testing and calibration of meters, sand blasting, coating application, welding, and fleet maintenance. Although these activities would generate groundborne vibration, the vibration levels are anticipated to be similar to those generated by construction projects and in the same manner would attenuate over relatively short distances. At the nearest noise/vibration-sensitive land uses, located a minimum of 560 feet away, groundborne vibration levels would be well below the thresholds of perception or potential structural damage. Impacts associated with Project operations would be less than significant.

c) For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

Less-Than-Significant Impact. The Van Nuys Regional Airport is located approximately 2.5 miles to the west; Whiteman Airport is located approximately 3.7 miles to the north; and Bob Hope Burbank Airport is located approximately 4 miles to the east of the Project site. However, the Project site is not located within the Airport Influence Areas of any of these or any other airports (Los Angeles County Airport Land Use Commission 1991). Therefore, the Project would not expose people working or residing in the Project area to excessive noise levels from airports or aircraft. Impacts associated with Project implementation would be less than significant.

References

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3.14 Population and Housing

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less-Than-Significant Impact. The Project would involve construction of a consolidated campus with modern facilities and consolidated operations for the Water System. Specifically, new facilities would be constructed for Trunk Line Construction, Main Line Construction, Meter Shop, Supply Chain Services, Fleet Services, Emergency Operations Center, and Trouble Board groups. The Project would not include the construction or development of housing facilities. Although the Project would involve the consolidation of existing LADWP water facilities, and would use employees from the existing water facilities, the Project would involve an increase in employees to accommodate the new Water Facility.

In 2023, upon buildout of the Project, it is anticipated that 316 employees would be employed at the Water Facility.

SCAG is a metropolitan planning organization that represents the Counties of Ventura, Los Angeles, San Bernardino, Orange, Riverside, and Imperial. As part of the 2016–2040 RTP/SCS, SCAG has prepared

population, household, and employee projections for the region. Table 3-29 shows the employee projections from 2012 to 2040 for the City of Los Angeles. Although employees are expected to come from multiple cities throughout the San Fernando Valley, the existing and future employee distribution data is not available. Therefore, it was conservatively assumed that all future employees would come from the City of Los Angeles.

Table 3-29. Employment Growth for the City of Los Angeles

	2012	2040
Employment	1,696,400	2,169,100

Source: SCAG 2016.

The Project would employ 316 workers, and it is conservatively assumed that the Project would introduce 316 new employees to Van Nuys, in the City of Los Angeles, although the Project would employ existing LADWP workers from the sites being consolidated as part of the Project. This increase is only 0.10% of SCAG's overall growth of 472,700 employees for the City from 2012 to 2040. Therefore, employee growth is consistent with SCAG's overall growth projections and would not result in a substantial increase in population growth. Impacts as a result of increase in employees would be less than significant.

b) Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed Project would neither displace existing people or housing nor necessitate the construction of replacement housing. Therefore, no impact would occur.

References

SCAG (Southern California Association of Governments). 2016. "Current Context – Demographics & Growth Forecast 2016 RTP/SCS Appendix." In *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*. Adopted April 2016. http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf.

3.15 Public Services

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less-Than-Significant Impact. Fire protection for the Project site is provided by the Los Angeles Fire Department (LAFD), and the monitoring of operations is provided by LADWP. Once operational, the Project would continue to be served by the LAFD. While the Project could potentially result in a slight increase in calls for service to the Project site in comparison to the existing conditions, this increase is expected to be nominal and would not result in the need for new LAFD facilities. Overall, it is anticipated that the Project would be adequately served by existing LAFD facilities, equipment, and personnel. Therefore, impacts associated with the construction of LAFD facilities would be less than significant.

Police protection?

Less-Than-Significant Impact. Police protection for the Project site is provided by the Los Angeles Police Department (LAPD) and LADWP security personnel. The Project would be enclosed with fencing upon Project implementation. Both site entrances have locked gates.

Similar to fire protection services, the Project site is already within the service area of the LAPD, and once operational, the Project would continue to be served by the LAPD. While the Project would potentially result in

a slight increase in calls for service to the Project site in comparison to the existing conditions, this increase is expected to be nominal and not result in the need for new LAPD facilities. Overall, it is anticipated that the Project would be adequately served by existing LAPD facilities, equipment, and personnel. Therefore, impacts associated with the construction or expansion of LAPD facilities would be less than significant.

Schools?

Less-Than-Significant Impact. As previously discussed in Section 3.15(a), the proposed Project would not substantially induce population growth in the City. As such, it is not anticipated that a significant number of people would relocate to the City as a result of the Project, and an increase in school-age children requiring public education is not expected to occur as a result of the Project. Therefore, impacts associated with the construction or expansion of school facilities would be less than significant.

Parks?

Less-Than-Significant Impact. As further discussed in Section 3.16, Recreation, the proposed Project would not substantially induce population growth in the City. As such, an increase in patronage at park facilities is not expected. Impacts associated with the construction or expansion of park facilities would be less than significant.

Other public facilities?

Less-Than-Significant Impact. The proposed Project would not substantially induce population growth in the City. Thus, a substantial increase in patronage at libraries, community centers, or other public facilities is not expected. Therefore, impacts associated with the construction or expansion of public facilities would be less than significant.

3.16 Recreation

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. Demand for neighborhood or regional parks or other recreational facilities is primarily generated by an increase in the permanent residential population. The Project does not propose any residential uses that may increase the utilization of existing neighborhood parks in the vicinity such that substantial physical deterioration of the facility or an increase in park facilities would occur or be accelerated. Therefore, no impacts associated with parks or other recreational facilities would occur, and no mitigation is required.

b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. As discussed in Section 3.16(a), the Project site does not operate as a recreational facility and the Project does not include recreational facilities, or require the construction or expansion of recreational facilities. Therefore, no impacts to recreational facilities would result that might have an adverse physical effect on the environment and no mitigation is required.

3.17 Transportation

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

This analysis is based on the Transportation Impact Study prepared for this Project, included as Appendix F to this MND. The City of Los Angeles Department of Transportation's reviewed and approved the Transportation Impact

Study. A copy of LADOT's Assessment Letter of the Transportation Impact Study is also included in Appendix F. Nine intersections were defined for analysis in the Transportation Impact Study. They include:

1. Van Nuys Boulevard/Saticoy Street
2. Van Nuys Boulevard/Valerio Street
3. Tyrone Avenue/Valerio Street
4. Hazeltine Avenue/Valerio Street
5. Woodman Avenue/Valerio Street
6. Van Nuys Boulevard/Sherman Way
7. Tyrone Avenue/Sherman Way
8. Hazeltine Avenue/Sherman Way
9. Woodman Avenue/Sherman Way

All study intersections are signalized.

Study Scenarios

Weekday morning and afternoon peak hour traffic operations were evaluated at the nine study intersections for each of the following traffic scenarios:

- Existing (Year 2018)
- Existing Plus Project
- Future (Year 2023) without Project
- Future (Year 2023) with Proposed Project

Existing Conditions

To define existing traffic conditions, new peak period turning movement counts were collected on Wednesday, December 12, 2018, at the study intersections. The analysis of existing traffic volumes used for this traffic analysis and the peak-hour turning movement traffic volume counts are provided in Appendix F.

Google Earth aerial footage and street view was reviewed to identify the lane characteristics of major roadways, to identify traffic control and lane configuration at each study intersection, and to identify the location of on-street parking and transit stops.

The existing conditions at each of the study intersections and street segments is further discussed in Appendix F.

Project Trip Generation and Distribution

Project trip generation calculations included rates established by Trip Generation (10th edition), published by the Institute of Transportation Engineers (ITE). Due to the Project's proximity to the Amtrak/Metrolink Station and bus lines operating along Van Nuys Boulevard, a transit trip generation credit was applied. Additionally, an adjustment was also made due to a high percentage of commuters arriving and leaving work outside of AM and PM peak hours.

Existing Plus Project Conditions

Based on the traffic from the proposed Project, the existing plus Project conditions were analyzed. The LOS for existing plus Project conditions for the study area is discussed in Appendix F.

Future Without Project Conditions

In order to define regional traffic growth that would affect operations at the study intersections during the Project buildout year (2023), an ambient/background traffic growth rate was defined to account for increase in area-wide traffic. An annual growth rate of 0.54%, as provided in the "General Traffic Volumes Growth Factors" (from the respective Regional Statistical Area #12 – RSA) found in Exhibit D-1 of the Los Angeles County Congestion Management Program (CMP) (Metro 2010), was utilized to increase existing (year 2018) traffic volumes to establish future (year 2023) base traffic volumes.

In addition to future ambient growth, traffic from projects in the area (approved and pending) was also included in the analysis. Information was collected by the City of Los Angeles pertaining to approved projects and projects pending approval in the vicinity of the Project site. Daily and peak-hour trips generated from each of the related projects were computed. The trip rates are generally based on the ITE (2017) Trip Generation Manual, 10th edition.

Future With Project Conditions

Based on the inclusion of future ambient growth, traffic from related projects in the area (approved and pending), and traffic from the proposed Project, future with Project conditions were analyzed.

Determination of Traffic Impacts on Intersections

Traffic impacts are identified if a proposed development will result in a significant change in traffic conditions at a study intersection. A significant impact is typically identified if project-related traffic will cause LOS to deteriorate beyond a threshold limit specified by the overseeing agency. Impacts can also be significant if an intersection is already operating below an acceptable LOS and project-related traffic will worsen conditions within the specified threshold range. The City of Los Angeles Department of Transportation has established specific thresholds for project-related increases in the V/C of signalized study intersections. Table 3-30 shows the increases in peak-hour V/C ratios which are considered significant impacts.

Table 3-30. Impact Criteria

LOS	Final V/C	Project Related V/C Increase
C	<0.701 – 0.800	Equal to or greater than 0.040
D	<0.801 – 0.900	Equal to or greater than 0.020
E and F	0.901 or more	Equal to or greater than 0.010

Notes: LOS = Level of Service; V/C = volume to capacity

a) Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less-Than-Significant Impact. Measures of effectiveness for the performance of the circulation system in the City are established by the City of Los Angeles Department of Transportation (LADOT) in the *City of Los Angeles Traffic Study Policies and Procedures*. Measures of effectiveness for the vehicular circulation system are based on the V/C ratio and LOS of intersections and roadways within the City. Potential impacts to intersections and roadway segments are analyzed based on projected future traffic conditions plus Project-generated traffic. Impacts to intersections and street segments are measured in terms of increases in V/C ratio, the significance of which is based on the future projected LOS. LADOT typically requires a traffic study for projects that are likely to add 500 or more daily trips or likely to add 43 or more AM or PM peak-hour trips. LADOT requires that a technical memorandum be prepared for projects that are likely to add 25 to 42 AM or PM peak-hour trips, and the adjacent intersection(s) are presently estimated to be operating at LOS E or F (LADOT 2014).

Construction

The following assumptions were applied to the Project peak construction-period trip generation analysis:

- Construction workers would total approximately 98 persons.
- Total passenger vehicles traveling to and from the site on a daily basis would be 196 (round trip) assuming no workers would carpool.
- 68 truck trips per day (or 170 Passenger Car Equivalent (PCE) truck trips per day) are anticipated during the peak construction period.

Truck trips were multiplied by a PCE factor of 2.5, consistent with truck studies in the region.

Table 3-31 reflects the number of trips that would occur during the most trip-intensive month of construction, which occurs during fall of 2021 and includes the overlap of the following phases:

- Site Preparation (Phase 1)
- Office Building and Staff Parking Structure Construction (Phase 6)

- Water distribution Shop and Maintenance Building Construction (Phase 7)
- Department Fleet Vehicle Parking Structure Construction (Phase 8)
- Supply Chain Services Warehouse Construction (Phase 9)
- Fleet Maintenance Building and CNG Dispensing Area Construction (Phase 10) phases.

All construction phases, along with approximate numbers of daily trips and phase start and end dates, are detailed in Table 2-2, Anticipated Construction Schedule (Section 2.3).

Table 3-31. Peak Period Construction Trip Generation Estimates

Trip Generation (Peak Construction)[1]							
	Average Daily	*AM Peak Hour*			*PM Peak Hour*		
Vehicle Type	*Trips*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Construction Workers[2]	196	98	0	98	0	98	98
Truck Vendors (2.5 PCE)[3]	170	11	11	22	11	11	22
Total	**366**	**109**	**11**	**120**	**11**	**109**	**120**

Notes: PCE = passenger car equivalent

1 The peak construction period includes Phases 1,6,7,8,9,10.

2 Approximately 98 workers per day (196 trips per day), assumed all would arrive and depart during the AM/PM peak hours and no carpooling would occur.

3 Approximately 68 daily vehicle trips; a PCE factor of 2.5 was applied. An 8-hour workday is assumed.

As shown in Table 3-31, the temporary construction traffic that would be generated by the proposed Project would be above the thresholds for further analysis that are established by LADOT. However, construction traffic would be less than that generated during operation of the Project, as detailed below Therefore, as the following operational analysis shows that the proposed Project would generate no significant impacts to the transportation network, Project construction traffic would also not create a significant traffic impact at any of the study intersections.

Operation

Traffic volumes that are expected to be generated by the Project during the weekday AM and PM peak hours and daily periods were estimated based on the Utility trip rate (ITE Code 170) defined in the ITE Trip Generation (10th edition). The trip rates and the traffic generation forecast for the proposed Project are provided in Table 3-32.

Table 3-32. Project Trip Generation Estimates

ITE Trip Generation Rates								
			AM Peak Hour			*PM Peak Hour*		
Land Use	*Size/Unit*	*Daily*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Utility (ITE 170)	per employee	4.11	0.57	0.13	0.70	0.11	0.65	0.76
Trip Generation								
Mid Valley Water Facility	416 employees	1,710	236	55	291	47	269	316
Transit Reduction (15% Daily/AM,PM)[1]		*-256*	*-35*	*-8*	*-44*	*-7*	*-40*	*-47*
Off-Peak Employee Trip Reduction (15% AM/PM)[2]		*0*	*-30*	*-7*	*-37*	*-6*	*-34*	*-40*
NET Trip Generation		**1,453**	**170**	**40**	**210**	**34**	**194**	**229**

Notes:
Trip rates from ITE 2017.
1 15% Transit Reduction assumed given the proposed Project's proximity to transit service including Van Nuys Amtrak/Metrolink station, Metro and LADOT Dash bus lines.
2 15% Off-Peak employee trip reduction as approximately 15% of all employees are anticipated to begin work before 7:00 am and leave work before 3:00 pm, and therefore commute outside of the AM and PM peak periods.

The Project site is located near the Van Nuys Amtrak/Metrolink station, which would provide convenient access to LADWP's Power Yard and connect to the Mid Valley Water Facility. Furthermore, seven different Metro and LADOT DASH bus lines operate in the area, providing convenient access to the facility as well.

Given the Project's proximity to high-capacity, frequent transit service (Van Nuys Amtrak/Metrolink station), a 25% transit reduction was taken from the vehicle commute trips that are estimated to be generated by the Project (as shown in Table 3-32), consistent with LADOT guidelines.

The Project is estimated to gross 1,710 weekday daily trips, including 291 (236 inbound and 55 outbound) weekday AM peak-hour trips and 316 (47 inbound and 269 outbound) weekday PM peak-hour trips.

Furthermore, approximately 15% of the employees at the site would arrive before 7:00 a.m. and depart before 3:00 p.m., which would be outside of the AM and PM peak-hour analysis periods. Due to the expected number of off-peak commuters, a 15% reduction was taken from the projected vehicle trips generated by the site.

Based on the adjusted total, the Project is estimated to generate a net total of 1,453 weekday daily trips including 210 (170 inbound and 40 outbound) weekday AM peak-hour trips and 229 weekday (34 inbound and 194 outbound) PM peak-hour trips.

Based on data provided by the City of Los Angeles, a list of nearby projects was compiled as part of the cumulative analysis. These projects were considered to potentially contribute measurable traffic volumes to the study area during the future analysis period. The total number of related projects included within this traffic

analysis was 13 projects, and are all located within an approximate 3-mile radius from the Project site. A list of cumulative projects and their location is provided in Appendix F.

Table 3-33 summarizes the LOS values for the Existing conditions (2018), Existing plus Project conditions (2018), Future 2023 conditions, and Future 2023 plus Project conditions at the study intersections.

Table 3-33. Peak Hour Impact Summary

	Intersection	LOS Method	Existing 2018 Traffic Conditions				Existing 2018 plus Project Traffic Conditions				Significant Impact? (Existing to Existing plus Project Comparison)		Future 2023 Traffic Conditions				Future 2023 plus Project Traffic Conditions				Significant Impact? (Future to Future plus Project Comparison)	
			AM Peak		PM Peak		AM Peak		PM Peak				AM Peak		PM Peak		AM Peak		PM Peak			
			V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM
1	Van Nuys Blvd./Saticoy St.	CMA	0.711	C	0.764	C	0.726	C	0.777	C	No	No	0.734	C	0.787	C	0.749	C	0.800	C	No	No
2	Van Nuys Blvd./ Valerio St.	CMA	0.562	A	0.614	B	0.563	A	0.614	B	No	No	0.583	A	0.635	B	0.583	A	0.636	B	No	No
3	Tyrone Ave./ Valerio St.	CMA	0.258	A	0.273	A	0.272	A	0.279	A	No	No	0.268	A	0.283	A	0.282	A	0.290	A	No	No
4	Hazeltine Ave./ Valerio St.	CMA	0.593	A	0.548	A	0.650	B	0.585	A	No	No	0.611	B	0.566	A	0.668	B	0.601	B	No	No
5	Woodman Ave./ Valerio St.	CMA	0.809	D	0.631	B	0.824	D	0.661	B	No	No	0.833	D	0.653	B	0.849	D	0.683	B	No	No
6	Van Nuys Blvd./ Sherman Way	CMA	0.660	B	0.763	C	0.666	B	0.770	C	No	No	0.699	B	0.797	C	0.705	C	0.803	D	No	No
7	Tyrone Ave./ Sherman Way	CMA	0.464	A	0.439	A	0.468	A	0.440	A	No	No	0.481	A	0.458	A	0.485	A	0.458	A	No	No
8	Hazeltine Ave./ Sherman Way	CMA	0.764	C	0.707	C	0.765	C	0.732	C	No	No	0.789	C	0.732	C	0.791	C	0.757	C	No	No
9	Woodman Ave./ Sherman Way	CMA	0.892	D	0.849	D	0.900	D	0.853	D	No	No	0.920	E	0.877	D	0.929	E	0.881	D	No	No

Source: Appendix F.
Notes: CMA = LADOT CMA Methodology; V/C = Volume-to-Capacity ratio; LOS = Level of Service; **BOLD** value indicates unsatisfactory LOS

As indicated in Table 3-33, based on the traffic forecasts, the level of service analysis, and significant impact thresholds set forth by LADOT, the Project would not create a significant traffic impact at any of the study intersections. Therefore, impacts would be less than significant, and no mitigation measures are required.

b) Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less-Than-Significant Impact. CEQA Guidelines Section 15064.3, subdivision (b), focuses on newly adopted criteria (vehicle miles traveled) adopted pursuant to SB 743 for determining the significance of transportation impacts. Pursuant to SB 743, the focus of transportation analysis changes from vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. As stated in CEQA Guidelines Section 15064.3(c), the provisions of Section 15064.3 shall apply prospectively. A lead agency may elect to be governed by the provision of Section 15064.3 immediately. The provisions must be implemented statewide by January 1, 2020.

The Office of Public Resources' regulatory text indicates that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by January 1, 2020. The traffic analysis in this section relies on LOS to characterize impacts since the MOU for traffic analysis for the proposed Project was approved by LADOT in November 2018, which was prior to approval of the revised CEQA Guidelines. Therefore, project traffic impacts are determined on a capacity-based level of service analysis for the proposed Project. Therefore, the Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).

Further, the proposed Project's location, access to other nearby destinations, pedestrian and bicycle connections, and access to bus and rail transit amenities would encourage non-auto modes of transportation such as walking, bicycling, carpooling, vanpool, transit, etc. The Project would generate 1,710 daily trips, 291 AM peak hour trips (236 inbound and 55 outbound), and 316 trips during the PM peak hour (47 inbound and 269 outbound). However, after applying a transit reduction due to the Project's proximity to transit service and an off-peak employee reduction to account for workers commuting outside the standard AM and PM peak hours, the Project would generate approximately 1,453 net daily trips, 210 AM peak hour net trips (170 inbound and 40 outbound), and 229 net trips during the PM peak hour (34 inbound and 194 outbound).

The proposed Project site would be accessible to pedestrians and cyclists via sidewalks and bike routes on the surrounding street system and is well served by transit. The majority of Van Nuys Boulevard and stretches of Sherman Way and Saticoy Street are identified as Pedestrian-Enhanced Districts within the study area by the City of Los Angeles Mobility Plan 2035. Van Nuys Boulevard and Sherman Way are identified as Tier 1 Protected Bicycle Lanes as part of the Bicycle Enhanced Network. The Project is located approximately 0.75 miles from the Van Nuys Amtrak/Metrolink station. All of these features of the proposed Project would reduce VMT.

c) Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project would not include the construction of any new off-site roads or the modification of any existing off-site roads, either for the purposes of long-term Project operations or to temporarily support Project construction. Construction and operation of the Project would include truck deliveries of materials, components, and supplies to the site. General truck traffic is allowed on Tyrone Avenue and Hazeltine Avenue and does not represent an incompatible use. These urban roads have good sight visibility and standard lane widths. Accordingly, no impact involving incompatible uses on roadways or hazardous roadway design features would occur.

d) Would the Project result in inadequate emergency access?

No Impact. The Project would not hinder emergency access in the area. No permanent or temporary road closures or modifications are proposed as part of the Project. All construction activities and staging would take place within the existing LADWP property. No incompatible uses on public roads would occur from either construction or operation of the Project. No impact would occur.

References

ITE (Institute of Transportation Engineers). 2017. *Trip Generation Manual*, 10th ed. Washington, DC: ITE.

LADOT (City of Los Angeles Department of Transportation). 2014. *Traffic Study Policies and Procedures*. August 2014. http://cityplanning.lacity.org/EIR/8150%20Sunset/References/4.J.%20Transportation%20and%20Circulation/TRAF.03_LADOT%20Policies%20and%20Procedures_2013.pdf.

3.18 Tribal Cultural Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 21074 as either a site, feature, place, cultural landscape, that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
i.) Listed or eligible for listing on the California Register of Historical Resources, or included in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or,	☐	☐	☐	☒
ii.) A resource determined by a lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 21074 as either a site, feature, place, cultural landscape, that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i.) Listed or eligible for listing on the California Register of Historical Resources, or included in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or,

No Impact. Based on the cultural resources records search, site survey, and contacts made to date, no archaeological resources have been identified within the Project site (Appendix C). Information received to date from Native American tribes indicates that the site does not include known elements of cultural tribal resources.

ii.) A resource determined by a lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant with Mitigation Incorporated. The Project is subject to compliance with AB 52, which requires consideration of impacts to tribal cultural resources as defined in California Public Resources Code 21074 as part of the CEQA process, and requires LADWP to notify any groups who have requested notification of the Project who are traditionally or culturally affiliated with the geographic area of the Project. LADWP notified six Native American individuals/organizations of the Project under AB 52. These contacts were initially identified by the Native American Heritage Commission as Native

American individuals/organizations who are traditionally or culturally affiliated with the geographic area of the Project. These contacts were notified of the Project in a good faith effort to provide an opportunity to consult on tribal cultural resources and other matters of concern. One of these contacts responded to the notification:

- Andrew Salas, Chairman, Gabrieleño Band of Mission Indians – Kizh Nation

Because AB 52 is a government-to-government process, all records of correspondence related to AB 52 notification and any subsequent consultation are on file with LADWP. Implementation of MM-CUL-1, as described under Section 3.5(a), would ensure that impacts to tribal cultural resources would be less than significant.

3.19 Utilities and Service Systems

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

b) Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects?

Water Treatment

Less-Than-Significant Impact. Potable water for the Project would be supplied by LADWP. Primary sources of water for the LADWP service area are the Los Angeles Aqueducts, local groundwater, and purchased imported water from Metropolitan Water District. An additional fourth source, recycled water, is increasingly becoming a larger source in the overall supply portfolio. Two of the supply sources, water from the Los Angeles Aqueducts and water purchased from Metropolitan Water District, are classified as imported as they are obtained from outside LADWP's service area. Metropolitan Water District is the regional wholesale water agency, importing water from the Bay-Delta via the State Water Project, the Colorado River via the Colorado River Aqueduct, and from Water Transfers, Storage and Exchange Programs. Groundwater is local and obtained within the MWD service area. Historical supply sources are increasingly under multiple constraints including potential impacts of climate change, groundwater contamination, and reallocation of water for environmental concerns. To mitigate these impacts on supply sources, LADWP has renewed its focus on protecting and rehabilitating its local groundwater basins, including expanding the remediation efforts for the San Fernando Basin, increased stormwater capture, and indirect potable reuse. These investments will augment the City's groundwater and help ensure that basin water levels remain sustainable for the foreseeable future. (LADWP 2015).

As discussed in Section 3.10, Hydrology and Water Quality, the LADWP UWMP provides multiple-dry-year supply and demand analysis for LADWP's domestic water service area. The UWMP indicates that MWD will continue to provide 100 percent reliability through 2040 for its member agencies during average, single dry, and multiple dry year conditions. For each of these scenarios there is a projected surplus of supply in every forecast year. As stated in the UWMP and summarized in Table 3-23, Multiple Dry Year MWD Supply Capability and Projected Demands (AFY), the Project's water demand would represent a nominal percentage of the LADWP's current and future supplies, and overall, the LADWP has the water supplies to adequately serve the Project. Therefore, the demand associated with operation of the Project would be within the capacity of existing water treatment facilities; and impacts associated with the construction of new water treatment facilities would be less than significant

Wastewater Treatment

Less-Than-Significant Impact. During operation, the Project would produce wastewater that would be disposed of in the City's sewer collection system, operated and maintained by Los Angeles Department of Public Works Bureau of Sanitation (LASAN). Wastewater collected in the area is conveyed by interceptor lines and ultimately treated at City water reclamation plants, specifically, the Los Angeles–Glendale Water Reclamation

Plant and the Hyperion Water Treatment Plant. The Los Angeles–Glendale Water Reclamation Plant and the Hyperion Water Treatment Plant treat a maximum of 20 million gallons a day (MGD) and 450 MGD, respectively (LADWP 2015).

Indoor water consumption data associated with operation of the Project were provided in the CalEEMod modeling outputs included as Appendix A. The Project could consume approximately 102 million gallons of water per year, or 279,452 gallons per day. CalEEMod does not calculate wastewater generation; however, indoor water consumption conservatively represents wastewater generation in this analysis. The Project's daily wastewater generation represents a nominal percentage (0.06%) of the cumulative capacity of the Los Angeles–Glendale Water Reclamation Plant and the Hyperion Water Treatment Plant (470 MGD total).

LASAN is the National Pollutant Discharge Elimination System permit holder for the Los Angeles–Glendale Water Reclamation Plant and the Hyperion Water Treatment Plant, and it is responsible for compliance with the wastewater treatment requirements in the National Pollutant Discharge Elimination System permit, Permit No. CA0053953 (Los Angeles RWQCB 2012) and in the National Pollutant Discharge Elimination System permit, Permit No. CA0109991 (Los Angeles RWQCB 2016). Upon connection to wastewater facilities, the Project would be in compliance with the wastewater treatment requirements of the Los Angeles RWQCB. Therefore, the proposed Project would not exceed the wastewater treatment requirements of the applicable RWQCB, and impacts would be less than significant.

Thus, the proposed Project's wastewater generation would represent a nominal percentage of Los Angeles–Glendale Water Reclamation Plant and the Hyperion Water Treatment Plant's permitted treatment capacity, and no additional wastewater treatment facilities would be required as a result of the Project's wastewater generation. Therefore, impacts associated with wastewater treatment facilities would be less than significant.

Electric Power, Natural Gas, and Telecommunication Facilities

Less-Than-Significant Impact. Electric power is currently provided to the site by Southern California Edison. Natural gas is currently provided to the site by SoCalGas. Telecommunication for the site is currently provided by AT&T, which provides telephone and internet services. Project utility plans shall comply with the City's Fire Code, the latest version of the California Building Code and the City of Los Angeles Building Code; and be approved by the Los Angeles Department of Building and Safety. Point of connection to the proposed Project would be submitted to Southern California Edison, SoCalGas, and AT&T prior to construction of the proposed development. Upgrades would be confined to the lateral connections to the Project site and not any centralized facilities. Upgrades would likely be completed by either trenchless technology or completion of open trenching, to the depth of the underground utilities. The construction of the laterals would be temporary and would be subject to all applicable regulatory requirements. Impacts associated with upgrades of electric, natural gas, and telecommunication lateral connections to the Project site would be **less than significant**.

b) Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less-Than-Significant Impact. As stated in Section 3.19(a), potable water for the Project would be supplied by LADWP. In the UWMP, LADWP estimated that industrial uses within its water service area would demand an average of 131 gallons per day per employee in 2020, 123 gallons per day per employee in 2025, and 121 gallons per day per employee in 2030. Thus, it is expected that, as an industrial use, the proposed Project could demand approximately 59,625 gallons per day (66.79 AFY) of water in 2020. This would be a nominal percentage of LADWP's water demand forecast for all industrial uses in the service area (20,726 AFY) (LADWP 2015). As stated in the UWMP and summarized in Table 3-23, the Project's water demand would represent a nominal percentage of the LADWP's current and future supplies, and overall, the LADWP has the water supplies to adequately serve the Project. Therefore, impacts relative to water supplies would be less than significant.

c) Would the Project result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Less-Than-Significant Impact. As previously addressed in Section 3.19(a), the Project would produce approximately 279,452 gallons per day of wastewater. Wastewater generated within the City is treated at the Los Angeles–Glendale Water Reclamation Plant and the Hyperion Water Treatment Plant, which have a combined treatment capacity of 470 MGD. Thus, the proposed Project's wastewater generation would represent a nominal percentage of Los Angeles–Glendale Water Reclamation Plant and the Hyperion Water Treatment Plant's permitted treatment capacity, and no additional wastewater treatment facilities would be required as a result of the Project's wastewater generation. Therefore, impacts associated with wastewater treatment facilities would be less than significant.

d) Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-Than-Significant Impact. Construction activities would generate construction waste, such as equipment packaging, construction scrap, and debris. In accordance with the City's Construction and Demolition Debris Recycling Ordinance, construction would incorporate source reduction techniques and recycling measures and would maintain a recycling program to divert waste. These measures would minimize the amount of construction debris generated by the Project that would need to be disposed of in an area landfill. Any non-recyclable and hazardous construction waste generated would be disposed of at a landfill approved to accept such materials.

Several landfills throughout the County of Los Angeles serve the City, as listed in Table 3-34. The total permitted throughput for all landfills is 28,816 tons per day, and approximately 149.80 million tons of capacity remain (County of Los Angeles 2017).

Table 3-34. Existing Landfills

Landfill	Location	Estimated Closing Year	Maximum Permitted Daily Load (tons/day)	Current Remaining Capacity (million tons)
Antelope Valley Landfill	Palmdale	2039	3,600	12.39
Calabasas Landfill	Unincorporated Area	2029	3,500	5.60
Chiquita Canyon Landfill	Unincorporated Area	2047	6,616	59.10
Lancaster Landfill	Unincorporated Area	2041	3,000	10.27
Sunshine Canyon Landfill	Los Angeles/ Unincorporated Area	2055	12,100	68.04
		Total	**28,816**	**149.80**

Source: County of Los Angeles 2017.

Solid waste generation data associated with operation of the Project were provided in the CalEEMod modeling outputs included as Appendix A. The Project could produce approximately 318.53 tons of solid waste per year, or 0.87 ton per day. Note that these estimates represent a conservative, "worst-case" scenario and do not include credit for the diversion requirements set forth by AB 939. Nonetheless, the Project's estimated waste generation (without diversion) equates to a nominal percentage of the County landfills serving the City's permitted throughput of 26,400 tons per day. Therefore, the Project would not generate solid waste in excess of applicable standards or in excess of the capacity of local infrastructure; impacts associated with landfill capacity would be **less than significant**.

g) Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. In accordance with standards and as required by regulation and law, LADWP would comply with federal, state, and local solid waste diversion, reduction, and recycling mandates. No impact would occur.

References

County of Los Angeles. 2017. *Countywide Integrated Waste Management Plan 2017 Annual Report*. April 2019. https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=6530&hp=yes&type=PDF.

LADWP (Los Angeles Department of Water and Power). 2015. *Mid Valley Water Facility Conceptual Design Report*. Revision D. Task Order ESC-33. Prepared by CDM Smith. August 28, 2015.

Los Angeles RWQCB (Regional Water Quality Control Board). 2012. Tentative Amended Waste Discharge Requirements and NPDES Permit for the City of Los Angeles, Los Angeles–Glendale Water Reclamation Plant (NPDES No. CA0053953). May 1, 2012. http://www.swrcb.ca.gov/rwqcb4/board_decisions/tentative_orders/individual/npdes/losangeles_glendale/2012/LAGWRP%20CA0053953%20(F.Coliform%20Revision)%20Mailout%20Letter%205-01-12.pdf.

Los Angeles RWQCB. 2016. Waste Discharge Requirements and NPDES Permit for the City of Los Angeles, Hyperion Treatment Plant Discharge to the Pacific Ocean (NPDES No. CA0053953). August 30, 2016. http://www.swrcb.ca.gov/rwqcb4/board_decisions/tentative_orders/individual/npdes/hyperion/2016/TentativeHyperionNPDESCI-149208-30-16.pdf.

3.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

a) Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to CALFIRE's Los Angeles County Fire Hazard Severity Zone Map, the Project site is designated as a Non-Very High Fire Severity Zone. Furthermore, the *City of Los Angeles General Plan* Safety

Element states that no wildland fire hazard areas occur within the Project site or near the Project site (City of Los Angeles 1996). As such, no impact would occur.

b) Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The Project is not located within or near a state responsibility area classified as a very high fire severity zone. As such, no impact would occur.

c) Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The Project is not located within or near a state responsibility area classified as a very high fire severity zone. As such, no impact would occur.

d) Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The Project is not located within or near a state responsibility area classified as a very high fire severity zone. As such, no impact would occur.

References

City of Los Angeles. 1996. "Safety Element." In *City of Los Angeles General Plan*. Adopted November 26, 1996. http://planning.lacity.org/GP_elements.html.

3.21 Mandatory Findings of Significance

Does the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Does the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

a) Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation Incorporated. According to the CNDDB, four special-status wildlife species have been identified within a 2-mile radius of the Project site. However, none of these species are state- or federally listed, nor are there any documented occurrences of special-status species within the Project site itself (CDFW 2018). Additionally, no special-status plants are anticipated to occur within the Project site. The Project site is disturbed and subject to routine disturbances associated with disking, mowing, and other vegetation removal activities. There are also no documented occurrences of special-status plant species within a 2-mile radius of the Project site (CDFW 2018).

Nevertheless, impacts to nesting bird and raptor species would be considered potentially significant if implementation of the proposed Project would require removal or substantial trimming of healthy mature trees with active nests during the bird nesting season. Thus, **MM-BIO-1** is set forth to ensure that nesting birds would not be impacted by the proposed Project activities; and thus, impacts would be less than significant with mitigation incorporated.

As per the LADWP Conceptual Design Report (2015), California sycamore is the only native tree protected under the City of Los Angeles Protected Tree Ordinance that occurs within the proposed Project site. The single, isolated California sycamore tree is proposed for removal. As such, the proposed Project would result in direct impacts to a tree protected under the City of Los Angeles Protected Tree Ordinance. **MM-BIO-2**, which requires a tree inventory and obtaining a permit for tree removal, is set forth to minimize impacts to

protected trees. Impacts associated with local policies or ordinances protecting biological resources would therefore be less than significant with mitigation incorporated.

As described in Section 3.5 of this MND, the Project site does not support any important examples of major periods in California history. While there are no known important examples of California prehistory on the Project site, there is the potential for previously unknown resources to be encountered on the site during the minor ground disturbing activities associated with construction of the Project. Implementation of **MM-CUL-1**, would ensure that such resources would be protected, in the event that they were unexpectedly discovered on the Project site. Therefore, impacts to California prehistory would be less than significant with implementation of **MM-CUL-1**.

b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant with Mitigation Incorporated. As determined in the analysis presented in this MND, the proposed Project would not result in significant impacts in any resource areas upon implementation of mitigation measures; therefore, there would be no cumulatively considerable effects.

c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less-Than-Significant Impact with Mitigation Incorporated. The analysis presented in this document does not identify significant adverse impacts on human beings upon implementation of mitigation measures. The impacts were characterized as absent or less than significant. Therefore, the Project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

References

CDFW (California Department of Fish and Wildlife). 2018. List of California Natural Diversity Database (CNDDB) species for nine quads (centered on Van Nuys Quad). Quick Viewer. Accessed January 2019. http://dfg.ca.gov/biogeodata/cnddb/.

LADWP (Los Angeles Department of Water and Power). 2015. *Mid Valley Water Facility Conceptual Design Report*. Revision D. Task Order ESC-33. Prepared by CDM Smith. August 28, 2015.

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APPENDIX A

Air Quality and GHG Calculations, CO Hotspots Analysis CALINE4 Output, and Health Risk Assessment

Mid Valley Water Facility Unmitigated HRA

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	69.00	1000sqft	1.58	69,000.00	0
General Office Building	3.00	1000sqft	0.07	3,000.00	0
Research & Development	19.00	1000sqft	0.44	19,000.00	0
General Light Industry	116.00	1000sqft	2.66	116,000.00	0
General Light Industry	8.00	1000sqft	0.18	8,000.00	0
Unrefrigerated Warehouse-No Rail	72.00	1000sqft	1.65	72,000.00	0
Enclosed Parking Structure	216.00	1000sqft	4.96	216,000.00	0
Other Asphalt Surfaces	181.00	1000sqft	4.16	181,000.00	0
Other Asphalt Surfaces	12.00	1000sqft	0.28	12,000.00	0
Automobile Care Center	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	758.16	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Annual

Project Characteristics - Los Angeles Department of Water and Power adjusted for 43.2% RPS in 2026. HRA

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Grading - Data provided by applicant.

Vehicle Trips - Data provided by Traffic Report. HRA onsite vehicle travel assumed 0.19 miles (1,000 feet).

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Operational Off-Road Equipment - Data provided by applicant.

Stationary Sources - Emergency Generators and Fire Pumps -

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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1041	1.3174	0.6631	1.9100e-003	0.3428	0.0492	0.3921	0.1630	0.0453	0.2084	0.0000	176.3897	176.3897	0.0364	0.0000	177.3001
2021	0.8245	8.2749	6.4427	0.0153	0.5367	0.3341	0.8708	0.2344	0.3143	0.5487	0.0000	1,368.8108	1,368.8108	0.2494	0.0000	1,375.0456
2022	2.3690	8.1161	7.9973	0.0165	0.2391	0.3525	0.5916	0.0644	0.3347	0.3991	0.0000	1,440.3464	1,440.3464	0.2493	0.0000	1,446.5797
2023	0.0330	0.3645	0.2923	8.1000e-004	0.0295	0.0135	0.0430	7.4700e-003	0.0126	0.0201	0.0000	74.2762	74.2762	0.0142	0.0000	74.6299
Maximum	**2.3690**	**8.2749**	**7.9973**	**0.0165**	**0.5367**	**0.3525**	**0.8708**	**0.2344**	**0.3347**	**0.5487**	**0.0000**	**1,440.3464**	**1,440.3464**	**0.2494**	**0.0000**	**1,446.5797**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1041	1.3174	0.6631	1.9100e-003	0.1827	0.0492	0.2320	0.0760	0.0453	0.1213	0.0000	176.3896	176.3896	0.0364	0.0000	177.3000
2021	0.8245	8.2749	6.4427	0.0153	0.3380	0.3341	0.6721	0.1261	0.3143	0.4404	0.0000	1,368.8097	1,368.8097	0.2494	0.0000	1,375.0446
2022	2.3690	8.1161	7.9973	0.0165	0.2391	0.3525	0.5916	0.0644	0.3347	0.3991	0.0000	1,440.3452	1,440.3452	0.2493	0.0000	1,446.5784
2023	0.0330	0.3645	0.2923	8.1000e-004	0.0295	0.0135	0.0430	7.4700e-003	0.0126	0.0201	0.0000	74.2761	74.2761	0.0142	0.0000	74.6298
Maximum	**2.3690**	**8.2749**	**7.9973**	**0.0165**	**0.3380**	**0.3525**	**0.6721**	**0.1261**	**0.3347**	**0.4404**	**0.0000**	**1,440.3452**	**1,440.3452**	**0.2494**	**0.0000**	**1,446.5784**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**31.25**	**0.00**	**18.91**	**41.62**	**0.00**	**16.61**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-1-2020	1-31-2021	2.2173	2.2173
2	2-1-2021	4-30-2021	2.3670	2.3670
3	5-1-2021	7-31-2021	1.2257	1.2257
4	8-1-2021	10-31-2021	2.3691	2.3691
5	11-1-2021	1-31-2022	3.2968	3.2968
6	2-1-2022	4-30-2022	2.9907	2.9907
7	5-1-2022	7-31-2022	2.6197	2.6197
8	8-1-2022	10-31-2022	2.8954	2.8954

9	**11-1-2022**	**1-31-2023**	1.3901	1.3901
		Highest	3.2968	3.2968

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2397	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Energy	0.0192	0.1747	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	1,609.7555	1,609.7555	0.0374	0.0110	1,613.9600
Mobile	0.1418	0.6365	0.6354	1.1200e-003	0.0273	1.2600e-003	0.0286	7.3200e-003	1.1700e-003	8.4900e-003	0.0000	106.3183	106.3183	0.0103	0.0000	106.5765
Offroad	0.0565	0.5321	0.7369	9.9000e-004		0.0285	0.0285		0.0262	0.0262	0.0000	87.2894	87.2894	0.0282	0.0000	87.9951
Waste						0.0000	0.0000		0.0000	0.0000	65.8137	0.0000	65.8137	3.8895	0.0000	163.0507
Water						0.0000	0.0000		0.0000	0.0000	21.6719	337.8355	359.5073	2.2339	0.0543	431.5491
Total	**1.4573**	**1.3433**	**1.5281**	**3.1600e-003**	**0.0273**	**0.0431**	**0.0704**	**7.3200e-003**	**0.0407**	**0.0480**	**87.4856**	**2,141.2161**	**2,228.7017**	**6.1994**	**0.0653**	**2,403.1501**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2397	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Energy	0.0192	0.1747	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	1,609.7555	1,609.7555	0.0374	0.0110	1,613.9600
Mobile	0.1418	0.6365	0.6354	1.1200e-003	0.0273	1.2600e-003	0.0286	7.3200e-003	1.1700e-003	8.4900e-003	0.0000	106.3183	106.3183	0.0103	0.0000	106.5765
Offroad	0.0565	0.5321	0.7369	9.9000e-004		0.0285	0.0285		0.0262	0.0262	0.0000	87.2894	87.2894	0.0282	0.0000	87.9951
Waste						0.0000	0.0000		0.0000	0.0000	65.8137	0.0000	65.8137	3.8895	0.0000	163.0507
Water						0.0000	0.0000		0.0000	0.0000	21.6719	337.8355	359.5073	2.2339	0.0543	431.5491
Total	**1.4573**	**1.3433**	**1.5281**	**3.1600e-003**	**0.0273**	**0.0431**	**0.0704**	**7.3200e-003**	**0.0407**	**0.0480**	**87.4856**	**2,141.2161**	**2,228.7017**	**6.1994**	**0.0653**	**2,403.1501**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2020	11/30/2020	5	21	
2	Grading	Grading	12/1/2020	5/31/2021	5	130	
3	Trenching & Underground Utilities	Trenching	7/1/2021	7/30/2021	5	22	
4	Perimeter Walls Construction	Building Construction	7/1/2021	7/30/2021	5	22	
5	Paving & Site Infrastructure	Paving	8/1/2021	8/21/2021	5	15	
6	Office Building & Staff Parking	Building Construction	9/1/2021	5/31/2022	5	195	
7	Water Distribution Shop and Maintenance Building	Building Construction	9/1/2021	7/30/2022	5	238	
8	Department Fleet Vehicles Parking	Building Construction	9/1/2021	8/31/2022	5	261	
9	Supply Chain Services Warehouse	Building Construction	9/1/2021	8/31/2022	5	261	
10	Fleet Maintenance Building and CNG Dispensing Area	Building Construction	9/1/2021	7/30/2022	5	238	
11	Street Improvement of Hazeltine Avenue	Building Construction	9/1/2022	1/30/2023	5	108	
12	Architectural Coating	Architectural Coating	9/1/2022	10/30/2022	5	42	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.57

Acres of Paving: 9.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 444,000; Non-Residential Outdoor: 148,000; Striped Parking Area: 24,540 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Perimeter Walls Construction	Bore/Drill Rigs	1	8.00	221	0.50
Perimeter Walls Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Perimeter Walls Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Perimeter Walls Construction	Cranes	1	7.00	231	0.29
Perimeter Walls Construction	Forklifts	3	8.00	89	0.20
Perimeter Walls Construction	Generator Sets	1	8.00	84	0.74
Perimeter Walls Construction	Paving Equipment	1	8.00	132	0.36
Perimeter Walls Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Perimeter Walls Construction	Welders	1	8.00	46	0.45
Paving & Site Infrastructure	Pavers	2	8.00	130	0.42
Paving & Site Infrastructure	Paving Equipment	2	8.00	132	0.36
Paving & Site Infrastructure	Rollers	2	8.00	80	0.38
Street Improvement of Hazeltine Avenue	Cranes	1	7.00	231	0.29
Street Improvement of Hazeltine Avenue	Excavators	1	8.00	158	0.38
Street Improvement of Hazeltine Avenue	Forklifts	3	8.00	89	0.20
Street Improvement of Hazeltine Avenue	Generator Sets	1	8.00	84	0.74
Street Improvement of Hazeltine Avenue	Graders	1	8.00	187	0.41
Street Improvement of Hazeltine Avenue	Rubber Tired Dozers	1	8.00	247	0.40
Street Improvement of Hazeltine Avenue	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Street Improvement of Hazeltine Avenue	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trenching & Underground Utilities	Plate Compactors	1	8.00	8	0.43
Trenching & Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching & Underground Utilities	Trenchers	1	8.00	78	0.50
Office Building & Staff Parking	Cranes	1	4.00	231	0.29
Office Building & Staff Parking	Forklifts	2	6.00	89	0.20
Office Building & Staff Parking	Forklifts	2	7.00	89	0.20
Office Building & Staff Parking	Generator Sets	1	8.00	84	0.74
Office Building & Staff Parking	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Office Building & Staff Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Office Building & Staff Parking	Welders	3	8.00	46	0.45
Water Distribution Shop and Maintenance Building	Cranes	1	8.00	231	0.29
Water Distribution Shop and Maintenance Building	Forklifts	2	7.00	89	0.20
Water Distribution Shop and Maintenance Building	Generator Sets	1	8.00	84	0.74
Water Distribution Shop and Maintenance Building	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Water Distribution Shop and Maintenance Building	Welders	3	8.00	46	0.45
Department Fleet Vehicles Parking	Cranes	1	8.00	231	0.29
Department Fleet Vehicles Parking	Forklifts	2	7.00	89	0.20
Department Fleet Vehicles Parking	Generator Sets	1	8.00	84	0.74
Department Fleet Vehicles Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Department Fleet Vehicles Parking	Welders	3	8.00	46	0.45
Supply Chain Services Warehouse	Cranes	1	6.00	231	0.29
Supply Chain Services Warehouse	Forklifts	1	6.00	89	0.20
Supply Chain Services Warehouse	Generator Sets	1	8.00	84	0.74
Supply Chain Services Warehouse	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Supply Chain Services Warehouse	Welders	3	8.00	46	0.45
Fleet Maintenance Building and CNG Dispensing Area	Cranes	1	4.00	231	0.29

Fleet Maintenance Building and CNG Dispensing Area	Forklifts	2	6.00	89	0.20
Fleet Maintenance Building and CNG Dispensing Area	Generator Sets	1	8.00	84	0.74
Fleet Maintenance Building and CNG Dispensing Area	Pavers	1	6.00	130	0.42
Fleet Maintenance Building and CNG Dispensing Area	Paving Equipment	1	8.00	132	0.36
Fleet Maintenance Building and CNG Dispensing Area	Rollers	1	7.00	80	0.38
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	16.00	2.00	11,118.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	6.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Infrastructure	6	16.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Street Improvement of Hazeltine Avenue	12	16.00	2.00	4,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	44.00	22.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching & Underground Utilities	4	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Office Building & Staff Parking	12	18.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Water Distribution Shop and Maintenanc	8	48.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Department Fleet Vehicles Parking	8	68.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Supply Chain Services Warehouse	7	28.00	16.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fleet Maintenance Building and CNG Dis	11	16.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1897	0.0000	0.1897	0.1043	0.0000	0.1043	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0428	0.4454	0.2259	4.0000e-004		0.0231	0.0231		0.0212	0.0212	0.0000	35.1022	35.1022	0.0114	0.0000	35.3860
Total	**0.0428**	**0.4454**	**0.2259**	**4.0000e-004**	**0.1897**	**0.0231**	**0.2128**	**0.1043**	**0.0212**	**0.1255**	**0.0000**	**35.1022**	**35.1022**	**0.0114**	**0.0000**	**35.3860**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.2800e-003	6.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5217	0.5217	3.0000e-005	0.0000	0.5225
Worker	8.7000e-004	7.0000e-004	7.7800e-003	2.0000e-005	2.0700e-003	2.0000e-005	2.0900e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.9304	1.9304	6.0000e-005	0.0000	1.9319
Total	**9.5000e-004**	**2.9800e-003**	**8.4000e-003**	**3.0000e-005**	**2.2000e-003**	**3.0000e-005**	**2.2300e-003**	**5.9000e-004**	**3.0000e-005**	**6.2000e-004**	**0.0000**	**2.4521**	**2.4521**	**9.0000e-005**	**0.0000**	**2.4544**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0740	0.0000	0.0740	0.0407	0.0000	0.0407	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0428	0.4454	0.2259	4.0000e-004		0.0231	0.0231		0.0212	0.0212	0.0000	35.1022	35.1022	0.0114	0.0000	35.3860
Total	**0.0428**	**0.4454**	**0.2259**	**4.0000e-004**	**0.0740**	**0.0231**	**0.0971**	**0.0407**	**0.0212**	**0.0619**	**0.0000**	**35.1022**	**35.1022**	**0.0114**	**0.0000**	**35.3860**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.2800e-003	6.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5217	0.5217	3.0000e-005	0.0000	0.5225
Worker	8.7000e-004	7.0000e-004	7.7800e-003	2.0000e-005	2.0700e-003	2.0000e-005	2.0900e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.9304	1.9304	6.0000e-005	0.0000	1.9319
Total	**9.5000e-004**	**2.9800e-003**	**8.4000e-003**	**3.0000e-005**	**2.2000e-003**	**3.0000e-005**	**2.2300e-003**	**5.9000e-004**	**3.0000e-005**	**6.2000e-004**	**0.0000**	**2.4521**	**2.4521**	**9.0000e-005**	**0.0000**	**2.4544**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0727	0.0000	0.0727	0.0384	0.0000	0.0384	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0508	0.5737	0.3562	6.9000e-004		0.0252	0.0252		0.0232	0.0232	0.0000	60.5772	60.5772	0.0196	0.0000	61.0670
Total	**0.0508**	**0.5737**	**0.3562**	**6.9000e-004**	**0.0727**	**0.0252**	**0.0979**	**0.0384**	**0.0232**	**0.0616**	**0.0000**	**60.5772**	**60.5772**	**0.0196**	**0.0000**	**61.0670**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.6800e-003	0.2921	0.0644	7.7000e-004	0.0760	9.1000e-004	0.0769	0.0192	8.7000e-004	0.0200	0.0000	75.8076	75.8076	5.2800e-003	0.0000	75.9396
Vendor	8.0000e-005	2.4900e-003	6.7000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5714	0.5714	4.0000e-005	0.0000	0.5723
Worker	8.5000e-004	6.8000e-004	7.5700e-003	2.0000e-005	2.0200e-003	2.0000e-005	2.0300e-003	5.4000e-004	2.0000e-005	5.5000e-004	0.0000	1.8793	1.8793	6.0000e-005	0.0000	1.8808
Total	**9.6100e-003**	**0.2952**	**0.0726**	**8.0000e-004**	**0.0782**	**9.4000e-004**	**0.0791**	**0.0197**	**9.0000e-004**	**0.0206**	**0.0000**	**78.2583**	**78.2583**	**5.3800e-003**	**0.0000**	**78.3927**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0284	0.0000	0.0284	0.0150	0.0000	0.0150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0508	0.5737	0.3562	6.9000e-004		0.0252	0.0252		0.0232	0.0232	0.0000	60.5771	60.5771	0.0196	0.0000	61.0669
Total	**0.0508**	**0.5737**	**0.3562**	**6.9000e-004**	**0.0284**	**0.0252**	**0.0536**	**0.0150**	**0.0232**	**0.0382**	**0.0000**	**60.5771**	**60.5771**	**0.0196**	**0.0000**	**61.0669**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.6800e-003	0.2921	0.0644	7.7000e-004	0.0760	9.1000e-004	0.0769	0.0192	8.7000e-004	0.0200	0.0000	75.8076	75.8076	5.2800e-003	0.0000	75.9396
Vendor	8.0000e-005	2.4900e-003	6.7000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5714	0.5714	4.0000e-005	0.0000	0.5723
Worker	8.5000e-004	6.8000e-004	7.5700e-003	2.0000e-005	2.0200e-003	2.0000e-005	2.0300e-003	5.4000e-004	2.0000e-005	5.5000e-004	0.0000	1.8793	1.8793	6.0000e-005	0.0000	1.8808
Total	**9.6100e-003**	**0.2952**	**0.0726**	**8.0000e-004**	**0.0782**	**9.4000e-004**	**0.0791**	**0.0197**	**9.0000e-004**	**0.0206**	**0.0000**	**78.2583**	**78.2583**	**5.3800e-003**	**0.0000**	**78.3927**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3257	0.0000	0.3257	0.1775	0.0000	0.1775	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2220	2.4686	1.5979	3.2100e-003		0.1066	0.1066		0.0981	0.0981	0.0000	281.8756	281.8756	0.0912	0.0000	284.1548
Total	**0.2220**	**2.4686**	**1.5979**	**3.2100e-003**	**0.3257**	**0.1066**	**0.4323**	**0.1775**	**0.0981**	**0.2756**	**0.0000**	**281.8756**	**281.8756**	**0.0912**	**0.0000**	**284.1548**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0385	1.2666	0.2953	3.5400e-003	0.0914	3.7900e-003	0.0951	0.0247	3.6300e-003	0.0283	0.0000	348.7875	348.7875	0.0242	0.0000	349.3927
Vendor	3.3000e-004	0.0106	2.8600e-003	3.0000e-005	6.7000e-004	2.0000e-005	7.0000e-004	1.9000e-004	2.0000e-005	2.2000e-004	0.0000	2.6375	2.6375	1.6000e-004	0.0000	2.6416
Worker	3.6800e-003	2.8700e-003	0.0324	9.0000e-005	9.3800e-003	8.0000e-005	9.4600e-003	2.4900e-003	7.0000e-005	2.5600e-003	0.0000	8.4651	8.4651	2.5000e-004	0.0000	8.4714
Total	**0.0426**	**1.2800**	**0.3306**	**3.6600e-003**	**0.1014**	**3.8900e-003**	**0.1053**	**0.0274**	**3.7200e-003**	**0.0311**	**0.0000**	**359.8901**	**359.8901**	**0.0246**	**0.0000**	**360.5056**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1270	0.0000	0.1270	0.0692	0.0000	0.0692	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2220	2.4686	1.5979	3.2100e-003		0.1066	0.1066		0.0981	0.0981	0.0000	281.8753	281.8753	0.0912	0.0000	284.1544
Total	**0.2220**	**2.4686**	**1.5979**	**3.2100e-003**	**0.1270**	**0.1066**	**0.2336**	**0.0692**	**0.0981**	**0.1673**	**0.0000**	**281.8753**	**281.8753**	**0.0912**	**0.0000**	**284.1544**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0385	1.2666	0.2953	3.5400e-003	0.0914	3.7900e-003	0.0951	0.0247	3.6300e-003	0.0283	0.0000	348.7875	348.7875	0.0242	0.0000	349.3927
Vendor	3.3000e-004	0.0106	2.8600e-003	3.0000e-005	6.7000e-004	2.0000e-005	7.0000e-004	1.9000e-004	2.0000e-005	2.2000e-004	0.0000	2.6375	2.6375	1.6000e-004	0.0000	2.6416
Worker	3.6800e-003	2.8700e-003	0.0324	9.0000e-005	9.3800e-003	8.0000e-005	9.4600e-003	2.4900e-003	7.0000e-005	2.5600e-003	0.0000	8.4651	8.4651	2.5000e-004	0.0000	8.4714
Total	**0.0426**	**1.2800**	**0.3306**	**3.6600e-003**	**0.1014**	**3.8900e-003**	**0.1053**	**0.0274**	**3.7200e-003**	**0.0311**	**0.0000**	**359.8901**	**359.8901**	**0.0246**	**0.0000**	**360.5056**

3.4 Trenching & Underground Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7700e-003	0.0831	0.0807	1.1000e-004		5.3700e-003	5.3700e-003		4.9500e-003	4.9500e-003	0.0000	9.6118	9.6118	3.0300e-003	0.0000	9.6877
Total	**8.7700e-003**	**0.0831**	**0.0807**	**1.1000e-004**		**5.3700e-003**	**5.3700e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**9.6118**	**9.6118**	**3.0300e-003**	**0.0000**	**9.6877**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	2.1700e-003	5.9000e-004	1.0000e-005	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5423	0.5423	3.0000e-005	0.0000	0.5431
Worker	4.7000e-004	3.7000e-004	4.1600e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0878	1.0878	3.0000e-005	0.0000	1.0886
Total	**5.4000e-004**	**2.5400e-003**	**4.7500e-003**	**2.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.6301**	**1.6301**	**6.0000e-005**	**0.0000**	**1.6317**

3.4 Trenching & Underground Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7700e-003	0.0831	0.0807	1.1000e-004		5.3700e-003	5.3700e-003		4.9500e-003	4.9500e-003	0.0000	9.6118	9.6118	3.0300e-003	0.0000	9.6876
Total	**8.7700e-003**	**0.0831**	**0.0807**	**1.1000e-004**		**5.3700e-003**	**5.3700e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**9.6118**	**9.6118**	**3.0300e-003**	**0.0000**	**9.6876**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	2.1700e-003	5.9000e-004	1.0000e-005	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5423	0.5423	3.0000e-005	0.0000	0.5431
Worker	4.7000e-004	3.7000e-004	4.1600e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0878	1.0878	3.0000e-005	0.0000	1.0886
Total	**5.4000e-004**	**2.5400e-003**	**4.7500e-003**	**2.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.6301**	**1.6301**	**6.0000e-005**	**0.0000**	**1.6317**

3.5 Perimeter Walls Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0307	0.2838	0.2769	5.2000e-004		0.0147	0.0147		0.0139	0.0139	0.0000	44.9362	44.9362	0.0108	0.0000	45.2052
Total	**0.0307**	**0.2838**	**0.2769**	**5.2000e-004**		**0.0147**	**0.0147**		**0.0139**	**0.0139**	**0.0000**	**44.9362**	**44.9362**	**0.0108**	**0.0000**	**45.2052**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	4.3400e-003	1.1800e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.8000e-004	0.0000	1.0846	1.0846	7.0000e-005	0.0000	1.0863
Worker	2.8000e-004	2.2000e-004	2.5000e-003	1.0000e-005	1.9800e-003	1.0000e-005	1.9800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	0.6527	0.6527	2.0000e-005	0.0000	0.6532
Total	**4.2000e-004**	**4.5600e-003**	**3.6800e-003**	**2.0000e-005**	**2.6500e-003**	**2.0000e-005**	**2.6600e-003**	**6.8000e-004**	**2.0000e-005**	**6.9000e-004**	**0.0000**	**1.7373**	**1.7373**	**9.0000e-005**	**0.0000**	**1.7394**

3.5 Perimeter Walls Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0307	0.2838	0.2769	5.2000e-004		0.0147	0.0147		0.0139	0.0139	0.0000	44.9362	44.9362	0.0108	0.0000	45.2052
Total	**0.0307**	**0.2838**	**0.2769**	**5.2000e-004**		**0.0147**	**0.0147**		**0.0139**	**0.0139**	**0.0000**	**44.9362**	**44.9362**	**0.0108**	**0.0000**	**45.2052**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	4.3400e-003	1.1800e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.8000e-004	0.0000	1.0846	1.0846	7.0000e-005	0.0000	1.0863
Worker	2.8000e-004	2.2000e-004	2.5000e-003	1.0000e-005	1.9800e-003	1.0000e-005	1.9800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	0.6527	0.6527	2.0000e-005	0.0000	0.6532
Total	**4.2000e-004**	**4.5600e-003**	**3.6800e-003**	**2.0000e-005**	**2.6500e-003**	**2.0000e-005**	**2.6600e-003**	**6.8000e-004**	**2.0000e-005**	**6.9000e-004**	**0.0000**	**1.7373**	**1.7373**	**9.0000e-005**	**0.0000**	**1.7394**

3.6 Paving & Site Infrastructure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4200e-003	0.0969	0.1099	1.7000e-004		5.0800e-003	5.0800e-003		4.6800e-003	4.6800e-003	0.0000	15.0176	15.0176	4.8600e-003	0.0000	15.1390
Paving	5.8200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0969**	**0.1099**	**1.7000e-004**		**5.0800e-003**	**5.0800e-003**		**4.6800e-003**	**4.6800e-003**	**0.0000**	**15.0176**	**15.0176**	**4.8600e-003**	**0.0000**	**15.1390**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	2.9600e-003	8.0000e-004	1.0000e-005	1.9000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7395	0.7395	5.0000e-005	0.0000	0.7406
Worker	5.2000e-004	4.0000e-004	4.5400e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1867	1.1867	3.0000e-005	0.0000	1.1876
Total	**6.1000e-004**	**3.3600e-003**	**5.3400e-003**	**2.0000e-005**	**1.5000e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-004**	**2.0000e-005**	**4.2000e-004**	**0.0000**	**1.9262**	**1.9262**	**8.0000e-005**	**0.0000**	**1.9282**

3.6 Paving & Site Infrastructure - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4200e-003	0.0969	0.1099	1.7000e-004		5.0800e-003	5.0800e-003		4.6800e-003	4.6800e-003	0.0000	15.0176	15.0176	4.8600e-003	0.0000	15.1390
Paving	5.8200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0969**	**0.1099**	**1.7000e-004**		**5.0800e-003**	**5.0800e-003**		**4.6800e-003**	**4.6800e-003**	**0.0000**	**15.0176**	**15.0176**	**4.8600e-003**	**0.0000**	**15.1390**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	2.9600e-003	8.0000e-004	1.0000e-005	1.9000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7395	0.7395	5.0000e-005	0.0000	0.7406
Worker	5.2000e-004	4.0000e-004	4.5400e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1867	1.1867	3.0000e-005	0.0000	1.1876
Total	**6.1000e-004**	**3.3600e-003**	**5.3400e-003**	**2.0000e-005**	**1.5000e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-004**	**2.0000e-005**	**4.2000e-004**	**0.0000**	**1.9262**	**1.9262**	**8.0000e-005**	**0.0000**	**1.9282**

3.7 Office Building & Staff Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1059	0.8432	0.8731	1.3500e-003		0.0470	0.0470		0.0446	0.0446	0.0000	113.0989	113.0989	0.0250	0.0000	113.7240
Total	**0.1059**	**0.8432**	**0.8731**	**1.3500e-003**		**0.0470**	**0.0470**		**0.0446**	**0.0446**	**0.0000**	**113.0989**	**113.0989**	**0.0250**	**0.0000**	**113.7240**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6400e-003	0.0521	0.0141	1.3000e-004	3.3300e-003	1.1000e-004	3.4300e-003	9.6000e-004	1.0000e-004	1.0600e-003	0.0000	13.0150	13.0150	8.0000e-004	0.0000	13.0350
Worker	3.4100e-003	2.6500e-003	0.0300	9.0000e-005	8.6800e-003	7.0000e-005	8.7500e-003	2.3100e-003	7.0000e-005	2.3700e-003	0.0000	7.8322	7.8322	2.3000e-004	0.0000	7.8380
Total	**5.0500e-003**	**0.0548**	**0.0441**	**2.2000e-004**	**0.0120**	**1.8000e-004**	**0.0122**	**3.2700e-003**	**1.7000e-004**	**3.4300e-003**	**0.0000**	**20.8472**	**20.8472**	**1.0300e-003**	**0.0000**	**20.8730**

3.7 Office Building & Staff Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1059	0.8432	0.8731	1.3500e-003		0.0470	0.0470		0.0446	0.0446	0.0000	113.0987	113.0987	0.0250	0.0000	113.7238
Total	**0.1059**	**0.8432**	**0.8731**	**1.3500e-003**		**0.0470**	**0.0470**		**0.0446**	**0.0446**	**0.0000**	**113.0987**	**113.0987**	**0.0250**	**0.0000**	**113.7238**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6400e-003	0.0521	0.0141	1.3000e-004	3.3300e-003	1.1000e-004	3.4300e-003	9.6000e-004	1.0000e-004	1.0600e-003	0.0000	13.0150	13.0150	8.0000e-004	0.0000	13.0350
Worker	3.4100e-003	2.6500e-003	0.0300	9.0000e-005	8.6800e-003	7.0000e-005	8.7500e-003	2.3100e-003	7.0000e-005	2.3700e-003	0.0000	7.8322	7.8322	2.3000e-004	0.0000	7.8380
Total	**5.0500e-003**	**0.0548**	**0.0441**	**2.2000e-004**	**0.0120**	**1.8000e-004**	**0.0122**	**3.2700e-003**	**1.7000e-004**	**3.4300e-003**	**0.0000**	**20.8472**	**20.8472**	**1.0300e-003**	**0.0000**	**20.8730**

3.7 Office Building & Staff Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1160	0.9333	1.0493	1.6400e-003		0.0482	0.0482		0.0458	0.0458	0.0000	137.5654	137.5654	0.0300	0.0000	138.3152
Total	**0.1160**	**0.9333**	**1.0493**	**1.6400e-003**		**0.0482**	**0.0482**		**0.0458**	**0.0458**	**0.0000**	**137.5654**	**137.5654**	**0.0300**	**0.0000**	**138.3152**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8700e-003	0.0602	0.0163	1.6000e-004	4.0400e-003	1.1000e-004	4.1600e-003	1.1700e-003	1.1000e-004	1.2800e-003	0.0000	15.6861	15.6861	9.4000e-004	0.0000	15.7095
Worker	3.8900e-003	2.9100e-003	0.0336	1.0000e-004	0.0106	8.0000e-005	0.0106	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	9.1885	9.1885	2.5000e-004	0.0000	9.1948
Total	**5.7600e-003**	**0.0631**	**0.0498**	**2.6000e-004**	**0.0146**	**1.9000e-004**	**0.0148**	**3.9700e-003**	**1.9000e-004**	**4.1600e-003**	**0.0000**	**24.8746**	**24.8746**	**1.1900e-003**	**0.0000**	**24.9044**

3.7 Office Building & Staff Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1160	0.9333	1.0493	1.6400e-003		0.0482	0.0482		0.0458	0.0458	0.0000	137.5652	137.5652	0.0300	0.0000	138.3150
Total	**0.1160**	**0.9333**	**1.0493**	**1.6400e-003**		**0.0482**	**0.0482**		**0.0458**	**0.0458**	**0.0000**	**137.5652**	**137.5652**	**0.0300**	**0.0000**	**138.3150**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8700e-003	0.0602	0.0163	1.6000e-004	4.0400e-003	1.1000e-004	4.1600e-003	1.1700e-003	1.1000e-004	1.2800e-003	0.0000	15.6861	15.6861	9.4000e-004	0.0000	15.7095
Worker	3.8900e-003	2.9100e-003	0.0336	1.0000e-004	0.0106	8.0000e-005	0.0106	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	9.1885	9.1885	2.5000e-004	0.0000	9.1948
Total	**5.7600e-003**	**0.0631**	**0.0498**	**2.6000e-004**	**0.0146**	**1.9000e-004**	**0.0148**	**3.9700e-003**	**1.9000e-004**	**4.1600e-003**	**0.0000**	**24.8746**	**24.8746**	**1.1900e-003**	**0.0000**	**24.9044**

3.8 Water Distribution Shop and Maintenance Building - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7052	0.6408	1.1000e-003		0.0360	0.0360		0.0345	0.0345	0.0000	91.3654	91.3654	0.0180	0.0000	91.8148
Total	**0.0900**	**0.7052**	**0.6408**	**1.1000e-003**		**0.0360**	**0.0360**		**0.0345**	**0.0345**	**0.0000**	**91.3654**	**91.3654**	**0.0180**	**0.0000**	**91.8148**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2800e-003	0.1042	0.0283	2.7000e-004	6.6500e-003	2.1000e-004	6.8600e-003	1.9200e-003	2.0000e-004	2.1200e-003	0.0000	26.0300	26.0300	1.6000e-003	0.0000	26.0700
Worker	9.0900e-003	7.0700e-003	0.0799	2.3000e-004	0.0231	1.9000e-004	0.0233	6.1500e-003	1.8000e-004	6.3200e-003	0.0000	20.8859	20.8859	6.1000e-004	0.0000	20.9013
Total	**0.0124**	**0.1113**	**0.1081**	**5.0000e-004**	**0.0298**	**4.0000e-004**	**0.0302**	**8.0700e-003**	**3.8000e-004**	**8.4400e-003**	**0.0000**	**46.9160**	**46.9160**	**2.2100e-003**	**0.0000**	**46.9712**

3.8 Water Distribution Shop and Maintenance Building - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7052	0.6408	1.1000e-003		0.0360	0.0360		0.0345	0.0345	0.0000	91.3653	91.3653	0.0180	0.0000	91.8147
Total	**0.0900**	**0.7052**	**0.6408**	**1.1000e-003**		**0.0360**	**0.0360**		**0.0345**	**0.0345**	**0.0000**	**91.3653**	**91.3653**	**0.0180**	**0.0000**	**91.8147**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2800e-003	0.1042	0.0283	2.7000e-004	6.6500e-003	2.1000e-004	6.8600e-003	1.9200e-003	2.0000e-004	2.1200e-003	0.0000	26.0300	26.0300	1.6000e-003	0.0000	26.0700
Worker	9.0900e-003	7.0700e-003	0.0799	2.3000e-004	0.0231	1.9000e-004	0.0233	6.1500e-003	1.8000e-004	6.3200e-003	0.0000	20.8859	20.8859	6.1000e-004	0.0000	20.9013
Total	**0.0124**	**0.1113**	**0.1081**	**5.0000e-004**	**0.0298**	**4.0000e-004**	**0.0302**	**8.0700e-003**	**3.8000e-004**	**8.4400e-003**	**0.0000**	**46.9160**	**46.9160**	**2.2100e-003**	**0.0000**	**46.9712**

3.8 Water Distribution Shop and Maintenance Building - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1392	1.0953	1.0765	1.8800e-003		0.0527	0.0527		0.0505	0.0505	0.0000	155.7601	155.7601	0.0301	0.0000	156.5113
Total	**0.1392**	**1.0953**	**1.0765**	**1.8800e-003**		**0.0527**	**0.0527**		**0.0505**	**0.0505**	**0.0000**	**155.7601**	**155.7601**	**0.0301**	**0.0000**	**156.5113**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2500e-003	0.1688	0.0456	4.5000e-004	0.0113	3.2000e-004	0.0117	3.2700e-003	3.0000e-004	3.5800e-003	0.0000	43.9797	43.9797	2.6300e-003	0.0000	44.0454
Worker	0.0145	0.0109	0.1254	3.8000e-004	0.0395	3.1000e-004	0.0398	0.0105	2.9000e-004	0.0108	0.0000	34.3496	34.3496	9.5000e-004	0.0000	34.3732
Total	**0.0198**	**0.1797**	**0.1710**	**8.3000e-004**	**0.0508**	**6.3000e-004**	**0.0514**	**0.0138**	**5.9000e-004**	**0.0144**	**0.0000**	**78.3292**	**78.3292**	**3.5800e-003**	**0.0000**	**78.4186**

3.8 Water Distribution Shop and Maintenance Building - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1392	1.0953	1.0765	1.8800e-003		0.0527	0.0527		0.0505	0.0505	0.0000	155.7599	155.7599	0.0301	0.0000	156.5112
Total	**0.1392**	**1.0953**	**1.0765**	**1.8800e-003**		**0.0527**	**0.0527**		**0.0505**	**0.0505**	**0.0000**	**155.7599**	**155.7599**	**0.0301**	**0.0000**	**156.5112**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2500e-003	0.1688	0.0456	4.5000e-004	0.0113	3.2000e-004	0.0117	3.2700e-003	3.0000e-004	3.5800e-003	0.0000	43.9797	43.9797	2.6300e-003	0.0000	44.0454
Worker	0.0145	0.0109	0.1254	3.8000e-004	0.0395	3.1000e-004	0.0398	0.0105	2.9000e-004	0.0108	0.0000	34.3496	34.3496	9.5000e-004	0.0000	34.3732
Total	**0.0198**	**0.1797**	**0.1710**	**8.3000e-004**	**0.0508**	**6.3000e-004**	**0.0514**	**0.0138**	**5.9000e-004**	**0.0144**	**0.0000**	**78.3292**	**78.3292**	**3.5800e-003**	**0.0000**	**78.4186**

3.9 Department Fleet Vehicles Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7052	0.6408	1.1000e-003		0.0360	0.0360		0.0345	0.0345	0.0000	91.3654	91.3654	0.0180	0.0000	91.8148
Total	**0.0900**	**0.7052**	**0.6408**	**1.1000e-003**		**0.0360**	**0.0360**		**0.0345**	**0.0345**	**0.0000**	**91.3654**	**91.3654**	**0.0180**	**0.0000**	**91.8148**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	0.0174	4.7100e-003	4.0000e-005	1.1100e-003	4.0000e-005	1.1400e-003	3.2000e-004	3.0000e-005	3.5000e-004	0.0000	4.3383	4.3383	2.7000e-004	0.0000	4.3450
Worker	0.0129	0.0100	0.1131	3.3000e-004	0.0328	2.7000e-004	0.0331	8.7100e-003	2.5000e-004	8.9600e-003	0.0000	29.5884	29.5884	8.7000e-004	0.0000	29.6102
Total	**0.0134**	**0.0274**	**0.1179**	**3.7000e-004**	**0.0339**	**3.1000e-004**	**0.0342**	**9.0300e-003**	**2.8000e-004**	**9.3100e-003**	**0.0000**	**33.9267**	**33.9267**	**1.1400e-003**	**0.0000**	**33.9552**

3.9 Department Fleet Vehicles Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7052	0.6408	1.1000e-003		0.0360	0.0360		0.0345	0.0345	0.0000	91.3653	91.3653	0.0180	0.0000	91.8147
Total	**0.0900**	**0.7052**	**0.6408**	**1.1000e-003**		**0.0360**	**0.0360**		**0.0345**	**0.0345**	**0.0000**	**91.3653**	**91.3653**	**0.0180**	**0.0000**	**91.8147**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	0.0174	4.7100e-003	4.0000e-005	1.1100e-003	4.0000e-005	1.1400e-003	3.2000e-004	3.0000e-005	3.5000e-004	0.0000	4.3383	4.3383	2.7000e-004	0.0000	4.3450
Worker	0.0129	0.0100	0.1131	3.3000e-004	0.0328	2.7000e-004	0.0331	8.7100e-003	2.5000e-004	8.9600e-003	0.0000	29.5884	29.5884	8.7000e-004	0.0000	29.6102
Total	**0.0134**	**0.0274**	**0.1179**	**3.7000e-004**	**0.0339**	**3.1000e-004**	**0.0342**	**9.0300e-003**	**2.8000e-004**	**9.3100e-003**	**0.0000**	**33.9267**	**33.9267**	**1.1400e-003**	**0.0000**	**33.9552**

3.9 Department Fleet Vehicles Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1605	1.2633	1.2416	2.1600e-003		0.0607	0.0607		0.0582	0.0582	0.0000	179.6433	179.6433	0.0347	0.0000	180.5098
Total	**0.1605**	**1.2633**	**1.2416**	**2.1600e-003**		**0.0607**	**0.0607**		**0.0582**	**0.0582**	**0.0000**	**179.6433**	**179.6433**	**0.0347**	**0.0000**	**180.5098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0324	8.7600e-003	9.0000e-005	2.1800e-003	6.0000e-005	2.2400e-003	6.3000e-004	6.0000e-005	6.9000e-004	0.0000	8.4539	8.4539	5.0000e-004	0.0000	8.4665
Worker	0.0237	0.0178	0.2050	6.2000e-004	0.0645	5.1000e-004	0.0650	0.0171	4.7000e-004	0.0176	0.0000	56.1234	56.1234	1.5500e-003	0.0000	56.1620
Total	**0.0247**	**0.0502**	**0.2137**	**7.1000e-004**	**0.0666**	**5.7000e-004**	**0.0672**	**0.0178**	**5.3000e-004**	**0.0183**	**0.0000**	**64.5773**	**64.5773**	**2.0500e-003**	**0.0000**	**64.6285**

3.9 Department Fleet Vehicles Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1605	1.2633	1.2416	2.1600e-003		0.0607	0.0607		0.0582	0.0582	0.0000	179.6431	179.6431	0.0347	0.0000	180.5095
Total	**0.1605**	**1.2633**	**1.2416**	**2.1600e-003**		**0.0607**	**0.0607**		**0.0582**	**0.0582**	**0.0000**	**179.6431**	**179.6431**	**0.0347**	**0.0000**	**180.5095**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0324	8.7600e-003	9.0000e-005	2.1800e-003	6.0000e-005	2.2400e-003	6.3000e-004	6.0000e-005	6.9000e-004	0.0000	8.4539	8.4539	5.0000e-004	0.0000	8.4665
Worker	0.0237	0.0178	0.2050	6.2000e-004	0.0645	5.1000e-004	0.0650	0.0171	4.7000e-004	0.0176	0.0000	56.1234	56.1234	1.5500e-003	0.0000	56.1620
Total	**0.0247**	**0.0502**	**0.2137**	**7.1000e-004**	**0.0666**	**5.7000e-004**	**0.0672**	**0.0178**	**5.3000e-004**	**0.0183**	**0.0000**	**64.5773**	**64.5773**	**2.0500e-003**	**0.0000**	**64.6285**

3.10 Supply Chain Services Warehouse - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0798	0.6000	0.5676	9.7000e-004		0.0301	0.0301		0.0291	0.0291	0.0000	79.8810	79.8810	0.0143	0.0000	80.2375
Total	**0.0798**	**0.6000**	**0.5676**	**9.7000e-004**		**0.0301**	**0.0301**		**0.0291**	**0.0291**	**0.0000**	**79.8810**	**79.8810**	**0.0143**	**0.0000**	**80.2375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0695	0.0188	1.8000e-004	4.4300e-003	1.4000e-004	4.5800e-003	1.2800e-003	1.4000e-004	1.4200e-003	0.0000	17.3534	17.3534	1.0600e-003	0.0000	17.3800
Worker	5.3000e-003	4.1300e-003	0.0466	1.3000e-004	0.0135	1.1000e-004	0.0136	3.5900e-003	1.0000e-004	3.6900e-003	0.0000	12.1835	12.1835	3.6000e-004	0.0000	12.1924
Total	**7.4900e-003**	**0.0736**	**0.0654**	**3.1000e-004**	**0.0179**	**2.5000e-004**	**0.0182**	**4.8700e-003**	**2.4000e-004**	**5.1100e-003**	**0.0000**	**29.5368**	**29.5368**	**1.4200e-003**	**0.0000**	**29.5724**

3.10 Supply Chain Services Warehouse - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0798	0.6000	0.5676	9.7000e-004		0.0301	0.0301		0.0291	0.0291	0.0000	79.8809	79.8809	0.0143	0.0000	80.2374
Total	**0.0798**	**0.6000**	**0.5676**	**9.7000e-004**		**0.0301**	**0.0301**		**0.0291**	**0.0291**	**0.0000**	**79.8809**	**79.8809**	**0.0143**	**0.0000**	**80.2374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0695	0.0188	1.8000e-004	4.4300e-003	1.4000e-004	4.5800e-003	1.2800e-003	1.4000e-004	1.4200e-003	0.0000	17.3534	17.3534	1.0600e-003	0.0000	17.3800
Worker	5.3000e-003	4.1300e-003	0.0466	1.3000e-004	0.0135	1.1000e-004	0.0136	3.5900e-003	1.0000e-004	3.6900e-003	0.0000	12.1835	12.1835	3.6000e-004	0.0000	12.1924
Total	**7.4900e-003**	**0.0736**	**0.0654**	**3.1000e-004**	**0.0179**	**2.5000e-004**	**0.0182**	**4.8700e-003**	**2.4000e-004**	**5.1100e-003**	**0.0000**	**29.5368**	**29.5368**	**1.4200e-003**	**0.0000**	**29.5724**

3.10 Supply Chain Services Warehouse - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1426	1.0815	1.1008	1.9100e-003		0.0509	0.0509		0.0492	0.0492	0.0000	157.0640	157.0640	0.0274	0.0000	157.7479
Total	**0.1426**	**1.0815**	**1.1008**	**1.9100e-003**		**0.0509**	**0.0509**		**0.0492**	**0.0492**	**0.0000**	**157.0640**	**157.0640**	**0.0274**	**0.0000**	**157.7479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e-003	0.1298	0.0350	3.5000e-004	8.7200e-003	2.4000e-004	8.9600e-003	2.5200e-003	2.3000e-004	2.7500e-003	0.0000	33.8155	33.8155	2.0200e-003	0.0000	33.8660
Worker	9.7700e-003	7.3300e-003	0.0844	2.6000e-004	0.0265	2.1000e-004	0.0268	7.0500e-003	2.0000e-004	7.2400e-003	0.0000	23.1096	23.1096	6.4000e-004	0.0000	23.1255
Total	**0.0138**	**0.1371**	**0.1194**	**6.1000e-004**	**0.0353**	**4.5000e-004**	**0.0357**	**9.5700e-003**	**4.3000e-004**	**9.9900e-003**	**0.0000**	**56.9251**	**56.9251**	**2.6600e-003**	**0.0000**	**56.9915**

3.10 Supply Chain Services Warehouse - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1426	1.0815	1.1008	1.9100e-003		0.0509	0.0509		0.0492	0.0492	0.0000	157.0638	157.0638	0.0274	0.0000	157.7477
Total	**0.1426**	**1.0815**	**1.1008**	**1.9100e-003**		**0.0509**	**0.0509**		**0.0492**	**0.0492**	**0.0000**	**157.0638**	**157.0638**	**0.0274**	**0.0000**	**157.7477**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e-003	0.1298	0.0350	3.5000e-004	8.7200e-003	2.4000e-004	8.9600e-003	2.5200e-003	2.3000e-004	2.7500e-003	0.0000	33.8155	33.8155	2.0200e-003	0.0000	33.8660
Worker	9.7700e-003	7.3300e-003	0.0844	2.6000e-004	0.0265	2.1000e-004	0.0268	7.0500e-003	2.0000e-004	7.2400e-003	0.0000	23.1096	23.1096	6.4000e-004	0.0000	23.1255
Total	**0.0138**	**0.1371**	**0.1194**	**6.1000e-004**	**0.0353**	**4.5000e-004**	**0.0357**	**9.5700e-003**	**4.3000e-004**	**9.9900e-003**	**0.0000**	**56.9251**	**56.9251**	**2.6600e-003**	**0.0000**	**56.9915**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0953	0.8856	0.9369	1.4800e-003		0.0481	0.0481		0.0451	0.0451	0.0000	127.4405	127.4405	0.0328	0.0000	128.2616
Total	**0.0953**	**0.8856**	**0.9369**	**1.4800e-003**		**0.0481**	**0.0481**		**0.0451**	**0.0451**	**0.0000**	**127.4405**	**127.4405**	**0.0328**	**0.0000**	**128.2616**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0434	0.0118	1.1000e-004	2.7700e-003	9.0000e-005	2.8600e-003	8.0000e-004	8.0000e-005	8.8000e-004	0.0000	10.8459	10.8459	6.7000e-004	0.0000	10.8625
Worker	3.0300e-003	2.3600e-003	0.0266	8.0000e-005	7.7100e-003	6.0000e-005	7.7800e-003	2.0500e-003	6.0000e-005	2.1100e-003	0.0000	6.9620	6.9620	2.0000e-004	0.0000	6.9671
Total	**4.4000e-003**	**0.0458**	**0.0384**	**1.9000e-004**	**0.0105**	**1.5000e-004**	**0.0106**	**2.8500e-003**	**1.4000e-004**	**2.9900e-003**	**0.0000**	**17.8078**	**17.8078**	**8.7000e-004**	**0.0000**	**17.8296**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0953	0.8856	0.9369	1.4800e-003		0.0481	0.0481		0.0451	0.0451	0.0000	127.4404	127.4404	0.0328	0.0000	128.2614
Total	**0.0953**	**0.8856**	**0.9369**	**1.4800e-003**		**0.0481**	**0.0481**		**0.0451**	**0.0451**	**0.0000**	**127.4404**	**127.4404**	**0.0328**	**0.0000**	**128.2614**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0434	0.0118	1.1000e-004	2.7700e-003	9.0000e-005	2.8600e-003	8.0000e-004	8.0000e-005	8.8000e-004	0.0000	10.8459	10.8459	6.7000e-004	0.0000	10.8625
Worker	3.0300e-003	2.3600e-003	0.0266	8.0000e-005	7.7100e-003	6.0000e-005	7.7800e-003	2.0500e-003	6.0000e-005	2.1100e-003	0.0000	6.9620	6.9620	2.0000e-004	0.0000	6.9671
Total	**4.4000e-003**	**0.0458**	**0.0384**	**1.9000e-004**	**0.0105**	**1.5000e-004**	**0.0106**	**2.8500e-003**	**1.4000e-004**	**2.9900e-003**	**0.0000**	**17.8078**	**17.8078**	**8.7000e-004**	**0.0000**	**17.8296**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1453	1.3436	1.5824	2.5200e-003		0.0690	0.0690		0.0647	0.0647	0.0000	217.3122	217.3122	0.0557	0.0000	218.7050
Total	**0.1453**	**1.3436**	**1.5824**	**2.5200e-003**		**0.0690**	**0.0690**		**0.0647**	**0.0647**	**0.0000**	**217.3122**	**217.3122**	**0.0557**	**0.0000**	**218.7050**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0703	0.0190	1.9000e-004	4.7200e-003	1.3000e-004	4.8600e-003	1.3600e-003	1.3000e-004	1.4900e-003	0.0000	18.3249	18.3249	1.0900e-003	0.0000	18.3522
Worker	4.8400e-003	3.6300e-003	0.0418	1.3000e-004	0.0132	1.0000e-004	0.0133	3.4900e-003	1.0000e-004	3.5900e-003	0.0000	11.4499	11.4499	3.2000e-004	0.0000	11.4577
Total	**7.0300e-003**	**0.0740**	**0.0608**	**3.2000e-004**	**0.0179**	**2.3000e-004**	**0.0181**	**4.8500e-003**	**2.3000e-004**	**5.0800e-003**	**0.0000**	**29.7747**	**29.7747**	**1.4100e-003**	**0.0000**	**29.8100**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1453	1.3436	1.5824	2.5200e-003		0.0690	0.0690		0.0647	0.0647	0.0000	217.3120	217.3120	0.0557	0.0000	218.7048
Total	**0.1453**	**1.3436**	**1.5824**	**2.5200e-003**		**0.0690**	**0.0690**		**0.0647**	**0.0647**	**0.0000**	**217.3120**	**217.3120**	**0.0557**	**0.0000**	**218.7048**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0703	0.0190	1.9000e-004	4.7200e-003	1.3000e-004	4.8600e-003	1.3600e-003	1.3000e-004	1.4900e-003	0.0000	18.3249	18.3249	1.0900e-003	0.0000	18.3522
Worker	4.8400e-003	3.6300e-003	0.0418	1.3000e-004	0.0132	1.0000e-004	0.0133	3.4900e-003	1.0000e-004	3.5900e-003	0.0000	11.4499	11.4499	3.2000e-004	0.0000	11.4577
Total	**7.0300e-003**	**0.0740**	**0.0608**	**3.2000e-004**	**0.0179**	**2.3000e-004**	**0.0181**	**4.8500e-003**	**2.3000e-004**	**5.0800e-003**	**0.0000**	**29.7747**	**29.7747**	**1.4100e-003**	**0.0000**	**29.8100**

3.12 Street Improvement of Hazeltine Avenue - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1402	1.3951	1.1206	2.1100e-003		0.0658	0.0658		0.0613	0.0613	0.0000	182.9336	182.9336	0.0507	0.0000	184.2014
Total	**0.1402**	**1.3951**	**1.1206**	**2.1100e-003**		**0.0658**	**0.0658**		**0.0613**	**0.0613**	**0.0000**	**182.9336**	**182.9336**	**0.0507**	**0.0000**	**184.2014**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0129	0.4139	0.1028	1.2300e-003	0.0327	1.1600e-003	0.0339	8.8400e-003	1.1100e-003	9.9500e-003	0.0000	121.3539	121.3539	8.3900e-003	0.0000	121.5637
Vendor	2.5000e-004	8.1600e-003	2.2000e-003	2.0000e-005	5.5000e-004	2.0000e-005	5.6000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	2.1257	2.1257	1.3000e-004	0.0000	2.1289
Worker	2.8100e-003	2.1100e-003	0.0243	7.0000e-005	7.6300e-003	6.0000e-005	7.6900e-003	2.0300e-003	6.0000e-005	2.0800e-003	0.0000	6.6409	6.6409	1.8000e-004	0.0000	6.6455
Total	**0.0160**	**0.4242**	**0.1293**	**1.3200e-003**	**0.0409**	**1.2400e-003**	**0.0421**	**0.0110**	**1.1800e-003**	**0.0122**	**0.0000**	**130.1205**	**130.1205**	**8.7000e-003**	**0.0000**	**130.3381**

3.12 Street Improvement of Hazeltine Avenue - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1402	1.3951	1.1206	2.1100e-003		0.0658	0.0658		0.0613	0.0613	0.0000	182.9334	182.9334	0.0507	0.0000	184.2012
Total	**0.1402**	**1.3951**	**1.1206**	**2.1100e-003**		**0.0658**	**0.0658**		**0.0613**	**0.0613**	**0.0000**	**182.9334**	**182.9334**	**0.0507**	**0.0000**	**184.2012**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0129	0.4139	0.1028	1.2300e-003	0.0327	1.1600e-003	0.0339	8.8400e-003	1.1100e-003	9.9500e-003	0.0000	121.3539	121.3539	8.3900e-003	0.0000	121.5637
Vendor	2.5000e-004	8.1600e-003	2.2000e-003	2.0000e-005	5.5000e-004	2.0000e-005	5.6000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	2.1257	2.1257	1.3000e-004	0.0000	2.1289
Worker	2.8100e-003	2.1100e-003	0.0243	7.0000e-005	7.6300e-003	6.0000e-005	7.6900e-003	2.0300e-003	6.0000e-005	2.0800e-003	0.0000	6.6409	6.6409	1.8000e-004	0.0000	6.6455
Total	**0.0160**	**0.4242**	**0.1293**	**1.3200e-003**	**0.0409**	**1.2400e-003**	**0.0421**	**0.0110**	**1.1800e-003**	**0.0122**	**0.0000**	**130.1205**	**130.1205**	**8.7000e-003**	**0.0000**	**130.3381**

3.12 Street Improvement of Hazeltine Avenue - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.2970	0.2639	5.1000e-004		0.0134	0.0134		0.0125	0.0125	0.0000	44.1624	44.1624	0.0122	0.0000	44.4675
Total	**0.0303**	**0.2970**	**0.2639**	**5.1000e-004**		**0.0134**	**0.0134**		**0.0125**	**0.0125**	**0.0000**	**44.1624**	**44.1624**	**0.0122**	**0.0000**	**44.4675**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0500e-003	0.0656	0.0225	2.8000e-004	0.0275	1.2000e-004	0.0276	6.9500e-003	1.1000e-004	7.0600e-003	0.0000	28.0724	28.0724	1.8800e-003	0.0000	28.1194
Vendor	5.0000e-005	1.4900e-003	4.8000e-004	1.0000e-005	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.4970	0.4970	3.0000e-005	0.0000	0.4977
Worker	6.4000e-004	4.6000e-004	5.3800e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5443	1.5443	4.0000e-005	0.0000	1.5453
Total	**2.7400e-003**	**0.0675**	**0.0284**	**3.1000e-004**	**0.0295**	**1.3000e-004**	**0.0296**	**7.4800e-003**	**1.2000e-004**	**7.6000e-003**	**0.0000**	**30.1137**	**30.1137**	**1.9500e-003**	**0.0000**	**30.1624**

3.12 Street Improvement of Hazeltine Avenue - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.2970	0.2639	5.1000e-004		0.0134	0.0134		0.0125	0.0125	0.0000	44.1624	44.1624	0.0122	0.0000	44.4674
Total	**0.0303**	**0.2970**	**0.2639**	**5.1000e-004**		**0.0134**	**0.0134**		**0.0125**	**0.0125**	**0.0000**	**44.1624**	**44.1624**	**0.0122**	**0.0000**	**44.4674**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0500e-003	0.0656	0.0225	2.8000e-004	0.0275	1.2000e-004	0.0276	6.9500e-003	1.1000e-004	7.0600e-003	0.0000	28.0724	28.0724	1.8800e-003	0.0000	28.1194
Vendor	5.0000e-005	1.4900e-003	4.8000e-004	1.0000e-005	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.4970	0.4970	3.0000e-005	0.0000	0.4977
Worker	6.4000e-004	4.6000e-004	5.3800e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5443	1.5443	4.0000e-005	0.0000	1.5453
Total	**2.7400e-003**	**0.0675**	**0.0284**	**3.1000e-004**	**0.0295**	**1.3000e-004**	**0.0296**	**7.4800e-003**	**1.2000e-004**	**7.6000e-003**	**0.0000**	**30.1137**	**30.1137**	**1.9500e-003**	**0.0000**	**30.1624**

3.13 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4288					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-003	0.0296	0.0381	6.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	5.3618	5.3618	3.5000e-004	0.0000	5.3706
Total	**1.4331**	**0.0296**	**0.0381**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**5.3618**	**5.3618**	**3.5000e-004**	**0.0000**	**5.3706**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3500e-003	0.0433	0.0117	1.2000e-004	2.9100e-003	8.0000e-005	2.9900e-003	8.4000e-004	8.0000e-005	9.2000e-004	0.0000	11.2881	11.2881	6.7000e-004	0.0000	11.3050
Worker	3.7300e-003	2.8000e-003	0.0322	1.0000e-004	0.0101	8.0000e-005	0.0102	2.6900e-003	7.0000e-005	2.7600e-003	0.0000	8.8164	8.8164	2.4000e-004	0.0000	8.8225
Total	**5.0800e-003**	**0.0461**	**0.0439**	**2.2000e-004**	**0.0130**	**1.6000e-004**	**0.0132**	**3.5300e-003**	**1.5000e-004**	**3.6800e-003**	**0.0000**	**20.1045**	**20.1045**	**9.1000e-004**	**0.0000**	**20.1274**

3.13 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4288					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-003	0.0296	0.0381	6.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	5.3618	5.3618	3.5000e-004	0.0000	5.3706
Total	**1.4331**	**0.0296**	**0.0381**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**5.3618**	**5.3618**	**3.5000e-004**	**0.0000**	**5.3706**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3500e-003	0.0433	0.0117	1.2000e-004	2.9100e-003	8.0000e-005	2.9900e-003	8.4000e-004	8.0000e-005	9.2000e-004	0.0000	11.2881	11.2881	6.7000e-004	0.0000	11.3050
Worker	3.7300e-003	2.8000e-003	0.0322	1.0000e-004	0.0101	8.0000e-005	0.0102	2.6900e-003	7.0000e-005	2.7600e-003	0.0000	8.8164	8.8164	2.4000e-004	0.0000	8.8225
Total	**5.0800e-003**	**0.0461**	**0.0439**	**2.2000e-004**	**0.0130**	**1.6000e-004**	**0.0132**	**3.5300e-003**	**1.5000e-004**	**3.6800e-003**	**0.0000**	**20.1045**	**20.1045**	**9.1000e-004**	**0.0000**	**20.1274**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1418	0.6365	0.6354	1.1200e-003	0.0273	1.2600e-003	0.0286	7.3200e-003	1.1700e-003	8.4900e-003	0.0000	106.3183	106.3183	0.0103	0.0000	106.5765
Unmitigated	0.1418	0.6365	0.6354	1.1200e-003	0.0273	1.2600e-003	0.0286	7.3200e-003	1.1700e-003	8.4900e-003	0.0000	106.3183	106.3183	0.0103	0.0000	106.5765

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Light Industry	1,359.52	257.52	132.24	67,339	67,339
General Light Industry	93.76	17.76	9.12	4,644	4,644
General Office Building	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	1,453.28	275.28	141.36	71,983	71,983

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	0.19	0.19	0.19	59.00	28.00	13.00	92	5	3
General Light Industry	0.19	0.19	0.19	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking Structure	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Light Industry	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Office Building	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Other Asphalt Surfaces	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Research & Development	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Unrefrigerated Warehouse-No Rail	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,419.6010	1,419.6010	0.0337	7.4900e-003	1,422.6755
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,419.6010	1,419.6010	0.0337	7.4900e-003	1,422.6755
NaturalGas Mitigated	0.0192	0.1747	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.1545	190.1545	3.6400e-003	3.4900e-003	191.2845
NaturalGas Unmitigated	0.0192	0.1747	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.1545	190.1545	3.6400e-003	3.4900e-003	191.2845

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	162900	8.8000e-004	7.9900e-003	6.7100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.6930	8.6930	1.7000e-004	1.6000e-004	8.7446
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	144800	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7271	7.7271	1.5000e-004	1.4000e-004	7.7730
General Light Industry	2.0996e+006	0.0113	0.1029	0.0865	6.2000e-004		7.8200e-003	7.8200e-003		7.8200e-003	7.8200e-003	0.0000	112.0427	112.0427	2.1500e-003	2.0500e-003	112.7085
General Office Building	31230	1.7000e-004	1.5300e-003	1.2900e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.6666	1.6666	3.0000e-005	3.0000e-005	1.6765
General Office Building	718290	3.8700e-003	0.0352	0.0296	2.1000e-004		2.6800e-003	2.6800e-003		2.6800e-003	2.6800e-003	0.0000	38.3307	38.3307	7.3000e-004	7.0000e-004	38.5585
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	343900	1.8500e-003	0.0169	0.0142	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3518	18.3518	3.5000e-004	3.4000e-004	18.4609
Unrefrigerated Warehouse-No Rail	62640	3.4000e-004	3.0700e-003	2.5800e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3427	3.3427	6.0000e-005	6.0000e-005	3.3626
Total		**0.0192**	**0.1747**	**0.1467**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.1545**	**190.1545**	**3.6400e-003**	**3.4800e-003**	**191.2845**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	162900	8.8000e-004	7.9900e-003	6.7100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.6930	8.6930	1.7000e-004	1.6000e-004	8.7446
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	144800	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7271	7.7271	1.5000e-004	1.4000e-004	7.7730
General Light Industry	2.0996e+006	0.0113	0.1029	0.0865	6.2000e-004		7.8200e-003	7.8200e-003		7.8200e-003	7.8200e-003	0.0000	112.0427	112.0427	2.1500e-003	2.0500e-003	112.7085
General Office Building	31230	1.7000e-004	1.5300e-003	1.2900e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.6666	1.6666	3.0000e-005	3.0000e-005	1.6765
General Office Building	718290	3.8700e-003	0.0352	0.0296	2.1000e-004		2.6800e-003	2.6800e-003		2.6800e-003	2.6800e-003	0.0000	38.3307	38.3307	7.3000e-004	7.0000e-004	38.5585
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	343900	1.8500e-003	0.0169	0.0142	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3518	18.3518	3.5000e-004	3.4000e-004	18.4609
Unrefrigerated Warehouse-No Rail	62640	3.4000e-004	3.0700e-003	2.5800e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3427	3.3427	6.0000e-005	6.0000e-005	3.3626
Total		**0.0192**	**0.1747**	**0.1467**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.1545**	**190.1545**	**3.6400e-003**	**3.4800e-003**	**191.2845**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	99900	34.3552	8.2000e-004	1.8000e-004	34.4296
Enclosed Parking Structure	1.22472e+006	421.1758	0.0100	2.2200e-003	422.0880
General Light Industry	1.2876e+006	442.8000	0.0105	2.3400e-003	443.7590
General Light Industry	88800	30.5379	7.3000e-004	1.6000e-004	30.6041
General Office Building	38970	13.4016	3.2000e-004	7.0000e-005	13.4306
General Office Building	896310	308.2371	7.3200e-003	1.6300e-003	308.9046
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	210900	72.5276	1.7200e-003	3.8000e-004	72.6847
Unrefrigerated Warehouse-No Rail	280800	96.5659	2.2900e-003	5.1000e-004	96.7750
Total		**1,419.6010**	**0.0337**	**7.4900e-003**	**1,422.6755**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	99900	34.3552	8.2000e-004	1.8000e-004	34.4296
Enclosed Parking Structure	1.22472e+006	421.1758	0.0100	2.2200e-003	422.0880
General Light Industry	1.2876e+006	442.8000	0.0105	2.3400e-003	443.7590
General Light Industry	88800	30.5379	7.3000e-004	1.6000e-004	30.6041
General Office Building	38970	13.4016	3.2000e-004	7.0000e-005	13.4306
General Office Building	896310	308.2371	7.3200e-003	1.6300e-003	308.9046
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	210900	72.5276	1.7200e-003	3.8000e-004	72.6847
Unrefrigerated Warehouse-No Rail	280800	96.5659	2.2900e-003	5.1000e-004	96.7750
Total		**1,419.6010**	**0.0337**	**7.4900e-003**	**1,422.6755**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2397	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Unmitigated	1.2397	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.3000e-004	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Total	**1.2397**	**8.0000e-005**	**8.9700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0175**	**0.0175**	**5.0000e-005**	**0.0000**	**0.0186**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.3000e-004	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Total	**1.2397**	**8.0000e-005**	**8.9700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0175**	**0.0175**	**5.0000e-005**	**0.0000**	**0.0186**

7.0 Water Detail

7.1 Mitigation Measures Water

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	359.5073	2.2339	0.0543	431.5491
Unmitigated	359.5073	2.2339	0.0543	431.5491

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.84673 / 0.518964	6.0430	0.0277	6.8000e-004	6.9394
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	28.675 / 0	137.5000	0.9374	0.0227	167.7122
General Office Building	12.7968 / 7.84322	91.3287	0.4191	0.0103	104.8765
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	9.34219 / 0	44.7969	0.3054	7.4100e-003	54.6399
Unrefrigerated Warehouse-No Rail	16.65 / 0	79.8387	0.5443	0.0132	97.3813
Total		**359.5073**	**2.2339**	**0.0543**	**431.5491**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.84673 / 0.518964	6.0430	0.0277	6.8000e-004	6.9394
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	28.675 / 0	137.5000	0.9374	0.0227	167.7122
General Office Building	12.7968 / 7.84322	91.3287	0.4191	0.0103	104.8765
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	9.34219 / 0	44.7969	0.3054	7.4100e-003	54.6399
Unrefrigerated Warehouse-No Rail	16.65 / 0	79.8387	0.5443	0.0132	97.3813
Total		**359.5073**	**2.2339**	**0.0543**	**431.5491**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	65.8137	3.8895	0.0000	163.0507
Unmitigated	65.8137	3.8895	0.0000	163.0507

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	34.38	6.9788	0.4124	0.0000	17.2898
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	153.76	31.2119	1.8446	0.0000	77.3261
General Office Building	66.96	13.5923	0.8033	0.0000	33.6743
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	1.44	0.2923	0.0173	0.0000	0.7242
Unrefrigerated Warehouse-No Rail	67.68	13.7384	0.8119	0.0000	34.0364
Total		**65.8137**	**3.8895**	**0.0000**	**163.0507**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	34.38	6.9788	0.4124	0.0000	17.2898
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	153.76	31.2119	1.8446	0.0000	77.3261
General Office Building	66.96	13.5923	0.8033	0.0000	33.6743
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	1.44	0.2923	0.0173	0.0000	0.7242
Unrefrigerated Warehouse-No Rail	67.68	13.7384	0.8119	0.0000	34.0364
Total		**65.8137**	**3.8895**	**0.0000**	**163.0507**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	4.00	260	89	0.20	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0565	0.5321	0.7369	9.9000e-004		0.0285	0.0285		0.0262	0.0262	0.0000	87.2894	87.2894	0.0282	0.0000	87.9951
Total	**0.0565**	**0.5321**	**0.7369**	**9.9000e-004**		**0.0285**	**0.0285**		**0.0262**	**0.0262**	**0.0000**	**87.2894**	**87.2894**	**0.0282**	**0.0000**	**87.9951**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mid Valley Water Facility Unmitigated

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	69.00	1000sqft	1.58	69,000.00	0
General Office Building	3.00	1000sqft	0.07	3,000.00	0
Research & Development	19.00	1000sqft	0.44	19,000.00	0
General Light Industry	116.00	1000sqft	2.66	116,000.00	0
General Light Industry	8.00	1000sqft	0.18	8,000.00	0
Unrefrigerated Warehouse-No Rail	72.00	1000sqft	1.65	72,000.00	0
Enclosed Parking Structure	216.00	1000sqft	4.96	216,000.00	0
Other Asphalt Surfaces	181.00	1000sqft	4.16	181,000.00	0
Other Asphalt Surfaces	12.00	1000sqft	0.28	12,000.00	0
Automobile Care Center	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	758.16	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Los Angeles Department of Water and Power adjusted for 43.2% RPS in 2026

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Grading - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Vehicle Trips - Data provided by Traffic Report.

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Operational Off-Road Equipment - Data provided by applicant.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	42.00

tblConstructionPhase	NumDays	300.00	22.00
tblConstructionPhase	NumDays	300.00	108.00
tblConstructionPhase	NumDays	30.00	130.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	300.00	195.00
tblConstructionPhase	NumDays	300.00	238.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	300.00	238.00
tblGrading	AcresOfGrading	325.00	6.57
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts

tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Pavers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	1227.89	758.16
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	HaulingTripNumber	0.00	11,118.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,000.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	116.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	0.00
tblTripsAndVMT	VendorTripNumber	116.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	22.00
tblTripsAndVMT	VendorTripNumber	116.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	16.00
tblTripsAndVMT	VendorTripNumber	116.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	116.00	12.00
tblTripsAndVMT	VendorTripNumber	116.00	24.00

tblTripsAndVMT	WorkerTripNumber	20.00	16.00
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tblTripsAndVMT	WorkerTripNumber	286.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	286.00	16.00
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tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	ST_TR	1.32	2.22
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	0.68	1.14
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	6.97	11.72
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1041	1.3174	0.6631	1.9100e-003	0.3428	0.0492	0.3921	0.1630	0.0453	0.2084	0.0000	176.3897	176.3897	0.0364	0.0000	177.3001
2021	0.8245	8.2749	6.4427	0.0153	0.5367	0.3341	0.8708	0.2344	0.3143	0.5487	0.0000	1,368.8108	1,368.8108	0.2494	0.0000	1,375.0456
2022	2.3690	8.1161	7.9973	0.0165	0.2391	0.3525	0.5916	0.0644	0.3347	0.3991	0.0000	1,440.3464	1,440.3464	0.2493	0.0000	1,446.5797
2023	0.0330	0.3645	0.2923	8.1000e-004	0.0295	0.0135	0.0430	7.4700e-003	0.0126	0.0201	0.0000	74.2762	74.2762	0.0142	0.0000	74.6299
Maximum	**2.3690**	**8.2749**	**7.9973**	**0.0165**	**0.5367**	**0.3525**	**0.8708**	**0.2344**	**0.3347**	**0.5487**	**0.0000**	**1,440.3464**	**1,440.3464**	**0.2494**	**0.0000**	**1,446.5797**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1041	1.3174	0.6631	1.9100e-003	0.1827	0.0492	0.2320	0.0760	0.0453	0.1213	0.0000	176.3896	176.3896	0.0364	0.0000	177.3000
2021	0.8245	8.2749	6.4427	0.0153	0.3380	0.3341	0.6721	0.1261	0.3143	0.4404	0.0000	1,368.8097	1,368.8097	0.2494	0.0000	1,375.0446
2022	2.3690	8.1161	7.9973	0.0165	0.2391	0.3525	0.5916	0.0644	0.3347	0.3991	0.0000	1,440.3452	1,440.3452	0.2493	0.0000	1,446.5784
2023	0.0330	0.3645	0.2923	8.1000e-004	0.0295	0.0135	0.0430	7.4700e-003	0.0126	0.0201	0.0000	74.2761	74.2761	0.0142	0.0000	74.6298
Maximum	**2.3690**	**8.2749**	**7.9973**	**0.0165**	**0.3380**	**0.3525**	**0.6721**	**0.1261**	**0.3347**	**0.4404**	**0.0000**	**1,440.3452**	**1,440.3452**	**0.2494**	**0.0000**	**1,446.5784**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**31.25**	**0.00**	**18.91**	**41.62**	**0.00**	**16.61**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	11-1-2020	1-31-2021	2.2173	2.2173
2	2-1-2021	4-30-2021	2.3670	2.3670
3	5-1-2021	7-31-2021	1.2257	1.2257
4	8-1-2021	10-31-2021	2.3691	2.3691
5	11-1-2021	1-31-2022	3.2968	3.2968
6	2-1-2022	4-30-2022	2.9907	2.9907
7	5-1-2022	7-31-2022	2.6197	2.6197
8	8-1-2022	10-31-2022	2.8954	2.8954

9	**11-1-2022**	**1-31-2023**	1.3901	1.3901
		Highest	3.2968	3.2968

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2397	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Energy	0.0192	0.1747	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	1,609.7555	1,609.7555	0.0374	0.0110	1,613.9600
Mobile	0.3059	1.5012	4.5599	0.0197	1.8442	0.0146	1.8588	0.4942	0.0136	0.5078	0.0000	1,820.7965	1,820.7965	0.0807	0.0000	1,822.8141
Offroad	0.0568	0.5347	0.7406	1.0000e-003		0.0286	0.0286		0.0263	0.0263	0.0000	87.7258	87.7258	0.0284	0.0000	88.4351
Waste						0.0000	0.0000		0.0000	0.0000	65.8137	0.0000	65.8137	3.8895	0.0000	163.0507
Water						0.0000	0.0000		0.0000	0.0000	21.6719	337.8355	359.5073	2.2339	0.0543	431.5491
Total	**1.6216**	**2.2107**	**5.4562**	**0.0217**	**1.8442**	**0.0566**	**1.9007**	**0.4942**	**0.0532**	**0.5474**	**87.4856**	**3,856.1308**	**3,943.6163**	**6.2699**	**0.0653**	**4,119.8276**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2397	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Energy	0.0192	0.1747	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	1,609.7555	1,609.7555	0.0374	0.0110	1,613.9600
Mobile	0.3059	1.5012	4.5599	0.0197	1.8442	0.0146	1.8588	0.4942	0.0136	0.5078	0.0000	1,820.7965	1,820.7965	0.0807	0.0000	1,822.8141
Offroad	0.0568	0.5347	0.7406	1.0000e-003		0.0286	0.0286		0.0263	0.0263	0.0000	87.7258	87.7258	0.0284	0.0000	88.4351
Waste						0.0000	0.0000		0.0000	0.0000	65.8137	0.0000	65.8137	3.8895	0.0000	163.0507
Water						0.0000	0.0000		0.0000	0.0000	21.6719	337.8355	359.5073	2.2339	0.0543	431.5491
Total	**1.6216**	**2.2107**	**5.4562**	**0.0217**	**1.8442**	**0.0566**	**1.9007**	**0.4942**	**0.0532**	**0.5474**	**87.4856**	**3,856.1308**	**3,943.6163**	**6.2699**	**0.0653**	**4,119.8276**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Mid Valley Water Facility Unmitigated - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2020	11/30/2020	5	21	
2	Grading	Grading	12/1/2020	5/31/2021	5	130	
3	Perimeter Walls Construction	Building Construction	7/1/2021	7/30/2021	5	22	
4	Paving & Site Infrastructure	Paving	8/1/2021	8/21/2021	5	15	
5	Street Improvement of Hazeltine Avenue	Building Construction	9/1/2022	1/30/2023	5	108	
6	Architectural Coating	Architectural Coating	9/1/2022	10/30/2022	5	42	
7	Trenching & Underground Utilities	Trenching	7/1/2021	7/30/2021	5	22	
8	Office Building & Staff Parking	Building Construction	9/1/2021	5/31/2022	5	195	
9	Water Distribution Shop and Maintenance Building	Building Construction	9/1/2021	7/30/2022	5	238	
10	Department Fleet Vehicles Parking	Building Construction	9/1/2021	8/31/2022	5	261	
11	Supply Chain Services Warehouse	Building Construction	9/1/2021	8/31/2022	5	261	
12	Fleet Maintenance Building and CNG Dispensing Area	Building Construction	9/1/2021	7/30/2022	5	238	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.57

Acres of Paving: 9.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 444,000; Non-Residential Outdoor: 148,000; Striped Parking Area: 24,540 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Office Building & Staff Parking	Cranes	1	4.00	231	0.29
Office Building & Staff Parking	Forklifts	2	6.00	89	0.20
Office Building & Staff Parking	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Office Building & Staff Parking	Forklifts	2	7.00	89	0.20
Office Building & Staff Parking	Generator Sets	1	8.00	84	0.74
Office Building & Staff Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Office Building & Staff Parking	Welders	3	8.00	46	0.45
Water Distribution Shop and Maintenance Building	Cranes	1	8.00	231	0.29
Water Distribution Shop and Maintenance Building	Forklifts	2	7.00	89	0.20
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Perimeter Walls Construction	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Perimeter Walls Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Street Improvement of Hazeltine Avenue	Excavators	1	8.00	158	0.38
Street Improvement of Hazeltine Avenue	Graders	1	8.00	187	0.41
Street Improvement of Hazeltine Avenue	Rubber Tired Dozers	1	8.00	247	0.40
Trenching & Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching & Underground Utilities	Plate Compactors	1	8.00	8	0.43
Trenching & Underground Utilities	Trenchers	1	8.00	78	0.50
Water Distribution Shop and Maintenance Building	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Water Distribution Shop and Maintenance Building	Welders	3	8.00	46	0.45
Water Distribution Shop and Maintenance Building	Generator Sets	1	8.00	84	0.74
Department Fleet Vehicles Parking	Cranes	1	8.00	231	0.29
Department Fleet Vehicles Parking	Forklifts	2	7.00	89	0.20

Department Fleet Vehicles Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Department Fleet Vehicles Parking	Welders	3	8.00	46	0.45
Paving & Site Infrastructure	Pavers	2	8.00	130	0.42
Department Fleet Vehicles Parking	Generator Sets	1	8.00	84	0.74
Supply Chain Services Warehouse	Cranes	1	6.00	231	0.29
Architectural Coating	Air Compressors	1	6.00	78	0.48
Supply Chain Services Warehouse	Forklifts	1	6.00	89	0.20
Supply Chain Services Warehouse	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Supply Chain Services Warehouse	Welders	3	8.00	46	0.45
Street Improvement of Hazeltine Avenue	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Supply Chain Services Warehouse	Generator Sets	1	8.00	84	0.74
Perimeter Walls Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Perimeter Walls Construction	Paving Equipment	1	8.00	132	0.36
Fleet Maintenance Building and CNG Dispensing Area	Cranes	1	4.00	231	0.29
Fleet Maintenance Building and CNG Dispensing Area	Forklifts	2	6.00	89	0.20
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Pavers	1	6.00	130	0.42
Fleet Maintenance Building and CNG Dispensing Area	Rollers	1	7.00	80	0.38
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Paving Equipment	1	8.00	132	0.36
Perimeter Walls Construction	Cranes	1	7.00	231	0.29
Street Improvement of Hazeltine Avenue	Cranes	1	7.00	231	0.29
Perimeter Walls Construction	Forklifts	3	8.00	89	0.20
Street Improvement of Hazeltine Avenue	Forklifts	3	8.00	89	0.20
Fleet Maintenance Building and CNG Dispensing Area	Generator Sets	1	8.00	84	0.74

Perimeter Walls Construction	Generator Sets	1	8.00	84	0.74
Street Improvement of Hazeltine Avenue	Generator Sets	1	8.00	84	0.74
Paving & Site Infrastructure	Paving Equipment	2	8.00	132	0.36
Paving & Site Infrastructure	Rollers	2	8.00	80	0.38
Grading	Scrapers	2	8.00	367	0.48
Perimeter Walls Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Welders	1	8.00	46	0.45
Perimeter Walls Construction	Welders	1	8.00	46	0.45
Street Improvement of Hazeltine Avenue	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	16.00	2.00	11,118.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	6.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Infrastructure	6	16.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	44.00	22.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Street Improvement of Hazeltine Avenue	12	16.00	2.00	4,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Department Fleet Vehicles Parking	8	68.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Supply Chain Services Warehouse	7	28.00	16.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fleet Maintenance Building and CNG Dis	11	16.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching & Underground Utilities	4	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Office Building & Staff Parking	12	18.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Water Distribution Shop and Maintenanc	8	48.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1897	0.0000	0.1897	0.1043	0.0000	0.1043	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0428	0.4454	0.2259	4.0000e-004		0.0231	0.0231		0.0212	0.0212	0.0000	35.1022	35.1022	0.0114	0.0000	35.3860
Total	**0.0428**	**0.4454**	**0.2259**	**4.0000e-004**	**0.1897**	**0.0231**	**0.2128**	**0.1043**	**0.0212**	**0.1255**	**0.0000**	**35.1022**	**35.1022**	**0.0114**	**0.0000**	**35.3860**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.2800e-003	6.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5217	0.5217	3.0000e-005	0.0000	0.5225
Worker	8.7000e-004	7.0000e-004	7.7800e-003	2.0000e-005	2.0700e-003	2.0000e-005	2.0900e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.9304	1.9304	6.0000e-005	0.0000	1.9319
Total	**9.5000e-004**	**2.9800e-003**	**8.4000e-003**	**3.0000e-005**	**2.2000e-003**	**3.0000e-005**	**2.2300e-003**	**5.9000e-004**	**3.0000e-005**	**6.2000e-004**	**0.0000**	**2.4521**	**2.4521**	**9.0000e-005**	**0.0000**	**2.4544**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0740	0.0000	0.0740	0.0407	0.0000	0.0407	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0428	0.4454	0.2259	4.0000e-004		0.0231	0.0231		0.0212	0.0212	0.0000	35.1022	35.1022	0.0114	0.0000	35.3860
Total	**0.0428**	**0.4454**	**0.2259**	**4.0000e-004**	**0.0740**	**0.0231**	**0.0971**	**0.0407**	**0.0212**	**0.0619**	**0.0000**	**35.1022**	**35.1022**	**0.0114**	**0.0000**	**35.3860**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.2800e-003	6.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5217	0.5217	3.0000e-005	0.0000	0.5225
Worker	8.7000e-004	7.0000e-004	7.7800e-003	2.0000e-005	2.0700e-003	2.0000e-005	2.0900e-003	5.5000e-004	2.0000e-005	5.7000e-004	0.0000	1.9304	1.9304	6.0000e-005	0.0000	1.9319
Total	**9.5000e-004**	**2.9800e-003**	**8.4000e-003**	**3.0000e-005**	**2.2000e-003**	**3.0000e-005**	**2.2300e-003**	**5.9000e-004**	**3.0000e-005**	**6.2000e-004**	**0.0000**	**2.4521**	**2.4521**	**9.0000e-005**	**0.0000**	**2.4544**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0727	0.0000	0.0727	0.0384	0.0000	0.0384	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0508	0.5737	0.3562	6.9000e-004		0.0252	0.0252		0.0232	0.0232	0.0000	60.5772	60.5772	0.0196	0.0000	61.0670
Total	**0.0508**	**0.5737**	**0.3562**	**6.9000e-004**	**0.0727**	**0.0252**	**0.0979**	**0.0384**	**0.0232**	**0.0616**	**0.0000**	**60.5772**	**60.5772**	**0.0196**	**0.0000**	**61.0670**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.6800e-003	0.2921	0.0644	7.7000e-004	0.0760	9.1000e-004	0.0769	0.0192	8.7000e-004	0.0200	0.0000	75.8076	75.8076	5.2800e-003	0.0000	75.9396
Vendor	8.0000e-005	2.4900e-003	6.7000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5714	0.5714	4.0000e-005	0.0000	0.5723
Worker	8.5000e-004	6.8000e-004	7.5700e-003	2.0000e-005	2.0200e-003	2.0000e-005	2.0300e-003	5.4000e-004	2.0000e-005	5.5000e-004	0.0000	1.8793	1.8793	6.0000e-005	0.0000	1.8808
Total	**9.6100e-003**	**0.2952**	**0.0726**	**8.0000e-004**	**0.0782**	**9.4000e-004**	**0.0791**	**0.0197**	**9.0000e-004**	**0.0206**	**0.0000**	**78.2583**	**78.2583**	**5.3800e-003**	**0.0000**	**78.3927**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0284	0.0000	0.0284	0.0150	0.0000	0.0150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0508	0.5737	0.3562	6.9000e-004		0.0252	0.0252		0.0232	0.0232	0.0000	60.5771	60.5771	0.0196	0.0000	61.0669
Total	**0.0508**	**0.5737**	**0.3562**	**6.9000e-004**	**0.0284**	**0.0252**	**0.0536**	**0.0150**	**0.0232**	**0.0382**	**0.0000**	**60.5771**	**60.5771**	**0.0196**	**0.0000**	**61.0669**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.6800e-003	0.2921	0.0644	7.7000e-004	0.0760	9.1000e-004	0.0769	0.0192	8.7000e-004	0.0200	0.0000	75.8076	75.8076	5.2800e-003	0.0000	75.9396
Vendor	8.0000e-005	2.4900e-003	6.7000e-004	1.0000e-005	1.4000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.5714	0.5714	4.0000e-005	0.0000	0.5723
Worker	8.5000e-004	6.8000e-004	7.5700e-003	2.0000e-005	2.0200e-003	2.0000e-005	2.0300e-003	5.4000e-004	2.0000e-005	5.5000e-004	0.0000	1.8793	1.8793	6.0000e-005	0.0000	1.8808
Total	**9.6100e-003**	**0.2952**	**0.0726**	**8.0000e-004**	**0.0782**	**9.4000e-004**	**0.0791**	**0.0197**	**9.0000e-004**	**0.0206**	**0.0000**	**78.2583**	**78.2583**	**5.3800e-003**	**0.0000**	**78.3927**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3257	0.0000	0.3257	0.1775	0.0000	0.1775	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2220	2.4686	1.5979	3.2100e-003		0.1066	0.1066		0.0981	0.0981	0.0000	281.8756	281.8756	0.0912	0.0000	284.1548
Total	**0.2220**	**2.4686**	**1.5979**	**3.2100e-003**	**0.3257**	**0.1066**	**0.4323**	**0.1775**	**0.0981**	**0.2756**	**0.0000**	**281.8756**	**281.8756**	**0.0912**	**0.0000**	**284.1548**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0385	1.2666	0.2953	3.5400e-003	0.0914	3.7900e-003	0.0951	0.0247	3.6300e-003	0.0283	0.0000	348.7875	348.7875	0.0242	0.0000	349.3927
Vendor	3.3000e-004	0.0106	2.8600e-003	3.0000e-005	6.7000e-004	2.0000e-005	7.0000e-004	1.9000e-004	2.0000e-005	2.2000e-004	0.0000	2.6375	2.6375	1.6000e-004	0.0000	2.6416
Worker	3.6800e-003	2.8700e-003	0.0324	9.0000e-005	9.3800e-003	8.0000e-005	9.4600e-003	2.4900e-003	7.0000e-005	2.5600e-003	0.0000	8.4651	8.4651	2.5000e-004	0.0000	8.4714
Total	**0.0426**	**1.2800**	**0.3306**	**3.6600e-003**	**0.1014**	**3.8900e-003**	**0.1053**	**0.0274**	**3.7200e-003**	**0.0311**	**0.0000**	**359.8901**	**359.8901**	**0.0246**	**0.0000**	**360.5056**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1270	0.0000	0.1270	0.0692	0.0000	0.0692	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2220	2.4686	1.5979	3.2100e-003		0.1066	0.1066		0.0981	0.0981	0.0000	281.8753	281.8753	0.0912	0.0000	284.1544
Total	**0.2220**	**2.4686**	**1.5979**	**3.2100e-003**	**0.1270**	**0.1066**	**0.2336**	**0.0692**	**0.0981**	**0.1673**	**0.0000**	**281.8753**	**281.8753**	**0.0912**	**0.0000**	**284.1544**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0385	1.2666	0.2953	3.5400e-003	0.0914	3.7900e-003	0.0951	0.0247	3.6300e-003	0.0283	0.0000	348.7875	348.7875	0.0242	0.0000	349.3927
Vendor	3.3000e-004	0.0106	2.8600e-003	3.0000e-005	6.7000e-004	2.0000e-005	7.0000e-004	1.9000e-004	2.0000e-005	2.2000e-004	0.0000	2.6375	2.6375	1.6000e-004	0.0000	2.6416
Worker	3.6800e-003	2.8700e-003	0.0324	9.0000e-005	9.3800e-003	8.0000e-005	9.4600e-003	2.4900e-003	7.0000e-005	2.5600e-003	0.0000	8.4651	8.4651	2.5000e-004	0.0000	8.4714
Total	**0.0426**	**1.2800**	**0.3306**	**3.6600e-003**	**0.1014**	**3.8900e-003**	**0.1053**	**0.0274**	**3.7200e-003**	**0.0311**	**0.0000**	**359.8901**	**359.8901**	**0.0246**	**0.0000**	**360.5056**

3.4 Perimeter Walls Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0307	0.2838	0.2769	5.2000e-004		0.0147	0.0147		0.0139	0.0139	0.0000	44.9362	44.9362	0.0108	0.0000	45.2052
Total	**0.0307**	**0.2838**	**0.2769**	**5.2000e-004**		**0.0147**	**0.0147**		**0.0139**	**0.0139**	**0.0000**	**44.9362**	**44.9362**	**0.0108**	**0.0000**	**45.2052**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	4.3400e-003	1.1800e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.8000e-004	0.0000	1.0846	1.0846	7.0000e-005	0.0000	1.0863
Worker	2.8000e-004	2.2000e-004	2.5000e-003	1.0000e-005	1.9800e-003	1.0000e-005	1.9800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	0.6527	0.6527	2.0000e-005	0.0000	0.6532
Total	**4.2000e-004**	**4.5600e-003**	**3.6800e-003**	**2.0000e-005**	**2.6500e-003**	**2.0000e-005**	**2.6600e-003**	**6.8000e-004**	**2.0000e-005**	**6.9000e-004**	**0.0000**	**1.7373**	**1.7373**	**9.0000e-005**	**0.0000**	**1.7394**

3.4 Perimeter Walls Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0307	0.2838	0.2769	5.2000e-004		0.0147	0.0147		0.0139	0.0139	0.0000	44.9362	44.9362	0.0108	0.0000	45.2052
Total	**0.0307**	**0.2838**	**0.2769**	**5.2000e-004**		**0.0147**	**0.0147**		**0.0139**	**0.0139**	**0.0000**	**44.9362**	**44.9362**	**0.0108**	**0.0000**	**45.2052**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	4.3400e-003	1.1800e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.8000e-004	0.0000	1.0846	1.0846	7.0000e-005	0.0000	1.0863
Worker	2.8000e-004	2.2000e-004	2.5000e-003	1.0000e-005	1.9800e-003	1.0000e-005	1.9800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	0.6527	0.6527	2.0000e-005	0.0000	0.6532
Total	**4.2000e-004**	**4.5600e-003**	**3.6800e-003**	**2.0000e-005**	**2.6500e-003**	**2.0000e-005**	**2.6600e-003**	**6.8000e-004**	**2.0000e-005**	**6.9000e-004**	**0.0000**	**1.7373**	**1.7373**	**9.0000e-005**	**0.0000**	**1.7394**

3.5 Paving & Site Infrastructure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4200e-003	0.0969	0.1099	1.7000e-004		5.0800e-003	5.0800e-003		4.6800e-003	4.6800e-003	0.0000	15.0176	15.0176	4.8600e-003	0.0000	15.1390
Paving	5.8200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0969**	**0.1099**	**1.7000e-004**		**5.0800e-003**	**5.0800e-003**		**4.6800e-003**	**4.6800e-003**	**0.0000**	**15.0176**	**15.0176**	**4.8600e-003**	**0.0000**	**15.1390**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	2.9600e-003	8.0000e-004	1.0000e-005	1.9000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7395	0.7395	5.0000e-005	0.0000	0.7406
Worker	5.2000e-004	4.0000e-004	4.5400e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1867	1.1867	3.0000e-005	0.0000	1.1876
Total	**6.1000e-004**	**3.3600e-003**	**5.3400e-003**	**2.0000e-005**	**1.5000e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-004**	**2.0000e-005**	**4.2000e-004**	**0.0000**	**1.9262**	**1.9262**	**8.0000e-005**	**0.0000**	**1.9282**

3.5 Paving & Site Infrastructure - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4200e-003	0.0969	0.1099	1.7000e-004		5.0800e-003	5.0800e-003		4.6800e-003	4.6800e-003	0.0000	15.0176	15.0176	4.8600e-003	0.0000	15.1390
Paving	5.8200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0969**	**0.1099**	**1.7000e-004**		**5.0800e-003**	**5.0800e-003**		**4.6800e-003**	**4.6800e-003**	**0.0000**	**15.0176**	**15.0176**	**4.8600e-003**	**0.0000**	**15.1390**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.0000e-005	2.9600e-003	8.0000e-004	1.0000e-005	1.9000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.7395	0.7395	5.0000e-005	0.0000	0.7406
Worker	5.2000e-004	4.0000e-004	4.5400e-003	1.0000e-005	1.3100e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1867	1.1867	3.0000e-005	0.0000	1.1876
Total	**6.1000e-004**	**3.3600e-003**	**5.3400e-003**	**2.0000e-005**	**1.5000e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-004**	**2.0000e-005**	**4.2000e-004**	**0.0000**	**1.9262**	**1.9262**	**8.0000e-005**	**0.0000**	**1.9282**

3.6 Street Improvement of Hazeltine Avenue - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1402	1.3951	1.1206	2.1100e-003		0.0658	0.0658		0.0613	0.0613	0.0000	182.9336	182.9336	0.0507	0.0000	184.2014
Total	**0.1402**	**1.3951**	**1.1206**	**2.1100e-003**		**0.0658**	**0.0658**		**0.0613**	**0.0613**	**0.0000**	**182.9336**	**182.9336**	**0.0507**	**0.0000**	**184.2014**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0129	0.4139	0.1028	1.2300e-003	0.0327	1.1600e-003	0.0339	8.8400e-003	1.1100e-003	9.9500e-003	0.0000	121.3539	121.3539	8.3900e-003	0.0000	121.5637
Vendor	2.5000e-004	8.1600e-003	2.2000e-003	2.0000e-005	5.5000e-004	2.0000e-005	5.6000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	2.1257	2.1257	1.3000e-004	0.0000	2.1289
Worker	2.8100e-003	2.1100e-003	0.0243	7.0000e-005	7.6300e-003	6.0000e-005	7.6900e-003	2.0300e-003	6.0000e-005	2.0800e-003	0.0000	6.6409	6.6409	1.8000e-004	0.0000	6.6455
Total	**0.0160**	**0.4242**	**0.1293**	**1.3200e-003**	**0.0409**	**1.2400e-003**	**0.0421**	**0.0110**	**1.1800e-003**	**0.0122**	**0.0000**	**130.1205**	**130.1205**	**8.7000e-003**	**0.0000**	**130.3381**

3.6 Street Improvement of Hazeltine Avenue - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1402	1.3951	1.1206	2.1100e-003		0.0658	0.0658		0.0613	0.0613	0.0000	182.9334	182.9334	0.0507	0.0000	184.2012
Total	**0.1402**	**1.3951**	**1.1206**	**2.1100e-003**		**0.0658**	**0.0658**		**0.0613**	**0.0613**	**0.0000**	**182.9334**	**182.9334**	**0.0507**	**0.0000**	**184.2012**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0129	0.4139	0.1028	1.2300e-003	0.0327	1.1600e-003	0.0339	8.8400e-003	1.1100e-003	9.9500e-003	0.0000	121.3539	121.3539	8.3900e-003	0.0000	121.5637
Vendor	2.5000e-004	8.1600e-003	2.2000e-003	2.0000e-005	5.5000e-004	2.0000e-005	5.6000e-004	1.6000e-004	1.0000e-005	1.7000e-004	0.0000	2.1257	2.1257	1.3000e-004	0.0000	2.1289
Worker	2.8100e-003	2.1100e-003	0.0243	7.0000e-005	7.6300e-003	6.0000e-005	7.6900e-003	2.0300e-003	6.0000e-005	2.0800e-003	0.0000	6.6409	6.6409	1.8000e-004	0.0000	6.6455
Total	**0.0160**	**0.4242**	**0.1293**	**1.3200e-003**	**0.0409**	**1.2400e-003**	**0.0421**	**0.0110**	**1.1800e-003**	**0.0122**	**0.0000**	**130.1205**	**130.1205**	**8.7000e-003**	**0.0000**	**130.3381**

3.6 Street Improvement of Hazeltine Avenue - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.2970	0.2639	5.1000e-004		0.0134	0.0134		0.0125	0.0125	0.0000	44.1624	44.1624	0.0122	0.0000	44.4675
Total	**0.0303**	**0.2970**	**0.2639**	**5.1000e-004**		**0.0134**	**0.0134**		**0.0125**	**0.0125**	**0.0000**	**44.1624**	**44.1624**	**0.0122**	**0.0000**	**44.4675**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0500e-003	0.0656	0.0225	2.8000e-004	0.0275	1.2000e-004	0.0276	6.9500e-003	1.1000e-004	7.0600e-003	0.0000	28.0724	28.0724	1.8800e-003	0.0000	28.1194
Vendor	5.0000e-005	1.4900e-003	4.8000e-004	1.0000e-005	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.4970	0.4970	3.0000e-005	0.0000	0.4977
Worker	6.4000e-004	4.6000e-004	5.3800e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5443	1.5443	4.0000e-005	0.0000	1.5453
Total	**2.7400e-003**	**0.0675**	**0.0284**	**3.1000e-004**	**0.0295**	**1.3000e-004**	**0.0296**	**7.4800e-003**	**1.2000e-004**	**7.6000e-003**	**0.0000**	**30.1137**	**30.1137**	**1.9500e-003**	**0.0000**	**30.1624**

3.6 Street Improvement of Hazeltine Avenue - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.2970	0.2639	5.1000e-004		0.0134	0.0134		0.0125	0.0125	0.0000	44.1624	44.1624	0.0122	0.0000	44.4674
Total	**0.0303**	**0.2970**	**0.2639**	**5.1000e-004**		**0.0134**	**0.0134**		**0.0125**	**0.0125**	**0.0000**	**44.1624**	**44.1624**	**0.0122**	**0.0000**	**44.4674**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0500e-003	0.0656	0.0225	2.8000e-004	0.0275	1.2000e-004	0.0276	6.9500e-003	1.1000e-004	7.0600e-003	0.0000	28.0724	28.0724	1.8800e-003	0.0000	28.1194
Vendor	5.0000e-005	1.4900e-003	4.8000e-004	1.0000e-005	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.4970	0.4970	3.0000e-005	0.0000	0.4977
Worker	6.4000e-004	4.6000e-004	5.3800e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.5443	1.5443	4.0000e-005	0.0000	1.5453
Total	**2.7400e-003**	**0.0675**	**0.0284**	**3.1000e-004**	**0.0295**	**1.3000e-004**	**0.0296**	**7.4800e-003**	**1.2000e-004**	**7.6000e-003**	**0.0000**	**30.1137**	**30.1137**	**1.9500e-003**	**0.0000**	**30.1624**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4288					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-003	0.0296	0.0381	6.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	5.3618	5.3618	3.5000e-004	0.0000	5.3706
Total	**1.4331**	**0.0296**	**0.0381**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**5.3618**	**5.3618**	**3.5000e-004**	**0.0000**	**5.3706**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3500e-003	0.0433	0.0117	1.2000e-004	2.9100e-003	8.0000e-005	2.9900e-003	8.4000e-004	8.0000e-005	9.2000e-004	0.0000	11.2881	11.2881	6.7000e-004	0.0000	11.3050
Worker	3.7300e-003	2.8000e-003	0.0322	1.0000e-004	0.0101	8.0000e-005	0.0102	2.6900e-003	7.0000e-005	2.7600e-003	0.0000	8.8164	8.8164	2.4000e-004	0.0000	8.8225
Total	**5.0800e-003**	**0.0461**	**0.0439**	**2.2000e-004**	**0.0130**	**1.6000e-004**	**0.0132**	**3.5300e-003**	**1.5000e-004**	**3.6800e-003**	**0.0000**	**20.1045**	**20.1045**	**9.1000e-004**	**0.0000**	**20.1274**

3.7 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4288					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-003	0.0296	0.0381	6.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	5.3618	5.3618	3.5000e-004	0.0000	5.3706
Total	**1.4331**	**0.0296**	**0.0381**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.7200e-003**	**1.7200e-003**	**0.0000**	**5.3618**	**5.3618**	**3.5000e-004**	**0.0000**	**5.3706**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3500e-003	0.0433	0.0117	1.2000e-004	2.9100e-003	8.0000e-005	2.9900e-003	8.4000e-004	8.0000e-005	9.2000e-004	0.0000	11.2881	11.2881	6.7000e-004	0.0000	11.3050
Worker	3.7300e-003	2.8000e-003	0.0322	1.0000e-004	0.0101	8.0000e-005	0.0102	2.6900e-003	7.0000e-005	2.7600e-003	0.0000	8.8164	8.8164	2.4000e-004	0.0000	8.8225
Total	**5.0800e-003**	**0.0461**	**0.0439**	**2.2000e-004**	**0.0130**	**1.6000e-004**	**0.0132**	**3.5300e-003**	**1.5000e-004**	**3.6800e-003**	**0.0000**	**20.1045**	**20.1045**	**9.1000e-004**	**0.0000**	**20.1274**

3.8 Trenching & Underground Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7700e-003	0.0831	0.0807	1.1000e-004		5.3700e-003	5.3700e-003		4.9500e-003	4.9500e-003	0.0000	9.6118	9.6118	3.0300e-003	0.0000	9.6877
Total	**8.7700e-003**	**0.0831**	**0.0807**	**1.1000e-004**		**5.3700e-003**	**5.3700e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**9.6118**	**9.6118**	**3.0300e-003**	**0.0000**	**9.6877**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	2.1700e-003	5.9000e-004	1.0000e-005	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5423	0.5423	3.0000e-005	0.0000	0.5431
Worker	4.7000e-004	3.7000e-004	4.1600e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0878	1.0878	3.0000e-005	0.0000	1.0886
Total	**5.4000e-004**	**2.5400e-003**	**4.7500e-003**	**2.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.6301**	**1.6301**	**6.0000e-005**	**0.0000**	**1.6317**

3.8 Trenching & Underground Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.7700e-003	0.0831	0.0807	1.1000e-004		5.3700e-003	5.3700e-003		4.9500e-003	4.9500e-003	0.0000	9.6118	9.6118	3.0300e-003	0.0000	9.6876
Total	**8.7700e-003**	**0.0831**	**0.0807**	**1.1000e-004**		**5.3700e-003**	**5.3700e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**9.6118**	**9.6118**	**3.0300e-003**	**0.0000**	**9.6876**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	2.1700e-003	5.9000e-004	1.0000e-005	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.5423	0.5423	3.0000e-005	0.0000	0.5431
Worker	4.7000e-004	3.7000e-004	4.1600e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2200e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0878	1.0878	3.0000e-005	0.0000	1.0886
Total	**5.4000e-004**	**2.5400e-003**	**4.7500e-003**	**2.0000e-005**	**1.3500e-003**	**1.0000e-005**	**1.3600e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.6301**	**1.6301**	**6.0000e-005**	**0.0000**	**1.6317**

3.9 Office Building & Staff Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1059	0.8432	0.8731	1.3500e-003		0.0470	0.0470		0.0446	0.0446	0.0000	113.0989	113.0989	0.0250	0.0000	113.7240
Total	**0.1059**	**0.8432**	**0.8731**	**1.3500e-003**		**0.0470**	**0.0470**		**0.0446**	**0.0446**	**0.0000**	**113.0989**	**113.0989**	**0.0250**	**0.0000**	**113.7240**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6400e-003	0.0521	0.0141	1.3000e-004	3.3300e-003	1.1000e-004	3.4300e-003	9.6000e-004	1.0000e-004	1.0600e-003	0.0000	13.0150	13.0150	8.0000e-004	0.0000	13.0350
Worker	3.4100e-003	2.6500e-003	0.0300	9.0000e-005	8.6800e-003	7.0000e-005	8.7500e-003	2.3100e-003	7.0000e-005	2.3700e-003	0.0000	7.8322	7.8322	2.3000e-004	0.0000	7.8380
Total	**5.0500e-003**	**0.0548**	**0.0441**	**2.2000e-004**	**0.0120**	**1.8000e-004**	**0.0122**	**3.2700e-003**	**1.7000e-004**	**3.4300e-003**	**0.0000**	**20.8472**	**20.8472**	**1.0300e-003**	**0.0000**	**20.8730**

3.9 Office Building & Staff Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1059	0.8432	0.8731	1.3500e-003		0.0470	0.0470		0.0446	0.0446	0.0000	113.0987	113.0987	0.0250	0.0000	113.7238
Total	**0.1059**	**0.8432**	**0.8731**	**1.3500e-003**		**0.0470**	**0.0470**		**0.0446**	**0.0446**	**0.0000**	**113.0987**	**113.0987**	**0.0250**	**0.0000**	**113.7238**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6400e-003	0.0521	0.0141	1.3000e-004	3.3300e-003	1.1000e-004	3.4300e-003	9.6000e-004	1.0000e-004	1.0600e-003	0.0000	13.0150	13.0150	8.0000e-004	0.0000	13.0350
Worker	3.4100e-003	2.6500e-003	0.0300	9.0000e-005	8.6800e-003	7.0000e-005	8.7500e-003	2.3100e-003	7.0000e-005	2.3700e-003	0.0000	7.8322	7.8322	2.3000e-004	0.0000	7.8380
Total	**5.0500e-003**	**0.0548**	**0.0441**	**2.2000e-004**	**0.0120**	**1.8000e-004**	**0.0122**	**3.2700e-003**	**1.7000e-004**	**3.4300e-003**	**0.0000**	**20.8472**	**20.8472**	**1.0300e-003**	**0.0000**	**20.8730**

3.9 Office Building & Staff Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1160	0.9333	1.0493	1.6400e-003		0.0482	0.0482		0.0458	0.0458	0.0000	137.5654	137.5654	0.0300	0.0000	138.3152
Total	**0.1160**	**0.9333**	**1.0493**	**1.6400e-003**		**0.0482**	**0.0482**		**0.0458**	**0.0458**	**0.0000**	**137.5654**	**137.5654**	**0.0300**	**0.0000**	**138.3152**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8700e-003	0.0602	0.0163	1.6000e-004	4.0400e-003	1.1000e-004	4.1600e-003	1.1700e-003	1.1000e-004	1.2800e-003	0.0000	15.6861	15.6861	9.4000e-004	0.0000	15.7095
Worker	3.8900e-003	2.9100e-003	0.0336	1.0000e-004	0.0106	8.0000e-005	0.0106	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	9.1885	9.1885	2.5000e-004	0.0000	9.1948
Total	**5.7600e-003**	**0.0631**	**0.0498**	**2.6000e-004**	**0.0146**	**1.9000e-004**	**0.0148**	**3.9700e-003**	**1.9000e-004**	**4.1600e-003**	**0.0000**	**24.8746**	**24.8746**	**1.1900e-003**	**0.0000**	**24.9044**

3.9 Office Building & Staff Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1160	0.9333	1.0493	1.6400e-003		0.0482	0.0482		0.0458	0.0458	0.0000	137.5652	137.5652	0.0300	0.0000	138.3150
Total	**0.1160**	**0.9333**	**1.0493**	**1.6400e-003**		**0.0482**	**0.0482**		**0.0458**	**0.0458**	**0.0000**	**137.5652**	**137.5652**	**0.0300**	**0.0000**	**138.3150**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8700e-003	0.0602	0.0163	1.6000e-004	4.0400e-003	1.1000e-004	4.1600e-003	1.1700e-003	1.1000e-004	1.2800e-003	0.0000	15.6861	15.6861	9.4000e-004	0.0000	15.7095
Worker	3.8900e-003	2.9100e-003	0.0336	1.0000e-004	0.0106	8.0000e-005	0.0106	2.8000e-003	8.0000e-005	2.8800e-003	0.0000	9.1885	9.1885	2.5000e-004	0.0000	9.1948
Total	**5.7600e-003**	**0.0631**	**0.0498**	**2.6000e-004**	**0.0146**	**1.9000e-004**	**0.0148**	**3.9700e-003**	**1.9000e-004**	**4.1600e-003**	**0.0000**	**24.8746**	**24.8746**	**1.1900e-003**	**0.0000**	**24.9044**

3.10 Water Distribution Shop and Maintenance Building - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7052	0.6408	1.1000e-003		0.0360	0.0360		0.0345	0.0345	0.0000	91.3654	91.3654	0.0180	0.0000	91.8148
Total	**0.0900**	**0.7052**	**0.6408**	**1.1000e-003**		**0.0360**	**0.0360**		**0.0345**	**0.0345**	**0.0000**	**91.3654**	**91.3654**	**0.0180**	**0.0000**	**91.8148**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2800e-003	0.1042	0.0283	2.7000e-004	6.6500e-003	2.1000e-004	6.8600e-003	1.9200e-003	2.0000e-004	2.1200e-003	0.0000	26.0300	26.0300	1.6000e-003	0.0000	26.0700
Worker	9.0900e-003	7.0700e-003	0.0799	2.3000e-004	0.0231	1.9000e-004	0.0233	6.1500e-003	1.8000e-004	6.3200e-003	0.0000	20.8859	20.8859	6.1000e-004	0.0000	20.9013
Total	**0.0124**	**0.1113**	**0.1081**	**5.0000e-004**	**0.0298**	**4.0000e-004**	**0.0302**	**8.0700e-003**	**3.8000e-004**	**8.4400e-003**	**0.0000**	**46.9160**	**46.9160**	**2.2100e-003**	**0.0000**	**46.9712**

3.10 Water Distribution Shop and Maintenance Building - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7052	0.6408	1.1000e-003		0.0360	0.0360		0.0345	0.0345	0.0000	91.3653	91.3653	0.0180	0.0000	91.8147
Total	**0.0900**	**0.7052**	**0.6408**	**1.1000e-003**		**0.0360**	**0.0360**		**0.0345**	**0.0345**	**0.0000**	**91.3653**	**91.3653**	**0.0180**	**0.0000**	**91.8147**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.2800e-003	0.1042	0.0283	2.7000e-004	6.6500e-003	2.1000e-004	6.8600e-003	1.9200e-003	2.0000e-004	2.1200e-003	0.0000	26.0300	26.0300	1.6000e-003	0.0000	26.0700
Worker	9.0900e-003	7.0700e-003	0.0799	2.3000e-004	0.0231	1.9000e-004	0.0233	6.1500e-003	1.8000e-004	6.3200e-003	0.0000	20.8859	20.8859	6.1000e-004	0.0000	20.9013
Total	**0.0124**	**0.1113**	**0.1081**	**5.0000e-004**	**0.0298**	**4.0000e-004**	**0.0302**	**8.0700e-003**	**3.8000e-004**	**8.4400e-003**	**0.0000**	**46.9160**	**46.9160**	**2.2100e-003**	**0.0000**	**46.9712**

3.10 Water Distribution Shop and Maintenance Building - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1392	1.0953	1.0765	1.8800e-003		0.0527	0.0527		0.0505	0.0505	0.0000	155.7601	155.7601	0.0301	0.0000	156.5113
Total	**0.1392**	**1.0953**	**1.0765**	**1.8800e-003**		**0.0527**	**0.0527**		**0.0505**	**0.0505**	**0.0000**	**155.7601**	**155.7601**	**0.0301**	**0.0000**	**156.5113**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2500e-003	0.1688	0.0456	4.5000e-004	0.0113	3.2000e-004	0.0117	3.2700e-003	3.0000e-004	3.5800e-003	0.0000	43.9797	43.9797	2.6300e-003	0.0000	44.0454
Worker	0.0145	0.0109	0.1254	3.8000e-004	0.0395	3.1000e-004	0.0398	0.0105	2.9000e-004	0.0108	0.0000	34.3496	34.3496	9.5000e-004	0.0000	34.3732
Total	**0.0198**	**0.1797**	**0.1710**	**8.3000e-004**	**0.0508**	**6.3000e-004**	**0.0514**	**0.0138**	**5.9000e-004**	**0.0144**	**0.0000**	**78.3292**	**78.3292**	**3.5800e-003**	**0.0000**	**78.4186**

3.10 Water Distribution Shop and Maintenance Building - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1392	1.0953	1.0765	1.8800e-003		0.0527	0.0527		0.0505	0.0505	0.0000	155.7599	155.7599	0.0301	0.0000	156.5112
Total	**0.1392**	**1.0953**	**1.0765**	**1.8800e-003**		**0.0527**	**0.0527**		**0.0505**	**0.0505**	**0.0000**	**155.7599**	**155.7599**	**0.0301**	**0.0000**	**156.5112**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2500e-003	0.1688	0.0456	4.5000e-004	0.0113	3.2000e-004	0.0117	3.2700e-003	3.0000e-004	3.5800e-003	0.0000	43.9797	43.9797	2.6300e-003	0.0000	44.0454
Worker	0.0145	0.0109	0.1254	3.8000e-004	0.0395	3.1000e-004	0.0398	0.0105	2.9000e-004	0.0108	0.0000	34.3496	34.3496	9.5000e-004	0.0000	34.3732
Total	**0.0198**	**0.1797**	**0.1710**	**8.3000e-004**	**0.0508**	**6.3000e-004**	**0.0514**	**0.0138**	**5.9000e-004**	**0.0144**	**0.0000**	**78.3292**	**78.3292**	**3.5800e-003**	**0.0000**	**78.4186**

3.11 Department Fleet Vehicles Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7052	0.6408	1.1000e-003		0.0360	0.0360		0.0345	0.0345	0.0000	91.3654	91.3654	0.0180	0.0000	91.8148
Total	**0.0900**	**0.7052**	**0.6408**	**1.1000e-003**		**0.0360**	**0.0360**		**0.0345**	**0.0345**	**0.0000**	**91.3654**	**91.3654**	**0.0180**	**0.0000**	**91.8148**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	0.0174	4.7100e-003	4.0000e-005	1.1100e-003	4.0000e-005	1.1400e-003	3.2000e-004	3.0000e-005	3.5000e-004	0.0000	4.3383	4.3383	2.7000e-004	0.0000	4.3450
Worker	0.0129	0.0100	0.1131	3.3000e-004	0.0328	2.7000e-004	0.0331	8.7100e-003	2.5000e-004	8.9600e-003	0.0000	29.5884	29.5884	8.7000e-004	0.0000	29.6102
Total	**0.0134**	**0.0274**	**0.1179**	**3.7000e-004**	**0.0339**	**3.1000e-004**	**0.0342**	**9.0300e-003**	**2.8000e-004**	**9.3100e-003**	**0.0000**	**33.9267**	**33.9267**	**1.1400e-003**	**0.0000**	**33.9552**

3.11 Department Fleet Vehicles Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0900	0.7052	0.6408	1.1000e-003		0.0360	0.0360		0.0345	0.0345	0.0000	91.3653	91.3653	0.0180	0.0000	91.8147
Total	**0.0900**	**0.7052**	**0.6408**	**1.1000e-003**		**0.0360**	**0.0360**		**0.0345**	**0.0345**	**0.0000**	**91.3653**	**91.3653**	**0.0180**	**0.0000**	**91.8147**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5000e-004	0.0174	4.7100e-003	4.0000e-005	1.1100e-003	4.0000e-005	1.1400e-003	3.2000e-004	3.0000e-005	3.5000e-004	0.0000	4.3383	4.3383	2.7000e-004	0.0000	4.3450
Worker	0.0129	0.0100	0.1131	3.3000e-004	0.0328	2.7000e-004	0.0331	8.7100e-003	2.5000e-004	8.9600e-003	0.0000	29.5884	29.5884	8.7000e-004	0.0000	29.6102
Total	**0.0134**	**0.0274**	**0.1179**	**3.7000e-004**	**0.0339**	**3.1000e-004**	**0.0342**	**9.0300e-003**	**2.8000e-004**	**9.3100e-003**	**0.0000**	**33.9267**	**33.9267**	**1.1400e-003**	**0.0000**	**33.9552**

3.11 Department Fleet Vehicles Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1605	1.2633	1.2416	2.1600e-003		0.0607	0.0607		0.0582	0.0582	0.0000	179.6433	179.6433	0.0347	0.0000	180.5098
Total	**0.1605**	**1.2633**	**1.2416**	**2.1600e-003**		**0.0607**	**0.0607**		**0.0582**	**0.0582**	**0.0000**	**179.6433**	**179.6433**	**0.0347**	**0.0000**	**180.5098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0324	8.7600e-003	9.0000e-005	2.1800e-003	6.0000e-005	2.2400e-003	6.3000e-004	6.0000e-005	6.9000e-004	0.0000	8.4539	8.4539	5.0000e-004	0.0000	8.4665
Worker	0.0237	0.0178	0.2050	6.2000e-004	0.0645	5.1000e-004	0.0650	0.0171	4.7000e-004	0.0176	0.0000	56.1234	56.1234	1.5500e-003	0.0000	56.1620
Total	**0.0247**	**0.0502**	**0.2137**	**7.1000e-004**	**0.0666**	**5.7000e-004**	**0.0672**	**0.0178**	**5.3000e-004**	**0.0183**	**0.0000**	**64.5773**	**64.5773**	**2.0500e-003**	**0.0000**	**64.6285**

3.11 Department Fleet Vehicles Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1605	1.2633	1.2416	2.1600e-003		0.0607	0.0607		0.0582	0.0582	0.0000	179.6431	179.6431	0.0347	0.0000	180.5095
Total	**0.1605**	**1.2633**	**1.2416**	**2.1600e-003**		**0.0607**	**0.0607**		**0.0582**	**0.0582**	**0.0000**	**179.6431**	**179.6431**	**0.0347**	**0.0000**	**180.5095**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0324	8.7600e-003	9.0000e-005	2.1800e-003	6.0000e-005	2.2400e-003	6.3000e-004	6.0000e-005	6.9000e-004	0.0000	8.4539	8.4539	5.0000e-004	0.0000	8.4665
Worker	0.0237	0.0178	0.2050	6.2000e-004	0.0645	5.1000e-004	0.0650	0.0171	4.7000e-004	0.0176	0.0000	56.1234	56.1234	1.5500e-003	0.0000	56.1620
Total	**0.0247**	**0.0502**	**0.2137**	**7.1000e-004**	**0.0666**	**5.7000e-004**	**0.0672**	**0.0178**	**5.3000e-004**	**0.0183**	**0.0000**	**64.5773**	**64.5773**	**2.0500e-003**	**0.0000**	**64.6285**

3.12 Supply Chain Services Warehouse - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0798	0.6000	0.5676	9.7000e-004		0.0301	0.0301		0.0291	0.0291	0.0000	79.8810	79.8810	0.0143	0.0000	80.2375
Total	**0.0798**	**0.6000**	**0.5676**	**9.7000e-004**		**0.0301**	**0.0301**		**0.0291**	**0.0291**	**0.0000**	**79.8810**	**79.8810**	**0.0143**	**0.0000**	**80.2375**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0695	0.0188	1.8000e-004	4.4300e-003	1.4000e-004	4.5800e-003	1.2800e-003	1.4000e-004	1.4200e-003	0.0000	17.3534	17.3534	1.0600e-003	0.0000	17.3800
Worker	5.3000e-003	4.1300e-003	0.0466	1.3000e-004	0.0135	1.1000e-004	0.0136	3.5900e-003	1.0000e-004	3.6900e-003	0.0000	12.1835	12.1835	3.6000e-004	0.0000	12.1924
Total	**7.4900e-003**	**0.0736**	**0.0654**	**3.1000e-004**	**0.0179**	**2.5000e-004**	**0.0182**	**4.8700e-003**	**2.4000e-004**	**5.1100e-003**	**0.0000**	**29.5368**	**29.5368**	**1.4200e-003**	**0.0000**	**29.5724**

3.12 Supply Chain Services Warehouse - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0798	0.6000	0.5676	9.7000e-004		0.0301	0.0301		0.0291	0.0291	0.0000	79.8809	79.8809	0.0143	0.0000	80.2374
Total	**0.0798**	**0.6000**	**0.5676**	**9.7000e-004**		**0.0301**	**0.0301**		**0.0291**	**0.0291**	**0.0000**	**79.8809**	**79.8809**	**0.0143**	**0.0000**	**80.2374**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0695	0.0188	1.8000e-004	4.4300e-003	1.4000e-004	4.5800e-003	1.2800e-003	1.4000e-004	1.4200e-003	0.0000	17.3534	17.3534	1.0600e-003	0.0000	17.3800
Worker	5.3000e-003	4.1300e-003	0.0466	1.3000e-004	0.0135	1.1000e-004	0.0136	3.5900e-003	1.0000e-004	3.6900e-003	0.0000	12.1835	12.1835	3.6000e-004	0.0000	12.1924
Total	**7.4900e-003**	**0.0736**	**0.0654**	**3.1000e-004**	**0.0179**	**2.5000e-004**	**0.0182**	**4.8700e-003**	**2.4000e-004**	**5.1100e-003**	**0.0000**	**29.5368**	**29.5368**	**1.4200e-003**	**0.0000**	**29.5724**

3.12 Supply Chain Services Warehouse - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1426	1.0815	1.1008	1.9100e-003		0.0509	0.0509		0.0492	0.0492	0.0000	157.0640	157.0640	0.0274	0.0000	157.7479
Total	**0.1426**	**1.0815**	**1.1008**	**1.9100e-003**		**0.0509**	**0.0509**		**0.0492**	**0.0492**	**0.0000**	**157.0640**	**157.0640**	**0.0274**	**0.0000**	**157.7479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e-003	0.1298	0.0350	3.5000e-004	8.7200e-003	2.4000e-004	8.9600e-003	2.5200e-003	2.3000e-004	2.7500e-003	0.0000	33.8155	33.8155	2.0200e-003	0.0000	33.8660
Worker	9.7700e-003	7.3300e-003	0.0844	2.6000e-004	0.0265	2.1000e-004	0.0268	7.0500e-003	2.0000e-004	7.2400e-003	0.0000	23.1096	23.1096	6.4000e-004	0.0000	23.1255
Total	**0.0138**	**0.1371**	**0.1194**	**6.1000e-004**	**0.0353**	**4.5000e-004**	**0.0357**	**9.5700e-003**	**4.3000e-004**	**9.9900e-003**	**0.0000**	**56.9251**	**56.9251**	**2.6600e-003**	**0.0000**	**56.9915**

3.12 Supply Chain Services Warehouse - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1426	1.0815	1.1008	1.9100e-003		0.0509	0.0509		0.0492	0.0492	0.0000	157.0638	157.0638	0.0274	0.0000	157.7477
Total	**0.1426**	**1.0815**	**1.1008**	**1.9100e-003**		**0.0509**	**0.0509**		**0.0492**	**0.0492**	**0.0000**	**157.0638**	**157.0638**	**0.0274**	**0.0000**	**157.7477**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0300e-003	0.1298	0.0350	3.5000e-004	8.7200e-003	2.4000e-004	8.9600e-003	2.5200e-003	2.3000e-004	2.7500e-003	0.0000	33.8155	33.8155	2.0200e-003	0.0000	33.8660
Worker	9.7700e-003	7.3300e-003	0.0844	2.6000e-004	0.0265	2.1000e-004	0.0268	7.0500e-003	2.0000e-004	7.2400e-003	0.0000	23.1096	23.1096	6.4000e-004	0.0000	23.1255
Total	**0.0138**	**0.1371**	**0.1194**	**6.1000e-004**	**0.0353**	**4.5000e-004**	**0.0357**	**9.5700e-003**	**4.3000e-004**	**9.9900e-003**	**0.0000**	**56.9251**	**56.9251**	**2.6600e-003**	**0.0000**	**56.9915**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0953	0.8856	0.9369	1.4800e-003		0.0481	0.0481		0.0451	0.0451	0.0000	127.4405	127.4405	0.0328	0.0000	128.2616
Total	**0.0953**	**0.8856**	**0.9369**	**1.4800e-003**		**0.0481**	**0.0481**		**0.0451**	**0.0451**	**0.0000**	**127.4405**	**127.4405**	**0.0328**	**0.0000**	**128.2616**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0434	0.0118	1.1000e-004	2.7700e-003	9.0000e-005	2.8600e-003	8.0000e-004	8.0000e-005	8.8000e-004	0.0000	10.8459	10.8459	6.7000e-004	0.0000	10.8625
Worker	3.0300e-003	2.3600e-003	0.0266	8.0000e-005	7.7100e-003	6.0000e-005	7.7800e-003	2.0500e-003	6.0000e-005	2.1100e-003	0.0000	6.9620	6.9620	2.0000e-004	0.0000	6.9671
Total	**4.4000e-003**	**0.0458**	**0.0384**	**1.9000e-004**	**0.0105**	**1.5000e-004**	**0.0106**	**2.8500e-003**	**1.4000e-004**	**2.9900e-003**	**0.0000**	**17.8078**	**17.8078**	**8.7000e-004**	**0.0000**	**17.8296**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0953	0.8856	0.9369	1.4800e-003		0.0481	0.0481		0.0451	0.0451	0.0000	127.4404	127.4404	0.0328	0.0000	128.2614
Total	**0.0953**	**0.8856**	**0.9369**	**1.4800e-003**		**0.0481**	**0.0481**		**0.0451**	**0.0451**	**0.0000**	**127.4404**	**127.4404**	**0.0328**	**0.0000**	**128.2614**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0434	0.0118	1.1000e-004	2.7700e-003	9.0000e-005	2.8600e-003	8.0000e-004	8.0000e-005	8.8000e-004	0.0000	10.8459	10.8459	6.7000e-004	0.0000	10.8625
Worker	3.0300e-003	2.3600e-003	0.0266	8.0000e-005	7.7100e-003	6.0000e-005	7.7800e-003	2.0500e-003	6.0000e-005	2.1100e-003	0.0000	6.9620	6.9620	2.0000e-004	0.0000	6.9671
Total	**4.4000e-003**	**0.0458**	**0.0384**	**1.9000e-004**	**0.0105**	**1.5000e-004**	**0.0106**	**2.8500e-003**	**1.4000e-004**	**2.9900e-003**	**0.0000**	**17.8078**	**17.8078**	**8.7000e-004**	**0.0000**	**17.8296**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1453	1.3436	1.5824	2.5200e-003		0.0690	0.0690		0.0647	0.0647	0.0000	217.3122	217.3122	0.0557	0.0000	218.7050
Total	**0.1453**	**1.3436**	**1.5824**	**2.5200e-003**		**0.0690**	**0.0690**		**0.0647**	**0.0647**	**0.0000**	**217.3122**	**217.3122**	**0.0557**	**0.0000**	**218.7050**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0703	0.0190	1.9000e-004	4.7200e-003	1.3000e-004	4.8600e-003	1.3600e-003	1.3000e-004	1.4900e-003	0.0000	18.3249	18.3249	1.0900e-003	0.0000	18.3522
Worker	4.8400e-003	3.6300e-003	0.0418	1.3000e-004	0.0132	1.0000e-004	0.0133	3.4900e-003	1.0000e-004	3.5900e-003	0.0000	11.4499	11.4499	3.2000e-004	0.0000	11.4577
Total	**7.0300e-003**	**0.0740**	**0.0608**	**3.2000e-004**	**0.0179**	**2.3000e-004**	**0.0181**	**4.8500e-003**	**2.3000e-004**	**5.0800e-003**	**0.0000**	**29.7747**	**29.7747**	**1.4100e-003**	**0.0000**	**29.8100**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1453	1.3436	1.5824	2.5200e-003		0.0690	0.0690		0.0647	0.0647	0.0000	217.3120	217.3120	0.0557	0.0000	218.7048
Total	**0.1453**	**1.3436**	**1.5824**	**2.5200e-003**		**0.0690**	**0.0690**		**0.0647**	**0.0647**	**0.0000**	**217.3120**	**217.3120**	**0.0557**	**0.0000**	**218.7048**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.1900e-003	0.0703	0.0190	1.9000e-004	4.7200e-003	1.3000e-004	4.8600e-003	1.3600e-003	1.3000e-004	1.4900e-003	0.0000	18.3249	18.3249	1.0900e-003	0.0000	18.3522
Worker	4.8400e-003	3.6300e-003	0.0418	1.3000e-004	0.0132	1.0000e-004	0.0133	3.4900e-003	1.0000e-004	3.5900e-003	0.0000	11.4499	11.4499	3.2000e-004	0.0000	11.4577
Total	**7.0300e-003**	**0.0740**	**0.0608**	**3.2000e-004**	**0.0179**	**2.3000e-004**	**0.0181**	**4.8500e-003**	**2.3000e-004**	**5.0800e-003**	**0.0000**	**29.7747**	**29.7747**	**1.4100e-003**	**0.0000**	**29.8100**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3059	1.5012	4.5599	0.0197	1.8442	0.0146	1.8588	0.4942	0.0136	0.5078	0.0000	1,820.7965	1,820.7965	0.0807	0.0000	1,822.8141
Unmitigated	0.3059	1.5012	4.5599	0.0197	1.8442	0.0146	1.8588	0.4942	0.0136	0.5078	0.0000	1,820.7965	1,820.7965	0.0807	0.0000	1,822.8141

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Light Industry	1,359.52	257.52	132.24	4,546,804	4,546,804
General Light Industry	93.76	17.76	9.12	313,573	313,573
General Office Building	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	1,453.28	275.28	141.36	4,860,376	4,860,376

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking Structure	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Light Industry	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Office Building	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Other Asphalt Surfaces	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Research & Development	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Unrefrigerated Warehouse-No Rail	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Mid Valley Water Facility Unmitigated - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,419.6010	1,419.6010	0.0337	7.4900e-003	1,422.6755
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,419.6010	1,419.6010	0.0337	7.4900e-003	1,422.6755
NaturalGas Mitigated	0.0192	0.1747	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.1545	190.1545	3.6400e-003	3.4900e-003	191.2845
NaturalGas Unmitigated	0.0192	0.1747	0.1467	1.0500e-003		0.0133	0.0133		0.0133	0.0133	0.0000	190.1545	190.1545	3.6400e-003	3.4900e-003	191.2845

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	162900	8.8000e-004	7.9900e-003	6.7100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.6930	8.6930	1.7000e-004	1.6000e-004	8.7446
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	144800	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7271	7.7271	1.5000e-004	1.4000e-004	7.7730
General Light Industry	2.0996e+006	0.0113	0.1029	0.0865	6.2000e-004		7.8200e-003	7.8200e-003		7.8200e-003	7.8200e-003	0.0000	112.0427	112.0427	2.1500e-003	2.0500e-003	112.7085
General Office Building	31230	1.7000e-004	1.5300e-003	1.2900e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.6666	1.6666	3.0000e-005	3.0000e-005	1.6765
General Office Building	718290	3.8700e-003	0.0352	0.0296	2.1000e-004		2.6800e-003	2.6800e-003		2.6800e-003	2.6800e-003	0.0000	38.3307	38.3307	7.3000e-004	7.0000e-004	38.5585
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	343900	1.8500e-003	0.0169	0.0142	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3518	18.3518	3.5000e-004	3.4000e-004	18.4609
Unrefrigerated Warehouse-No Rail	62640	3.4000e-004	3.0700e-003	2.5800e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3427	3.3427	6.0000e-005	6.0000e-005	3.3626
Total		**0.0192**	**0.1747**	**0.1467**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.1545**	**190.1545**	**3.6400e-003**	**3.4800e-003**	**191.2845**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	162900	8.8000e-004	7.9900e-003	6.7100e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.6930	8.6930	1.7000e-004	1.6000e-004	8.7446
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	144800	7.8000e-004	7.1000e-003	5.9600e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7271	7.7271	1.5000e-004	1.4000e-004	7.7730
General Light Industry	2.0996e+006	0.0113	0.1029	0.0865	6.2000e-004		7.8200e-003	7.8200e-003		7.8200e-003	7.8200e-003	0.0000	112.0427	112.0427	2.1500e-003	2.0500e-003	112.7085
General Office Building	31230	1.7000e-004	1.5300e-003	1.2900e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.6666	1.6666	3.0000e-005	3.0000e-005	1.6765
General Office Building	718290	3.8700e-003	0.0352	0.0296	2.1000e-004		2.6800e-003	2.6800e-003		2.6800e-003	2.6800e-003	0.0000	38.3307	38.3307	7.3000e-004	7.0000e-004	38.5585
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	343900	1.8500e-003	0.0169	0.0142	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	18.3518	18.3518	3.5000e-004	3.4000e-004	18.4609
Unrefrigerated Warehouse-No Rail	62640	3.4000e-004	3.0700e-003	2.5800e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.3427	3.3427	6.0000e-005	6.0000e-005	3.3626
Total		**0.0192**	**0.1747**	**0.1467**	**1.0500e-003**		**0.0133**	**0.0133**		**0.0133**	**0.0133**	**0.0000**	**190.1545**	**190.1545**	**3.6400e-003**	**3.4800e-003**	**191.2845**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	99900	34.3552	8.2000e-004	1.8000e-004	34.4296
Enclosed Parking Structure	1.22472e+006	421.1758	0.0100	2.2200e-003	422.0880
General Light Industry	1.2876e+006	442.8000	0.0105	2.3400e-003	443.7590
General Light Industry	88800	30.5379	7.3000e-004	1.6000e-004	30.6041
General Office Building	38970	13.4016	3.2000e-004	7.0000e-005	13.4306
General Office Building	896310	308.2371	7.3200e-003	1.6300e-003	308.9046
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	210900	72.5276	1.7200e-003	3.8000e-004	72.6847
Unrefrigerated Warehouse-No Rail	280800	96.5659	2.2900e-003	5.1000e-004	96.7750
Total		**1,419.6010**	**0.0337**	**7.4900e-003**	**1,422.6755**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	99900	34.3552	8.2000e-004	1.8000e-004	34.4296
Enclosed Parking Structure	1.22472e+006	421.1758	0.0100	2.2200e-003	422.0880
General Light Industry	1.2876e+006	442.8000	0.0105	2.3400e-003	443.7590
General Light Industry	88800	30.5379	7.3000e-004	1.6000e-004	30.6041
General Office Building	38970	13.4016	3.2000e-004	7.0000e-005	13.4306
General Office Building	896310	308.2371	7.3200e-003	1.6300e-003	308.9046
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	210900	72.5276	1.7200e-003	3.8000e-004	72.6847
Unrefrigerated Warehouse-No Rail	280800	96.5659	2.2900e-003	5.1000e-004	96.7750
Total		**1,419.6010**	**0.0337**	**7.4900e-003**	**1,422.6755**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2397	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Unmitigated	1.2397	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.3000e-004	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Total	**1.2397**	**8.0000e-005**	**8.9700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0175**	**0.0175**	**5.0000e-005**	**0.0000**	**0.0186**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1429					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0960					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.3000e-004	8.0000e-005	8.9700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0175	0.0175	5.0000e-005	0.0000	0.0186
Total	**1.2397**	**8.0000e-005**	**8.9700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0175**	**0.0175**	**5.0000e-005**	**0.0000**	**0.0186**

7.0 Water Detail

7.1 Mitigation Measures Water

Mid Valley Water Facility Unmitigated - Los Angeles-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	359.5073	2.2339	0.0543	431.5491
Unmitigated	359.5073	2.2339	0.0543	431.5491

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.84673 / 0.518964	6.0430	0.0277	6.8000e-004	6.9394
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	28.675 / 0	137.5000	0.9374	0.0227	167.7122
General Office Building	12.7968 / 7.84322	91.3287	0.4191	0.0103	104.8765
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	9.34219 / 0	44.7969	0.3054	7.4100e-003	54.6399
Unrefrigerated Warehouse-No Rail	16.65 / 0	79.8387	0.5443	0.0132	97.3813
Total		**359.5073**	**2.2339**	**0.0543**	**431.5491**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.84673 / 0.518964	6.0430	0.0277	6.8000e-004	6.9394
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	28.675 / 0	137.5000	0.9374	0.0227	167.7122
General Office Building	12.7968 / 7.84322	91.3287	0.4191	0.0103	104.8765
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	9.34219 / 0	44.7969	0.3054	7.4100e-003	54.6399
Unrefrigerated Warehouse-No Rail	16.65 / 0	79.8387	0.5443	0.0132	97.3813
Total		**359.5073**	**2.2339**	**0.0543**	**431.5491**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	65.8137	3.8895	0.0000	163.0507
Unmitigated	65.8137	3.8895	0.0000	163.0507

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	34.38	6.9788	0.4124	0.0000	17.2898
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	153.76	31.2119	1.8446	0.0000	77.3261
General Office Building	66.96	13.5923	0.8033	0.0000	33.6743
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	1.44	0.2923	0.0173	0.0000	0.7242
Unrefrigerated Warehouse-No Rail	67.68	13.7384	0.8119	0.0000	34.0364
Total		**65.8137**	**3.8895**	**0.0000**	**163.0507**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	34.38	6.9788	0.4124	0.0000	17.2898
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	153.76	31.2119	1.8446	0.0000	77.3261
General Office Building	66.96	13.5923	0.8033	0.0000	33.6743
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Research & Development	1.44	0.2923	0.0173	0.0000	0.7242
Unrefrigerated Warehouse-No Rail	67.68	13.7384	0.8119	0.0000	34.0364
Total		**65.8137**	**3.8895**	**0.0000**	**163.0507**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	4.00	260	89	0.20	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0568	0.5347	0.7406	1.0000e-003		0.0286	0.0286		0.0263	0.0263	0.0000	87.7258	87.7258	0.0284	0.0000	88.4351
Total	**0.0568**	**0.5347**	**0.7406**	**1.0000e-003**		**0.0286**	**0.0286**		**0.0263**	**0.0263**	**0.0000**	**87.7258**	**87.7258**	**0.0284**	**0.0000**	**88.4351**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mid Valley Water Facility Unmitigated HRA

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	69.00	1000sqft	1.58	69,000.00	0
General Office Building	3.00	1000sqft	0.07	3,000.00	0
Research & Development	19.00	1000sqft	0.44	19,000.00	0
General Light Industry	116.00	1000sqft	2.66	116,000.00	0
General Light Industry	8.00	1000sqft	0.18	8,000.00	0
Unrefrigerated Warehouse-No Rail	72.00	1000sqft	1.65	72,000.00	0
Enclosed Parking Structure	216.00	1000sqft	4.96	216,000.00	0
Other Asphalt Surfaces	181.00	1000sqft	4.16	181,000.00	0
Other Asphalt Surfaces	12.00	1000sqft	0.28	12,000.00	0
Automobile Care Center	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	758.16	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Los Angeles Department of Water and Power adjusted for 43.2% RPS in 2026. HRA

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Grading - Data provided by applicant.

Vehicle Trips - Data provided by Traffic Report. HRA onsite vehicle travel assumed 0.19 miles (1,000 feet).

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Operational Off-Road Equipment - Data provided by applicant.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	42.00

tblConstructionPhase	NumDays	300.00	238.00
tblConstructionPhase	NumDays	300.00	108.00
tblConstructionPhase	NumDays	300.00	22.00
tblConstructionPhase	NumDays	300.00	195.00
tblConstructionPhase	NumDays	300.00	238.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	30.00	130.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	21.00
tblGrading	AcresOfGrading	325.00	6.57
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
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tblOffRoadEquipment	UsageHours	7.00	6.00
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tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	1227.89	758.16
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

tblTripsAndVMT	HaulingTripNumber	0.00	4,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	11,118.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	116.00	10.00
tblTripsAndVMT	VendorTripNumber	116.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	22.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	116.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	0.00
tblTripsAndVMT	VendorTripNumber	116.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
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tblTripsAndVMT	WorkerTripNumber	286.00	16.00
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tblTripsAndVMT	WorkerTripNumber	57.00	44.00
tblTripsAndVMT	WorkerTripNumber	20.00	16.00
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tblTripsAndVMT	WorkerTripNumber	286.00	0.00
tblTripsAndVMT	WorkerTripNumber	286.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	286.00	18.00
tblTripsAndVMT	WorkerTripNumber	286.00	48.00
tblTripsAndVMT	WorkerTripNumber	286.00	68.00

tblTripsAndVMT	WorkerTripNumber	286.00	28.00
tblVehicleTrips	CC_TL	8.40	0.19
tblVehicleTrips	CNW_TL	6.90	0.19
tblVehicleTrips	CW_TL	16.60	0.19
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	ST_TR	1.32	2.22
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	0.68	1.14
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	6.97	11.72
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.2424	74.7465	37.1757	0.1299	18.2803	2.2711	20.4804	9.9877	2.0924	12.0119	0.0000	13,369.4354	13,369.4354	2.3855	0.0000	13,429.0719
2021	11.4382	91.9127	92.0064	0.1736	8.0058	4.5099	10.0707	3.8367	4.2938	5.7390	0.0000	16,446.4334	16,446.4334	2.8737	0.0000	16,518.2764
2022	72.0699	83.6387	90.3452	0.1727	2.4122	3.8401	6.2523	0.6493	3.6585	4.3078	0.0000	16,362.5537	16,362.5537	2.8259	0.0000	16,433.2012
2023	3.1436	34.5567	27.8332	0.0779	2.8680	1.2882	4.1562	0.7266	1.2002	1.9268	0.0000	7,827.1598	7,827.1598	1.4831	0.0000	7,864.2370
Maximum	**72.0699**	**91.9127**	**92.0064**	**0.1736**	**18.2803**	**4.5099**	**20.4804**	**9.9877**	**4.2938**	**12.0119**	**0.0000**	**16,446.4334**	**16,446.4334**	**2.8737**	**0.0000**	**16,518.2764**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.2424	74.7465	37.1757	0.1299	9.3168	2.2711	11.5879	3.9300	2.0924	5.9541	0.0000	13,369.4354	13,369.4354	2.3855	0.0000	13,429.0719
2021	11.4382	91.9127	92.0064	0.1736	4.2996	4.5099	6.9221	1.8139	4.2938	4.9431	0.0000	16,446.4333	16,446.4333	2.8737	0.0000	16,518.2764
2022	72.0699	83.6387	90.3452	0.1727	2.4122	3.8401	6.2523	0.6493	3.6585	4.3078	0.0000	16,362.5537	16,362.5537	2.8259	0.0000	16,433.2012
2023	3.1436	34.5567	27.8332	0.0779	2.8680	1.2882	4.1562	0.7266	1.2002	1.9268	0.0000	7,827.1598	7,827.1598	1.4831	0.0000	7,864.2370
Maximum	**72.0699**	**91.9127**	**92.0064**	**0.1736**	**9.3168**	**4.5099**	**11.5879**	**3.9300**	**4.2938**	**5.9541**	**0.0000**	**16,446.4333**	**16,446.4333**	**2.8737**	**0.0000**	**16,518.2764**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**40.14**	**0.00**	**29.40**	**53.16**	**0.00**	**28.57**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Energy	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
Mobile	1.1293	4.6555	4.1208	8.5000e-003	0.2026	9.0700e-003	0.2117	0.0542	8.3800e-003	0.0626		888.0088	888.0088	0.0783		889.9654
Offroad	0.4345	4.0927	5.6688	7.6400e-003		0.2191	0.2191		0.2016	0.2016		740.1542	740.1542	0.2394		746.1387
Total	**8.4642**	**9.7060**	**10.6654**	**0.0219**	**0.2026**	**0.3012**	**0.5038**	**0.0542**	**0.2830**	**0.3372**		**2,776.8620**	**2,776.8620**	**0.3401**	**0.0211**	**2,791.6384**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Energy	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
Mobile	1.1293	4.6555	4.1208	8.5000e-003	0.2026	9.0700e-003	0.2117	0.0542	8.3800e-003	0.0626		888.0088	888.0088	0.0783		889.9654
Offroad	0.4345	4.0927	5.6688	7.6400e-003		0.2191	0.2191		0.2016	0.2016		740.1542	740.1542	0.2394		746.1387
Total	**8.4642**	**9.7060**	**10.6654**	**0.0219**	**0.2026**	**0.3012**	**0.5038**	**0.0542**	**0.2830**	**0.3372**		**2,776.8620**	**2,776.8620**	**0.3401**	**0.0211**	**2,791.6384**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2020	11/30/2020	5	21	
2	Grading	Grading	12/1/2020	5/31/2021	5	130	
3	Trenching & Underground Utilities	Trenching	7/1/2021	7/30/2021	5	22	
4	Perimeter Walls Construction	Building Construction	7/1/2021	7/30/2021	5	22	
5	Paving & Site Infrastructure	Paving	8/1/2021	8/21/2021	5	15	
6	Office Building & Staff Parking	Building Construction	9/1/2021	5/31/2022	5	195	
7	Water Distribution Shop and Maintenance Building	Building Construction	9/1/2021	7/30/2022	5	238	
8	Department Fleet Vehicles Parking	Building Construction	9/1/2021	8/31/2022	5	261	
9	Supply Chain Services Warehouse	Building Construction	9/1/2021	8/31/2022	5	261	
10	Fleet Maintenance Building and CNG Dispensing Area	Building Construction	9/1/2021	7/30/2022	5	238	
11	Street Improvement of Hazeltine Avenue	Building Construction	9/1/2022	1/30/2023	5	108	
12	Architectural Coating	Architectural Coating	9/1/2022	10/30/2022	5	42	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.57

Acres of Paving: 9.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 444,000; Non-Residential Outdoor: 148,000; Striped Parking Area: 24,540 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Perimeter Walls Construction	Bore/Drill Rigs	1	8.00	221	0.50
Perimeter Walls Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Perimeter Walls Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Perimeter Walls Construction	Cranes	1	7.00	231	0.29
Perimeter Walls Construction	Forklifts	3	8.00	89	0.20
Perimeter Walls Construction	Generator Sets	1	8.00	84	0.74
Perimeter Walls Construction	Paving Equipment	1	8.00	132	0.36
Perimeter Walls Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Perimeter Walls Construction	Welders	1	8.00	46	0.45
Paving & Site Infrastructure	Pavers	2	8.00	130	0.42
Paving & Site Infrastructure	Paving Equipment	2	8.00	132	0.36
Paving & Site Infrastructure	Rollers	2	8.00	80	0.38
Street Improvement of Hazeltine Avenue	Cranes	1	7.00	231	0.29
Street Improvement of Hazeltine Avenue	Excavators	1	8.00	158	0.38
Street Improvement of Hazeltine Avenue	Forklifts	3	8.00	89	0.20
Street Improvement of Hazeltine Avenue	Generator Sets	1	8.00	84	0.74
Street Improvement of Hazeltine Avenue	Graders	1	8.00	187	0.41
Street Improvement of Hazeltine Avenue	Rubber Tired Dozers	1	8.00	247	0.40
Street Improvement of Hazeltine Avenue	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Street Improvement of Hazeltine Avenue	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trenching & Underground Utilities	Plate Compactors	1	8.00	8	0.43
Trenching & Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching & Underground Utilities	Trenchers	1	8.00	78	0.50
Office Building & Staff Parking	Cranes	1	4.00	231	0.29
Office Building & Staff Parking	Forklifts	2	6.00	89	0.20
Office Building & Staff Parking	Forklifts	2	7.00	89	0.20
Office Building & Staff Parking	Generator Sets	1	8.00	84	0.74
Office Building & Staff Parking	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Office Building & Staff Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Office Building & Staff Parking	Welders	3	8.00	46	0.45
Water Distribution Shop and Maintenance Building	Cranes	1	8.00	231	0.29
Water Distribution Shop and Maintenance Building	Forklifts	2	7.00	89	0.20
Water Distribution Shop and Maintenance Building	Generator Sets	1	8.00	84	0.74
Water Distribution Shop and Maintenance Building	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Water Distribution Shop and Maintenance Building	Welders	3	8.00	46	0.45
Department Fleet Vehicles Parking	Cranes	1	8.00	231	0.29
Department Fleet Vehicles Parking	Forklifts	2	7.00	89	0.20
Department Fleet Vehicles Parking	Generator Sets	1	8.00	84	0.74
Department Fleet Vehicles Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Department Fleet Vehicles Parking	Welders	3	8.00	46	0.45
Supply Chain Services Warehouse	Cranes	1	6.00	231	0.29
Supply Chain Services Warehouse	Forklifts	1	6.00	89	0.20
Supply Chain Services Warehouse	Generator Sets	1	8.00	84	0.74
Supply Chain Services Warehouse	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Supply Chain Services Warehouse	Welders	3	8.00	46	0.45
Fleet Maintenance Building and CNG Dispensing Area	Cranes	1	4.00	231	0.29

Fleet Maintenance Building and CNG Dispensing Area	Forklifts	2	6.00	89	0.20
Fleet Maintenance Building and CNG Dispensing Area	Generator Sets	1	8.00	84	0.74
Fleet Maintenance Building and CNG Dispensing Area	Pavers	1	6.00	130	0.42
Fleet Maintenance Building and CNG Dispensing Area	Paving Equipment	1	8.00	132	0.36
Fleet Maintenance Building and CNG Dispensing Area	Rollers	1	7.00	80	0.38
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	16.00	2.00	11,118.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	6.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Infrastructure	6	16.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Street Improvement of Hazeltine Avenue	12	16.00	2.00	4,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	44.00	22.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching & Underground Utilities	4	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Office Building & Staff Parking	12	18.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Water Distribution Shop and Maintenanc	8	48.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Department Fleet Vehicles Parking	8	68.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Supply Chain Services Warehouse	7	28.00	16.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fleet Maintenance Building and CNG Dis	11	16.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0900**	**0.2717**	**0.8439**	**2.6500e-003**	**0.2140**	**2.6800e-003**	**0.2167**	**0.0571**	**2.5100e-003**	**0.0596**		**267.1053**	**267.1053**	**0.0101**		**267.3566**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0900**	**0.2717**	**0.8439**	**2.6500e-003**	**0.2140**	**2.6800e-003**	**0.2167**	**0.0571**	**2.5100e-003**	**0.0596**		**267.1053**	**267.1053**	**0.0101**		**267.3566**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0757	0.0000	6.0757	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	4.4146	49.8900	30.9702	0.0599		2.1902	2.1902		2.0149	2.0149		5,806.5154	5,806.5154	1.8779		5,853.4640
Total	**4.4146**	**49.8900**	**30.9702**	**0.0599**	**6.0757**	**2.1902**	**8.2658**	**3.3160**	**2.0149**	**5.3310**		**5,806.5154**	**5,806.5154**	**1.8779**		**5,853.4640**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7470	24.5914	5.4492	0.0676	6.7556	0.0785	6.8341	1.7011	0.0751	1.7761		7,319.3370	7,319.3370	0.4982		7,331.7920
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0736	0.0524	0.7006	1.8900e-003	0.1788	1.4900e-003	0.1803	0.0474	1.3800e-003	0.0488		188.1781	188.1781	5.9300e-003		188.3264
Total	**0.8278**	**24.8565**	**6.2055**	**0.0700**	**6.9472**	**0.0810**	**7.0282**	**1.7522**	**0.0774**	**1.8296**		**7,562.9200**	**7,562.9200**	**0.5075**		**7,575.6079**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3695	0.0000	2.3695	1.2933	0.0000	1.2933			0.0000			0.0000
Off-Road	4.4146	49.8900	30.9702	0.0599		2.1902	2.1902		2.0149	2.0149	0.0000	5,806.5154	5,806.5154	1.8779		5,853.4640
Total	**4.4146**	**49.8900**	**30.9702**	**0.0599**	**2.3695**	**2.1902**	**4.5597**	**1.2933**	**2.0149**	**3.3082**	**0.0000**	**5,806.5154**	**5,806.5154**	**1.8779**		**5,853.4640**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7470	24.5914	5.4492	0.0676	6.7556	0.0785	6.8341	1.7011	0.0751	1.7761		7,319.3370	7,319.3370	0.4982		7,331.7920
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0736	0.0524	0.7006	1.8900e-003	0.1788	1.4900e-003	0.1803	0.0474	1.3800e-003	0.0488		188.1781	188.1781	5.9300e-003		188.3264
Total	**0.8278**	**24.8565**	**6.2055**	**0.0700**	**6.9472**	**0.0810**	**7.0282**	**1.7522**	**0.0774**	**1.8296**		**7,562.9200**	**7,562.9200**	**0.5075**		**7,575.6079**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0757	0.0000	6.0757	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	4.1493	46.1422	29.8669	0.0600		1.9927	1.9927		1.8333	1.8333		5,807.7515	5,807.7515	1.8783		5,854.7102
Total	**4.1493**	**46.1422**	**29.8669**	**0.0600**	**6.0757**	**1.9927**	**8.0684**	**3.3160**	**1.8333**	**5.1493**		**5,807.7515**	**5,807.7515**	**1.8783**		**5,854.7102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7131	22.9410	5.3790	0.0667	1.7385	0.0704	1.8089	0.4696	0.0674	0.5369		7,239.0690	7,239.0690	0.4913		7,251.3507
Vendor	6.0800e-003	0.1942	0.0508	5.1000e-004	0.0128	4.0000e-004	0.0132	3.6900e-003	3.8000e-004	4.0700e-003		54.9761	54.9761	3.2400e-003		55.0571
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.7877**	**23.1823**	**6.0742**	**0.0691**	**1.9301**	**0.0723**	**2.0024**	**0.5207**	**0.0691**	**0.5898**		**7,476.2483**	**7,476.2483**	**0.4999**		**7,488.7452**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3695	0.0000	2.3695	1.2933	0.0000	1.2933			0.0000			0.0000
Off-Road	4.1493	46.1422	29.8669	0.0600		1.9927	1.9927		1.8333	1.8333	0.0000	5,807.7515	5,807.7515	1.8783		5,854.7102
Total	**4.1493**	**46.1422**	**29.8669**	**0.0600**	**2.3695**	**1.9927**	**4.3622**	**1.2933**	**1.8333**	**3.1265**	**0.0000**	**5,807.7515**	**5,807.7515**	**1.8783**		**5,854.7102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7131	22.9410	5.3790	0.0667	1.7385	0.0704	1.8089	0.4696	0.0674	0.5369		7,239.0690	7,239.0690	0.4913		7,251.3507
Vendor	6.0800e-003	0.1942	0.0508	5.1000e-004	0.0128	4.0000e-004	0.0132	3.6900e-003	3.8000e-004	4.0700e-003		54.9761	54.9761	3.2400e-003		55.0571
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.7877**	**23.1823**	**6.0742**	**0.0691**	**1.9301**	**0.0723**	**2.0024**	**0.5207**	**0.0691**	**0.5898**		**7,476.2483**	**7,476.2483**	**0.4999**		**7,488.7452**

3.4 Trenching & Underground Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7971	7.5550	7.3373	0.0101		0.4883	0.4883		0.4500	0.4500		963.2020	963.2020	0.3040		970.8007
Total	**0.7971**	**7.5550**	**7.3373**	**0.0101**		**0.4883**	**0.4883**		**0.4500**	**0.4500**		**963.2020**	**963.2020**	**0.3040**		**970.8007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0800e-003	0.1942	0.0508	5.1000e-004	0.0128	4.0000e-004	0.0132	3.6900e-003	3.8000e-004	4.0700e-003		54.9761	54.9761	3.2400e-003		55.0571
Worker	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**0.0490**	**0.2236**	**0.4535**	**1.6500e-003**	**0.1246**	**1.3000e-003**	**0.1259**	**0.0333**	**1.2100e-003**	**0.0346**		**168.8531**	**168.8531**	**6.6000e-003**		**169.0180**

3.4 Trenching & Underground Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7971	7.5550	7.3373	0.0101		0.4883	0.4883		0.4500	0.4500	0.0000	963.2020	963.2020	0.3040		970.8007
Total	**0.7971**	**7.5550**	**7.3373**	**0.0101**		**0.4883**	**0.4883**		**0.4500**	**0.4500**	**0.0000**	**963.2020**	**963.2020**	**0.3040**		**970.8007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0800e-003	0.1942	0.0508	5.1000e-004	0.0128	4.0000e-004	0.0132	3.6900e-003	3.8000e-004	4.0700e-003		54.9761	54.9761	3.2400e-003		55.0571
Worker	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**0.0490**	**0.2236**	**0.4535**	**1.6500e-003**	**0.1246**	**1.3000e-003**	**0.1259**	**0.0333**	**1.2100e-003**	**0.0346**		**168.8531**	**168.8531**	**6.6000e-003**		**169.0180**

3.5 Perimeter Walls Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7947	25.8012	25.1730	0.0474		1.3335	1.3335		1.2612	1.2612		4,503.0630	4,503.0630	1.0782		4,530.0187
Total	**2.7947**	**25.8012**	**25.1730**	**0.0474**		**1.3335**	**1.3335**		**1.2612**	**1.2612**		**4,503.0630**	**4,503.0630**	**1.0782**		**4,530.0187**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0621	7.9000e-004	0.0629	0.0163	7.6000e-004	0.0171		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.0257	0.0177	0.2417	6.9000e-004	0.1837	5.4000e-004	0.1842	0.0464	5.0000e-004	0.0469		68.3262	68.3262	2.0100e-003		68.3765
Total	**0.0379**	**0.4060**	**0.3432**	**1.7200e-003**	**0.2458**	**1.3300e-003**	**0.2471**	**0.0627**	**1.2600e-003**	**0.0640**		**178.2784**	**178.2784**	**8.4900e-003**		**178.4907**

3.5 Perimeter Walls Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7947	25.8012	25.1730	0.0474		1.3335	1.3335		1.2612	1.2612	0.0000	4,503.0630	4,503.0630	1.0782		4,530.0187
Total	**2.7947**	**25.8012**	**25.1730**	**0.0474**		**1.3335**	**1.3335**		**1.2612**	**1.2612**	**0.0000**	**4,503.0630**	**4,503.0630**	**1.0782**		**4,530.0187**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0621	7.9000e-004	0.0629	0.0163	7.6000e-004	0.0171		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.0257	0.0177	0.2417	6.9000e-004	0.1837	5.4000e-004	0.1842	0.0464	5.0000e-004	0.0469		68.3262	68.3262	2.0100e-003		68.3765
Total	**0.0379**	**0.4060**	**0.3432**	**1.7200e-003**	**0.2458**	**1.3300e-003**	**0.2471**	**0.0627**	**1.2600e-003**	**0.0640**		**178.2784**	**178.2784**	**8.4900e-003**		**178.4907**

3.6 Paving & Site Infrastructure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0311**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.0807**	**0.4355**	**0.7460**	**2.8600e-003**	**0.2045**	**2.2400e-003**	**0.2067**	**0.0548**	**2.0900e-003**	**0.0569**		**292.1554**	**292.1554**	**0.0119**		**292.4516**

3.6 Paving & Site Infrastructure - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0311**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.0807**	**0.4355**	**0.7460**	**2.8600e-003**	**0.2045**	**2.2400e-003**	**0.2067**	**0.0548**	**2.0900e-003**	**0.0569**		**292.1554**	**292.1554**	**0.0119**		**292.4516**

3.7 Office Building & Staff Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4071	19.1632	19.8438	0.0306		1.0679	1.0679		1.0137	1.0137		2,833.4125	2,833.4125	0.6264		2,849.0729
Total	**2.4071**	**19.1632**	**19.8438**	**0.0306**		**1.0679**	**1.0679**		**1.0137**	**1.0137**		**2,833.4125**	**2,833.4125**	**0.6264**		**2,849.0729**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0365	1.1651	0.3046	3.0900e-003	0.0768	2.3800e-003	0.0792	0.0221	2.2800e-003	0.0244		329.8568	329.8568	0.0194		330.3426
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.1136**	**1.2181**	**1.0296**	**5.1500e-003**	**0.2780**	**4.0100e-003**	**0.2820**	**0.0755**	**3.7800e-003**	**0.0793**		**534.8353**	**534.8353**	**0.0255**		**535.4722**

3.7 Office Building & Staff Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4071	19.1632	19.8438	0.0306		1.0679	1.0679		1.0137	1.0137	0.0000	2,833.4125	2,833.4125	0.6264		2,849.0729
Total	**2.4071**	**19.1632**	**19.8438**	**0.0306**		**1.0679**	**1.0679**		**1.0137**	**1.0137**	**0.0000**	**2,833.4125**	**2,833.4125**	**0.6264**		**2,849.0729**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0365	1.1651	0.3046	3.0900e-003	0.0768	2.3800e-003	0.0792	0.0221	2.2800e-003	0.0244		329.8568	329.8568	0.0194		330.3426
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.1136**	**1.2181**	**1.0296**	**5.1500e-003**	**0.2780**	**4.0100e-003**	**0.2820**	**0.0755**	**3.7800e-003**	**0.0793**		**534.8353**	**534.8353**	**0.0255**		**535.4722**

3.7 Office Building & Staff Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1688	17.4455	19.6136	0.0307		0.9004	0.9004		0.8554	0.8554		2,834.3902	2,834.3902	0.6180		2,849.8394
Total	**2.1688**	**17.4455**	**19.6136**	**0.0307**		**0.9004**	**0.9004**		**0.8554**	**0.8554**		**2,834.3902**	**2,834.3902**	**0.6180**		**2,849.8394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0342	1.1080	0.2882	3.0600e-003	0.0768	2.0800e-003	0.0789	0.0221	1.9900e-003	0.0241		326.9831	326.9831	0.0188		327.4522
Worker	0.0723	0.0479	0.6689	1.9800e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		197.7682	197.7682	5.4600e-003		197.9047
Total	**0.1065**	**1.1559**	**0.9571**	**5.0400e-003**	**0.2780**	**3.6500e-003**	**0.2817**	**0.0755**	**3.4400e-003**	**0.0789**		**524.7513**	**524.7513**	**0.0242**		**525.3569**

3.7 Office Building & Staff Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1688	17.4455	19.6136	0.0307		0.9004	0.9004		0.8554	0.8554	0.0000	2,834.3902	2,834.3902	0.6180		2,849.8394
Total	**2.1688**	**17.4455**	**19.6136**	**0.0307**		**0.9004**	**0.9004**		**0.8554**	**0.8554**	**0.0000**	**2,834.3902**	**2,834.3902**	**0.6180**		**2,849.8394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0342	1.1080	0.2882	3.0600e-003	0.0768	2.0800e-003	0.0789	0.0221	1.9900e-003	0.0241		326.9831	326.9831	0.0188		327.4522
Worker	0.0723	0.0479	0.6689	1.9800e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		197.7682	197.7682	5.4600e-003		197.9047
Total	**0.1065**	**1.1559**	**0.9571**	**5.0400e-003**	**0.2780**	**3.6500e-003**	**0.2817**	**0.0755**	**3.4400e-003**	**0.0789**		**524.7513**	**524.7513**	**0.0242**		**525.3569**

3.8 Water Distribution Shop and Maintenance Building - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0730	2.3302	0.6092	6.1700e-003	0.1537	4.7600e-003	0.1584	0.0442	4.5600e-003	0.0488		659.7135	659.7135	0.0389		660.6852
Worker	0.2058	0.1414	1.9333	5.4900e-003	0.5365	4.3400e-003	0.5409	0.1423	3.9900e-003	0.1463		546.6095	546.6095	0.0161		547.0122
Total	**0.2787**	**2.4716**	**2.5425**	**0.0117**	**0.6902**	**9.1000e-003**	**0.6993**	**0.1865**	**8.5500e-003**	**0.1951**		**1,206.3230**	**1,206.3230**	**0.0550**		**1,207.6973**

3.8 Water Distribution Shop and Maintenance Building - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0730	2.3302	0.6092	6.1700e-003	0.1537	4.7600e-003	0.1584	0.0442	4.5600e-003	0.0488		659.7135	659.7135	0.0389		660.6852
Worker	0.2058	0.1414	1.9333	5.4900e-003	0.5365	4.3400e-003	0.5409	0.1423	3.9900e-003	0.1463		546.6095	546.6095	0.0161		547.0122
Total	**0.2787**	**2.4716**	**2.5425**	**0.0117**	**0.6902**	**9.1000e-003**	**0.6993**	**0.1865**	**8.5500e-003**	**0.1951**		**1,206.3230**	**1,206.3230**	**0.0550**		**1,207.6973**

3.8 Water Distribution Shop and Maintenance Building - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0685	2.2159	0.5764	6.1100e-003	0.1537	4.1700e-003	0.1578	0.0442	3.9800e-003	0.0482		653.9661	653.9661	0.0375		654.9044
Worker	0.1927	0.1278	1.7837	5.2900e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8700e-003	0.1462		527.3819	527.3819	0.0146		527.7458
Total	**0.2612**	**2.3437**	**2.3601**	**0.0114**	**0.6902**	**8.3700e-003**	**0.6986**	**0.1865**	**7.8500e-003**	**0.1944**		**1,181.3480**	**1,181.3480**	**0.0521**		**1,182.6502**

3.8 Water Distribution Shop and Maintenance Building - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0685	2.2159	0.5764	6.1100e-003	0.1537	4.1700e-003	0.1578	0.0442	3.9800e-003	0.0482		653.9661	653.9661	0.0375		654.9044
Worker	0.1927	0.1278	1.7837	5.2900e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8700e-003	0.1462		527.3819	527.3819	0.0146		527.7458
Total	**0.2612**	**2.3437**	**2.3601**	**0.0114**	**0.6902**	**8.3700e-003**	**0.6986**	**0.1865**	**7.8500e-003**	**0.1944**		**1,181.3480**	**1,181.3480**	**0.0521**		**1,182.6502**

3.9 Department Fleet Vehicles Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.2915	0.2004	2.7389	7.7700e-003	0.7601	6.1400e-003	0.7662	0.2016	5.6600e-003	0.2072		774.3635	774.3635	0.0228		774.9339
Total	**0.3037**	**0.5887**	**2.8404**	**8.8000e-003**	**0.7857**	**6.9300e-003**	**0.7926**	**0.2090**	**6.4200e-003**	**0.2154**		**884.3158**	**884.3158**	**0.0293**		**885.0481**

3.9 Department Fleet Vehicles Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.2915	0.2004	2.7389	7.7700e-003	0.7601	6.1400e-003	0.7662	0.2016	5.6600e-003	0.2072		774.3635	774.3635	0.0228		774.9339
Total	**0.3037**	**0.5887**	**2.8404**	**8.8000e-003**	**0.7857**	**6.9300e-003**	**0.7926**	**0.2090**	**6.4200e-003**	**0.2154**		**884.3158**	**884.3158**	**0.0293**		**885.0481**

3.9 Department Fleet Vehicles Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0256	6.9000e-004	0.0263	7.3700e-003	6.6000e-004	8.0400e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.2730	0.1810	2.5269	7.5000e-003	0.7601	5.9500e-003	0.7660	0.2016	5.4800e-003	0.2071		747.1244	747.1244	0.0206		747.6399
Total	**0.2845**	**0.5503**	**2.6230**	**8.5200e-003**	**0.7857**	**6.6400e-003**	**0.7923**	**0.2090**	**6.1400e-003**	**0.2151**		**856.1187**	**856.1187**	**0.0269**		**856.7906**

3.9 Department Fleet Vehicles Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0256	6.9000e-004	0.0263	7.3700e-003	6.6000e-004	8.0400e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.2730	0.1810	2.5269	7.5000e-003	0.7601	5.9500e-003	0.7660	0.2016	5.4800e-003	0.2071		747.1244	747.1244	0.0206		747.6399
Total	**0.2845**	**0.5503**	**2.6230**	**8.5200e-003**	**0.7857**	**6.6400e-003**	**0.7923**	**0.2090**	**6.1400e-003**	**0.2151**		**856.1187**	**856.1187**	**0.0269**		**856.7906**

3.10 Supply Chain Services Warehouse - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0486	1.5534	0.4061	4.1100e-003	0.1024	3.1800e-003	0.1056	0.0295	3.0400e-003	0.0325		439.8090	439.8090	0.0259		440.4568
Worker	0.1200	0.0825	1.1278	3.2000e-003	0.3130	2.5300e-003	0.3155	0.0830	2.3300e-003	0.0853		318.8556	318.8556	9.4000e-003		319.0904
Total	**0.1687**	**1.6359**	**1.5339**	**7.3100e-003**	**0.4154**	**5.7100e-003**	**0.4211**	**0.1125**	**5.3700e-003**	**0.1179**		**758.6646**	**758.6646**	**0.0353**		**759.5472**

3.10 Supply Chain Services Warehouse - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0486	1.5534	0.4061	4.1100e-003	0.1024	3.1800e-003	0.1056	0.0295	3.0400e-003	0.0325		439.8090	439.8090	0.0259		440.4568
Worker	0.1200	0.0825	1.1278	3.2000e-003	0.3130	2.5300e-003	0.3155	0.0830	2.3300e-003	0.0853		318.8556	318.8556	9.4000e-003		319.0904
Total	**0.1687**	**1.6359**	**1.5339**	**7.3100e-003**	**0.4154**	**5.7100e-003**	**0.4211**	**0.1125**	**5.3700e-003**	**0.1179**		**758.6646**	**758.6646**	**0.0353**		**759.5472**

3.10 Supply Chain Services Warehouse - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0456	1.4773	0.3842	4.0800e-003	0.1024	2.7800e-003	0.1052	0.0295	2.6600e-003	0.0322		435.9774	435.9774	0.0250		436.6029
Worker	0.1124	0.0745	1.0405	3.0900e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		307.6395	307.6395	8.4900e-003		307.8517
Total	**0.1581**	**1.5518**	**1.4247**	**7.1700e-003**	**0.4154**	**5.2300e-003**	**0.4206**	**0.1125**	**4.9200e-003**	**0.1174**		**743.6169**	**743.6169**	**0.0335**		**744.4546**

3.10 Supply Chain Services Warehouse - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0456	1.4773	0.3842	4.0800e-003	0.1024	2.7800e-003	0.1052	0.0295	2.6600e-003	0.0322		435.9774	435.9774	0.0250		436.6029
Worker	0.1124	0.0745	1.0405	3.0900e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		307.6395	307.6395	8.4900e-003		307.8517
Total	**0.1581**	**1.5518**	**1.4247**	**7.1700e-003**	**0.4154**	**5.2300e-003**	**0.4206**	**0.1125**	**4.9200e-003**	**0.1174**		**743.6169**	**743.6169**	**0.0335**		**744.4546**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1649	20.1261	21.2928	0.0335		1.0940	1.0940		1.0258	1.0258		3,192.7073	3,192.7073	0.8228		3,213.2770
Total	**2.1649**	**20.1261**	**21.2928**	**0.0335**		**1.0940**	**1.0940**		**1.0258**	**1.0258**		**3,192.7073**	**3,192.7073**	**0.8228**		**3,213.2770**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0304	0.9709	0.2538	2.5700e-003	0.0640	1.9900e-003	0.0660	0.0184	1.9000e-003	0.0203		274.8806	274.8806	0.0162		275.2855
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.0990**	**1.0180**	**0.8983**	**4.4000e-003**	**0.2429**	**3.4400e-003**	**0.2463**	**0.0659**	**3.2300e-003**	**0.0691**		**457.0838**	**457.0838**	**0.0216**		**457.6229**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1649	20.1261	21.2928	0.0335		1.0940	1.0940		1.0258	1.0258	0.0000	3,192.7073	3,192.7073	0.8228		3,213.2770
Total	**2.1649**	**20.1261**	**21.2928**	**0.0335**		**1.0940**	**1.0940**		**1.0258**	**1.0258**	**0.0000**	**3,192.7073**	**3,192.7073**	**0.8228**		**3,213.2770**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0304	0.9709	0.2538	2.5700e-003	0.0640	1.9900e-003	0.0660	0.0184	1.9000e-003	0.0203		274.8806	274.8806	0.0162		275.2855
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.0990**	**1.0180**	**0.8983**	**4.4000e-003**	**0.2429**	**3.4400e-003**	**0.2463**	**0.0659**	**3.2300e-003**	**0.0691**		**457.0838**	**457.0838**	**0.0216**		**457.6229**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9366	17.9145	21.0991	0.0335		0.9194	0.9194		0.8627	0.8627		3,193.9433	3,193.9433	0.8188		3,214.4134
Total	**1.9366**	**17.9145**	**21.0991**	**0.0335**		**0.9194**	**0.9194**		**0.8627**	**0.8627**		**3,193.9433**	**3,193.9433**	**0.8188**		**3,214.4134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.9233	0.2402	2.5500e-003	0.0640	1.7400e-003	0.0658	0.0184	1.6600e-003	0.0201		272.4859	272.4859	0.0156		272.8768
Worker	0.0642	0.0426	0.5946	1.7600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		175.7940	175.7940	4.8500e-003		175.9153
Total	**0.0928**	**0.9659**	**0.8347**	**4.3100e-003**	**0.2429**	**3.1400e-003**	**0.2460**	**0.0659**	**2.9500e-003**	**0.0688**		**448.2799**	**448.2799**	**0.0205**		**448.7921**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9366	17.9145	21.0991	0.0335		0.9194	0.9194		0.8627	0.8627	0.0000	3,193.9432	3,193.9432	0.8188		3,214.4134
Total	**1.9366**	**17.9145**	**21.0991**	**0.0335**		**0.9194**	**0.9194**		**0.8627**	**0.8627**	**0.0000**	**3,193.9432**	**3,193.9432**	**0.8188**		**3,214.4134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.9233	0.2402	2.5500e-003	0.0640	1.7400e-003	0.0658	0.0184	1.6600e-003	0.0201		272.4859	272.4859	0.0156		272.8768
Worker	0.0642	0.0426	0.5946	1.7600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		175.7940	175.7940	4.8500e-003		175.9153
Total	**0.0928**	**0.9659**	**0.8347**	**4.3100e-003**	**0.2429**	**3.1400e-003**	**0.2460**	**0.0659**	**2.9500e-003**	**0.0688**		**448.2799**	**448.2799**	**0.0205**		**448.7921**

3.12 Street Improvement of Hazeltine Avenue - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2225	32.0722	25.7615	0.0484		1.5133	1.5133		1.4091	1.4091		4,635.6278	4,635.6278	1.2851		4,667.7547
Total	**3.2225**	**32.0722**	**25.7615**	**0.0484**		**1.5133**	**1.5133**		**1.4091**	**1.4091**		**4,635.6278**	**4,635.6278**	**1.2851**		**4,667.7547**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2939	9.2291	2.3058	0.0285	0.7658	0.0265	0.7923	0.2065	0.0254	0.2319		3,097.9073	3,097.9073	0.2096		3,103.1463
Vendor	5.7100e-003	0.1847	0.0480	5.1000e-004	0.0128	3.5000e-004	0.0132	3.6900e-003	3.3000e-004	4.0200e-003		54.4972	54.4972	3.1300e-003		54.5754
Worker	0.0642	0.0426	0.5946	1.7600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		175.7940	175.7940	4.8500e-003		175.9153
Total	**0.3638**	**9.4564**	**2.9484**	**0.0308**	**0.9575**	**0.0283**	**0.9857**	**0.2577**	**0.0270**	**0.2846**		**3,328.1984**	**3,328.1984**	**0.2175**		**3,333.6369**

3.12 Street Improvement of Hazeltine Avenue - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2225	32.0722	25.7615	0.0484		1.5133	1.5133		1.4091	1.4091	0.0000	4,635.6278	4,635.6278	1.2851		4,667.7547
Total	**3.2225**	**32.0722**	**25.7615**	**0.0484**		**1.5133**	**1.5133**		**1.4091**	**1.4091**	**0.0000**	**4,635.6278**	**4,635.6278**	**1.2851**		**4,667.7547**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2939	9.2291	2.3058	0.0285	0.7658	0.0265	0.7923	0.2065	0.0254	0.2319		3,097.9073	3,097.9073	0.2096		3,103.1463
Vendor	5.7100e-003	0.1847	0.0480	5.1000e-004	0.0128	3.5000e-004	0.0132	3.6900e-003	3.3000e-004	4.0200e-003		54.4972	54.4972	3.1300e-003		54.5754
Worker	0.0642	0.0426	0.5946	1.7600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		175.7940	175.7940	4.8500e-003		175.9153
Total	**0.3638**	**9.4564**	**2.9484**	**0.0308**	**0.9575**	**0.0283**	**0.9857**	**0.2577**	**0.0270**	**0.2846**		**3,328.1984**	**3,328.1984**	**0.2175**		**3,333.6369**

3.12 Street Improvement of Hazeltine Avenue - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8863	28.2896	25.1375	0.0484		1.2756	1.2756		1.1883	1.1883		4,636.2626	4,636.2626	1.2809		4,668.2851
Total	**2.8863**	**28.2896**	**25.1375**	**0.0484**		**1.2756**	**1.2756**		**1.1883**	**1.1883**		**4,636.2626**	**4,636.2626**	**1.2809**		**4,668.2851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1928	6.0885	2.1048	0.0273	2.6763	0.0110	2.6873	0.6755	0.0106	0.6860		2,968.7586	2,968.7586	0.1950		2,973.6347
Vendor	4.2300e-003	0.1401	0.0434	4.9000e-004	0.0128	1.6000e-004	0.0130	3.6900e-003	1.5000e-004	3.8400e-003		52.7815	52.7815	2.7700e-003		52.8508
Worker	0.0603	0.0385	0.5475	1.7000e-003	0.1788	1.3600e-003	0.1802	0.0474	1.2500e-003	0.0487		169.3571	169.3571	4.3700e-003		169.4665
Total	**0.2573**	**6.2672**	**2.6957**	**0.0295**	**2.8680**	**0.0126**	**2.8805**	**0.7266**	**0.0120**	**0.7386**		**3,190.8972**	**3,190.8972**	**0.2022**		**3,195.9519**

3.12 Street Improvement of Hazeltine Avenue - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8863	28.2896	25.1375	0.0484		1.2756	1.2756		1.1883	1.1883	0.0000	4,636.2626	4,636.2626	1.2809		4,668.2851
Total	**2.8863**	**28.2896**	**25.1375**	**0.0484**		**1.2756**	**1.2756**		**1.1883**	**1.1883**	**0.0000**	**4,636.2626**	**4,636.2626**	**1.2809**		**4,668.2851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1928	6.0885	2.1048	0.0273	2.6763	0.0110	2.6873	0.6755	0.0106	0.6860		2,968.7586	2,968.7586	0.1950		2,973.6347
Vendor	4.2300e-003	0.1401	0.0434	4.9000e-004	0.0128	1.6000e-004	0.0130	3.6900e-003	1.5000e-004	3.8400e-003		52.7815	52.7815	2.7700e-003		52.8508
Worker	0.0603	0.0385	0.5475	1.7000e-003	0.1788	1.3600e-003	0.1802	0.0474	1.2500e-003	0.0487		169.3571	169.3571	4.3700e-003		169.4665
Total	**0.2573**	**6.2672**	**2.6957**	**0.0295**	**2.8680**	**0.0126**	**2.8805**	**0.7266**	**0.0120**	**0.7386**		**3,190.8972**	**3,190.8972**	**0.2022**		**3,195.9519**

3.13 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	68.0396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**68.2441**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0628	2.0313	0.5283	5.6000e-003	0.1409	3.8200e-003	0.1447	0.0406	3.6500e-003	0.0442		599.4690	599.4690	0.0344		600.3290
Worker	0.1767	0.1171	1.6351	4.8500e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		483.4334	483.4334	0.0133		483.7670
Total	**0.2394**	**2.1484**	**2.1634**	**0.0105**	**0.6327**	**7.6700e-003**	**0.6403**	**0.1710**	**7.2000e-003**	**0.1782**		**1,082.9024**	**1,082.9024**	**0.0477**		**1,084.0960**

3.13 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	68.0396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**68.2441**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0628	2.0313	0.5283	5.6000e-003	0.1409	3.8200e-003	0.1447	0.0406	3.6500e-003	0.0442		599.4690	599.4690	0.0344		600.3290
Worker	0.1767	0.1171	1.6351	4.8500e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		483.4334	483.4334	0.0133		483.7670
Total	**0.2394**	**2.1484**	**2.1634**	**0.0105**	**0.6327**	**7.6700e-003**	**0.6403**	**0.1710**	**7.2000e-003**	**0.1782**		**1,082.9024**	**1,082.9024**	**0.0477**		**1,084.0960**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1293	4.6555	4.1208	8.5000e-003	0.2026	9.0700e-003	0.2117	0.0542	8.3800e-003	0.0626		888.0088	888.0088	0.0783		889.9654
Unmitigated	1.1293	4.6555	4.1208	8.5000e-003	0.2026	9.0700e-003	0.2117	0.0542	8.3800e-003	0.0626		888.0088	888.0088	0.0783		889.9654

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Light Industry	1,359.52	257.52	132.24	67,339	67,339
General Light Industry	93.76	17.76	9.12	4,644	4,644
General Office Building	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	1,453.28	275.28	141.36	71,983	71,983

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	0.19	0.19	0.19	59.00	28.00	13.00	92	5	3
General Light Industry	0.19	0.19	0.19	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking Structure	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Light Industry	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Office Building	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Other Asphalt Surfaces	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Research & Development	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Unrefrigerated Warehouse-No Rail	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
NaturalGas Unmitigated	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	446.301	4.8100e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5060	52.5060	1.0100e-003	9.6000e-004	52.8181
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	396.712	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003		46.6720	46.6720	8.9000e-004	8.6000e-004	46.9494
General Light Industry	5752.33	0.0620	0.5640	0.4737	3.3800e-003		0.0429	0.0429		0.0429	0.0429		676.7446	676.7446	0.0130	0.0124	680.7661
General Office Building	1967.92	0.0212	0.1929	0.1621	1.1600e-003		0.0147	0.0147		0.0147	0.0147		231.5197	231.5197	4.4400e-003	4.2400e-003	232.8956
General Office Building	85.5616	9.2000e-004	8.3900e-003	7.0500e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.0661	10.0661	1.9000e-004	1.8000e-004	10.1259
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	942.192	0.0102	0.0924	0.0776	5.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003		110.8461	110.8461	2.1200e-003	2.0300e-003	111.5048
Unrefrigerated Warehouse-No Rail	171.616	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003		20.1902	20.1902	3.9000e-004	3.7000e-004	20.3102
Total		**0.1053**	**0.9571**	**0.8040**	**5.7300e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,148.5447**	**1,148.5447**	**0.0220**	**0.0211**	**1,155.3700**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.446301	4.8100e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5060	52.5060	1.0100e-003	9.6000e-004	52.8181
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0.396712	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003		46.6720	46.6720	8.9000e-004	8.6000e-004	46.9494
General Light Industry	5.75233	0.0620	0.5640	0.4737	3.3800e-003		0.0429	0.0429		0.0429	0.0429		676.7446	676.7446	0.0130	0.0124	680.7661
General Office Building	0.0855616	9.2000e-004	8.3900e-003	7.0500e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.0661	10.0661	1.9000e-004	1.8000e-004	10.1259
General Office Building	1.96792	0.0212	0.1929	0.1621	1.1600e-003		0.0147	0.0147		0.0147	0.0147		231.5197	231.5197	4.4400e-003	4.2400e-003	232.8956
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0.942192	0.0102	0.0924	0.0776	5.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003		110.8461	110.8461	2.1200e-003	2.0300e-003	111.5048
Unrefrigerated Warehouse-No Rail	0.171616	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003		20.1902	20.1902	3.9000e-004	3.7000e-004	20.3102
Total		**0.1053**	**0.9571**	**0.8040**	**5.7300e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,148.5447**	**1,148.5447**	**0.0220**	**0.0211**	**1,155.3700**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Unmitigated	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6100e-003	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Total	**6.7952**	**6.5000e-004**	**0.0718**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.0000e-004**		**0.1643**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6100e-003	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Total	**6.7952**	**6.5000e-004**	**0.0718**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.0000e-004**		**0.1643**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	4.00	260	89	0.20	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.4345	4.0927	5.6688	7.6400e-003		0.2191	0.2191		0.2016	0.2016		740.1542	740.1542	0.2394		746.1387
Total	**0.4345**	**4.0927**	**5.6688**	**7.6400e-003**		**0.2191**	**0.2191**		**0.2016**	**0.2016**		**740.1542**	**740.1542**	**0.2394**		**746.1387**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mid Valley Water Facility Unmitigated

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	69.00	1000sqft	1.58	69,000.00	0
General Office Building	3.00	1000sqft	0.07	3,000.00	0
Research & Development	19.00	1000sqft	0.44	19,000.00	0
General Light Industry	116.00	1000sqft	2.66	116,000.00	0
General Light Industry	8.00	1000sqft	0.18	8,000.00	0
Unrefrigerated Warehouse-No Rail	72.00	1000sqft	1.65	72,000.00	0
Enclosed Parking Structure	216.00	1000sqft	4.96	216,000.00	0
Other Asphalt Surfaces	181.00	1000sqft	4.16	181,000.00	0
Other Asphalt Surfaces	12.00	1000sqft	0.28	12,000.00	0
Automobile Care Center	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	758.16	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Los Angeles Department of Water and Power adjusted for 43.2% RPS in 2026

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Grading - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Vehicle Trips - Data provided by Traffic Report.

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Operational Off-Road Equipment - Data provided by applicant.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	42.00

tblConstructionPhase	NumDays	300.00	22.00
tblConstructionPhase	NumDays	300.00	108.00
tblConstructionPhase	NumDays	30.00	130.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	300.00	195.00
tblConstructionPhase	NumDays	300.00	238.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	300.00	238.00
tblGrading	AcresOfGrading	325.00	6.57
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts

tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Pavers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	7.00	4.00
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tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	1227.89	758.16
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	HaulingTripNumber	0.00	11,118.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,000.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	116.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	0.00
tblTripsAndVMT	VendorTripNumber	116.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	22.00
tblTripsAndVMT	VendorTripNumber	116.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	16.00
tblTripsAndVMT	VendorTripNumber	116.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	116.00	12.00
tblTripsAndVMT	VendorTripNumber	116.00	24.00

tblTripsAndVMT	WorkerTripNumber	20.00	16.00
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tblTripsAndVMT	WorkerTripNumber	286.00	0.00
tblTripsAndVMT	WorkerTripNumber	286.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	286.00	16.00
tblTripsAndVMT	WorkerTripNumber	57.00	44.00
tblTripsAndVMT	WorkerTripNumber	286.00	68.00
tblTripsAndVMT	WorkerTripNumber	286.00	28.00
tblTripsAndVMT	WorkerTripNumber	286.00	16.00
tblTripsAndVMT	WorkerTripNumber	286.00	18.00
tblTripsAndVMT	WorkerTripNumber	286.00	48.00
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	ST_TR	1.32	2.22
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	0.68	1.14
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	6.97	11.72
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.2424	74.7465	37.1757	0.1299	18.2803	2.2711	20.4804	9.9877	2.0924	12.0119	0.0000	13,369.4354	13,369.4354	2.3855	0.0000	13,429.0719
2021	11.4382	91.9127	92.0064	0.1736	8.0058	4.5099	10.0707	3.8367	4.2938	5.7390	0.0000	16,446.4334	16,446.4334	2.8737	0.0000	16,518.2764
2022	72.0699	83.6387	90.3452	0.1727	2.4122	3.8401	6.2523	0.6493	3.6585	4.3078	0.0000	16,362.5537	16,362.5537	2.8259	0.0000	16,433.2012
2023	3.1436	34.5567	27.8332	0.0779	2.8680	1.2882	4.1562	0.7266	1.2002	1.9268	0.0000	7,827.1598	7,827.1598	1.4831	0.0000	7,864.2370
Maximum	**72.0699**	**91.9127**	**92.0064**	**0.1736**	**18.2803**	**4.5099**	**20.4804**	**9.9877**	**4.2938**	**12.0119**	**0.0000**	**16,446.4334**	**16,446.4334**	**2.8737**	**0.0000**	**16,518.2764**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.2424	74.7465	37.1757	0.1299	9.3168	2.2711	11.5879	3.9300	2.0924	5.9541	0.0000	13,369.4354	13,369.4354	2.3855	0.0000	13,429.0719
2021	11.4382	91.9127	92.0064	0.1736	4.2996	4.5099	6.9221	1.8139	4.2938	4.9431	0.0000	16,446.4333	16,446.4333	2.8737	0.0000	16,518.2764
2022	72.0699	83.6387	90.3452	0.1727	2.4122	3.8401	6.2523	0.6493	3.6585	4.3078	0.0000	16,362.5537	16,362.5537	2.8259	0.0000	16,433.2012
2023	3.1436	34.5567	27.8332	0.0779	2.8680	1.2882	4.1562	0.7266	1.2002	1.9268	0.0000	7,827.1598	7,827.1598	1.4831	0.0000	7,864.2370
Maximum	**72.0699**	**91.9127**	**92.0064**	**0.1736**	**9.3168**	**4.5099**	**11.5879**	**3.9300**	**4.2938**	**5.9541**	**0.0000**	**16,446.4333**	**16,446.4333**	**2.8737**	**0.0000**	**16,518.2764**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**40.14**	**0.00**	**29.40**	**53.16**	**0.00**	**28.57**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Energy	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
Mobile	2.3385	10.4598	34.7547	0.1481	13.6808	0.1065	13.7873	3.6602	0.0989	3.7591		15,110.1688	15,110.1688	0.6524		15,126.4793
Offroad	0.4366	4.1132	5.6971	7.6800e-003		0.2202	0.2202		0.2026	0.2026		743.8549	743.8549	0.2406		749.8694
Total	**9.6756**	**15.5308**	**41.3275**	**0.1615**	**13.6808**	**0.3997**	**14.0805**	**3.6602**	**0.3745**	**4.0346**		**17,002.7227**	**17,002.7227**	**0.9154**	**0.0211**	**17,031.8829**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Energy	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
Mobile	2.3385	10.4598	34.7547	0.1481	13.6808	0.1065	13.7873	3.6602	0.0989	3.7591		15,110.1688	15,110.1688	0.6524		15,126.4793
Offroad	0.4366	4.1132	5.6971	7.6800e-003		0.2202	0.2202		0.2026	0.2026		743.8549	743.8549	0.2406		749.8694
Total	**9.6756**	**15.5308**	**41.3275**	**0.1615**	**13.6808**	**0.3997**	**14.0805**	**3.6602**	**0.3745**	**4.0346**		**17,002.7227**	**17,002.7227**	**0.9154**	**0.0211**	**17,031.8829**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Mid Valley Water Facility Unmitigated - Los Angeles-South Coast County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2020	11/30/2020	5	21	
2	Grading	Grading	12/1/2020	5/31/2021	5	130	
3	Perimeter Walls Construction	Building Construction	7/1/2021	7/30/2021	5	22	
4	Paving & Site Infrastructure	Paving	8/1/2021	8/21/2021	5	15	
5	Street Improvement of Hazeltine Avenue	Building Construction	9/1/2022	1/30/2023	5	108	
6	Architectural Coating	Architectural Coating	9/1/2022	10/30/2022	5	42	
7	Trenching & Underground Utilities	Trenching	7/1/2021	7/30/2021	5	22	
8	Office Building & Staff Parking	Building Construction	9/1/2021	5/31/2022	5	195	
9	Water Distribution Shop and Maintenance Building	Building Construction	9/1/2021	7/30/2022	5	238	
10	Department Fleet Vehicles Parking	Building Construction	9/1/2021	8/31/2022	5	261	
11	Supply Chain Services Warehouse	Building Construction	9/1/2021	8/31/2022	5	261	
12	Fleet Maintenance Building and CNG Dispensing Area	Building Construction	9/1/2021	7/30/2022	5	238	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.57

Acres of Paving: 9.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 444,000; Non-Residential Outdoor: 148,000; Striped Parking Area: 24,540 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Office Building & Staff Parking	Cranes	1	4.00	231	0.29
Office Building & Staff Parking	Forklifts	2	6.00	89	0.20
Office Building & Staff Parking	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Office Building & Staff Parking	Forklifts	2	7.00	89	0.20
Office Building & Staff Parking	Generator Sets	1	8.00	84	0.74
Office Building & Staff Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Office Building & Staff Parking	Welders	3	8.00	46	0.45
Water Distribution Shop and Maintenance Building	Cranes	1	8.00	231	0.29
Water Distribution Shop and Maintenance Building	Forklifts	2	7.00	89	0.20
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Perimeter Walls Construction	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Perimeter Walls Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Street Improvement of Hazeltine Avenue	Excavators	1	8.00	158	0.38
Street Improvement of Hazeltine Avenue	Graders	1	8.00	187	0.41
Street Improvement of Hazeltine Avenue	Rubber Tired Dozers	1	8.00	247	0.40
Trenching & Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching & Underground Utilities	Plate Compactors	1	8.00	8	0.43
Trenching & Underground Utilities	Trenchers	1	8.00	78	0.50
Water Distribution Shop and Maintenance Building	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Water Distribution Shop and Maintenance Building	Welders	3	8.00	46	0.45
Water Distribution Shop and Maintenance Building	Generator Sets	1	8.00	84	0.74
Department Fleet Vehicles Parking	Cranes	1	8.00	231	0.29
Department Fleet Vehicles Parking	Forklifts	2	7.00	89	0.20

Department Fleet Vehicles Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Department Fleet Vehicles Parking	Welders	3	8.00	46	0.45
Paving & Site Infrastructure	Pavers	2	8.00	130	0.42
Department Fleet Vehicles Parking	Generator Sets	1	8.00	84	0.74
Supply Chain Services Warehouse	Cranes	1	6.00	231	0.29
Architectural Coating	Air Compressors	1	6.00	78	0.48
Supply Chain Services Warehouse	Forklifts	1	6.00	89	0.20
Supply Chain Services Warehouse	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Supply Chain Services Warehouse	Welders	3	8.00	46	0.45
Street Improvement of Hazeltine Avenue	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Supply Chain Services Warehouse	Generator Sets	1	8.00	84	0.74
Perimeter Walls Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Perimeter Walls Construction	Paving Equipment	1	8.00	132	0.36
Fleet Maintenance Building and CNG Dispensing Area	Cranes	1	4.00	231	0.29
Fleet Maintenance Building and CNG Dispensing Area	Forklifts	2	6.00	89	0.20
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Pavers	1	6.00	130	0.42
Fleet Maintenance Building and CNG Dispensing Area	Rollers	1	7.00	80	0.38
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Paving Equipment	1	8.00	132	0.36
Perimeter Walls Construction	Cranes	1	7.00	231	0.29
Street Improvement of Hazeltine Avenue	Cranes	1	7.00	231	0.29
Perimeter Walls Construction	Forklifts	3	8.00	89	0.20
Street Improvement of Hazeltine Avenue	Forklifts	3	8.00	89	0.20
Fleet Maintenance Building and CNG Dispensing Area	Generator Sets	1	8.00	84	0.74

Perimeter Walls Construction	Generator Sets	1	8.00	84	0.74
Street Improvement of Hazeltine Avenue	Generator Sets	1	8.00	84	0.74
Paving & Site Infrastructure	Paving Equipment	2	8.00	132	0.36
Paving & Site Infrastructure	Rollers	2	8.00	80	0.38
Grading	Scrapers	2	8.00	367	0.48
Perimeter Walls Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Welders	1	8.00	46	0.45
Perimeter Walls Construction	Welders	1	8.00	46	0.45
Street Improvement of Hazeltine Avenue	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	16.00	2.00	11,118.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	6.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Infrastructure	6	16.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	44.00	22.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Street Improvement of Hazeltine Avenue	12	16.00	2.00	4,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Department Fleet Vehicles Parking	8	68.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Supply Chain Services Warehouse	7	28.00	16.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fleet Maintenance Building and CNG Dis	11	16.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching & Underground Utilities	4	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Office Building & Staff Parking	12	18.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Water Distribution Shop and Maintenanc	8	48.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0900**	**0.2717**	**0.8439**	**2.6500e-003**	**0.2140**	**2.6800e-003**	**0.2167**	**0.0571**	**2.5100e-003**	**0.0596**		**267.1053**	**267.1053**	**0.0101**		**267.3566**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0900**	**0.2717**	**0.8439**	**2.6500e-003**	**0.2140**	**2.6800e-003**	**0.2167**	**0.0571**	**2.5100e-003**	**0.0596**		**267.1053**	**267.1053**	**0.0101**		**267.3566**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0757	0.0000	6.0757	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	4.4146	49.8900	30.9702	0.0599		2.1902	2.1902		2.0149	2.0149		5,806.5154	5,806.5154	1.8779		5,853.4640
Total	**4.4146**	**49.8900**	**30.9702**	**0.0599**	**6.0757**	**2.1902**	**8.2658**	**3.3160**	**2.0149**	**5.3310**		**5,806.5154**	**5,806.5154**	**1.8779**		**5,853.4640**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7470	24.5914	5.4492	0.0676	6.7556	0.0785	6.8341	1.7011	0.0751	1.7761		7,319.3370	7,319.3370	0.4982		7,331.7920
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0736	0.0524	0.7006	1.8900e-003	0.1788	1.4900e-003	0.1803	0.0474	1.3800e-003	0.0488		188.1781	188.1781	5.9300e-003		188.3264
Total	**0.8278**	**24.8565**	**6.2055**	**0.0700**	**6.9472**	**0.0810**	**7.0282**	**1.7522**	**0.0774**	**1.8296**		**7,562.9200**	**7,562.9200**	**0.5075**		**7,575.6079**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3695	0.0000	2.3695	1.2933	0.0000	1.2933			0.0000			0.0000
Off-Road	4.4146	49.8900	30.9702	0.0599		2.1902	2.1902		2.0149	2.0149	0.0000	5,806.5154	5,806.5154	1.8779		5,853.4640
Total	**4.4146**	**49.8900**	**30.9702**	**0.0599**	**2.3695**	**2.1902**	**4.5597**	**1.2933**	**2.0149**	**3.3082**	**0.0000**	**5,806.5154**	**5,806.5154**	**1.8779**		**5,853.4640**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7470	24.5914	5.4492	0.0676	6.7556	0.0785	6.8341	1.7011	0.0751	1.7761		7,319.3370	7,319.3370	0.4982		7,331.7920
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0736	0.0524	0.7006	1.8900e-003	0.1788	1.4900e-003	0.1803	0.0474	1.3800e-003	0.0488		188.1781	188.1781	5.9300e-003		188.3264
Total	**0.8278**	**24.8565**	**6.2055**	**0.0700**	**6.9472**	**0.0810**	**7.0282**	**1.7522**	**0.0774**	**1.8296**		**7,562.9200**	**7,562.9200**	**0.5075**		**7,575.6079**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0757	0.0000	6.0757	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	4.1493	46.1422	29.8669	0.0600		1.9927	1.9927		1.8333	1.8333		5,807.7515	5,807.7515	1.8783		5,854.7102
Total	**4.1493**	**46.1422**	**29.8669**	**0.0600**	**6.0757**	**1.9927**	**8.0684**	**3.3160**	**1.8333**	**5.1493**		**5,807.7515**	**5,807.7515**	**1.8783**		**5,854.7102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7131	22.9410	5.3790	0.0667	1.7385	0.0704	1.8089	0.4696	0.0674	0.5369		7,239.0690	7,239.0690	0.4913		7,251.3507
Vendor	6.0800e-003	0.1942	0.0508	5.1000e-004	0.0128	4.0000e-004	0.0132	3.6900e-003	3.8000e-004	4.0700e-003		54.9761	54.9761	3.2400e-003		55.0571
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.7877**	**23.1823**	**6.0742**	**0.0691**	**1.9301**	**0.0723**	**2.0024**	**0.5207**	**0.0691**	**0.5898**		**7,476.2483**	**7,476.2483**	**0.4999**		**7,488.7452**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3695	0.0000	2.3695	1.2933	0.0000	1.2933			0.0000			0.0000
Off-Road	4.1493	46.1422	29.8669	0.0600		1.9927	1.9927		1.8333	1.8333	0.0000	5,807.7515	5,807.7515	1.8783		5,854.7102
Total	**4.1493**	**46.1422**	**29.8669**	**0.0600**	**2.3695**	**1.9927**	**4.3622**	**1.2933**	**1.8333**	**3.1265**	**0.0000**	**5,807.7515**	**5,807.7515**	**1.8783**		**5,854.7102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7131	22.9410	5.3790	0.0667	1.7385	0.0704	1.8089	0.4696	0.0674	0.5369		7,239.0690	7,239.0690	0.4913		7,251.3507
Vendor	6.0800e-003	0.1942	0.0508	5.1000e-004	0.0128	4.0000e-004	0.0132	3.6900e-003	3.8000e-004	4.0700e-003		54.9761	54.9761	3.2400e-003		55.0571
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.7877**	**23.1823**	**6.0742**	**0.0691**	**1.9301**	**0.0723**	**2.0024**	**0.5207**	**0.0691**	**0.5898**		**7,476.2483**	**7,476.2483**	**0.4999**		**7,488.7452**

3.4 Perimeter Walls Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7947	25.8012	25.1730	0.0474		1.3335	1.3335		1.2612	1.2612		4,503.0630	4,503.0630	1.0782		4,530.0187
Total	**2.7947**	**25.8012**	**25.1730**	**0.0474**		**1.3335**	**1.3335**		**1.2612**	**1.2612**		**4,503.0630**	**4,503.0630**	**1.0782**		**4,530.0187**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0621	7.9000e-004	0.0629	0.0163	7.6000e-004	0.0171		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.0257	0.0177	0.2417	6.9000e-004	0.1837	5.4000e-004	0.1842	0.0464	5.0000e-004	0.0469		68.3262	68.3262	2.0100e-003		68.3765
Total	**0.0379**	**0.4060**	**0.3432**	**1.7200e-003**	**0.2458**	**1.3300e-003**	**0.2471**	**0.0627**	**1.2600e-003**	**0.0640**		**178.2784**	**178.2784**	**8.4900e-003**		**178.4907**

3.4 Perimeter Walls Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7947	25.8012	25.1730	0.0474		1.3335	1.3335		1.2612	1.2612	0.0000	4,503.0630	4,503.0630	1.0782		4,530.0187
Total	**2.7947**	**25.8012**	**25.1730**	**0.0474**		**1.3335**	**1.3335**		**1.2612**	**1.2612**	**0.0000**	**4,503.0630**	**4,503.0630**	**1.0782**		**4,530.0187**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0621	7.9000e-004	0.0629	0.0163	7.6000e-004	0.0171		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.0257	0.0177	0.2417	6.9000e-004	0.1837	5.4000e-004	0.1842	0.0464	5.0000e-004	0.0469		68.3262	68.3262	2.0100e-003		68.3765
Total	**0.0379**	**0.4060**	**0.3432**	**1.7200e-003**	**0.2458**	**1.3300e-003**	**0.2471**	**0.0627**	**1.2600e-003**	**0.0640**		**178.2784**	**178.2784**	**8.4900e-003**		**178.4907**

3.5 Paving & Site Infrastructure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0311**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.0807**	**0.4355**	**0.7460**	**2.8600e-003**	**0.2045**	**2.2400e-003**	**0.2067**	**0.0548**	**2.0900e-003**	**0.0569**		**292.1554**	**292.1554**	**0.0119**		**292.4516**

3.5 Paving & Site Infrastructure - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0311**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.0807**	**0.4355**	**0.7460**	**2.8600e-003**	**0.2045**	**2.2400e-003**	**0.2067**	**0.0548**	**2.0900e-003**	**0.0569**		**292.1554**	**292.1554**	**0.0119**		**292.4516**

3.6 Street Improvement of Hazeltine Avenue - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2225	32.0722	25.7615	0.0484		1.5133	1.5133		1.4091	1.4091		4,635.6278	4,635.6278	1.2851		4,667.7547
Total	**3.2225**	**32.0722**	**25.7615**	**0.0484**		**1.5133**	**1.5133**		**1.4091**	**1.4091**		**4,635.6278**	**4,635.6278**	**1.2851**		**4,667.7547**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2939	9.2291	2.3058	0.0285	0.7658	0.0265	0.7923	0.2065	0.0254	0.2319		3,097.9073	3,097.9073	0.2096		3,103.1463
Vendor	5.7100e-003	0.1847	0.0480	5.1000e-004	0.0128	3.5000e-004	0.0132	3.6900e-003	3.3000e-004	4.0200e-003		54.4972	54.4972	3.1300e-003		54.5754
Worker	0.0642	0.0426	0.5946	1.7600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		175.7940	175.7940	4.8500e-003		175.9153
Total	**0.3638**	**9.4564**	**2.9484**	**0.0308**	**0.9575**	**0.0283**	**0.9857**	**0.2577**	**0.0270**	**0.2846**		**3,328.1984**	**3,328.1984**	**0.2175**		**3,333.6369**

3.6 Street Improvement of Hazeltine Avenue - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2225	32.0722	25.7615	0.0484		1.5133	1.5133		1.4091	1.4091	0.0000	4,635.6278	4,635.6278	1.2851		4,667.7547
Total	**3.2225**	**32.0722**	**25.7615**	**0.0484**		**1.5133**	**1.5133**		**1.4091**	**1.4091**	**0.0000**	**4,635.6278**	**4,635.6278**	**1.2851**		**4,667.7547**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2939	9.2291	2.3058	0.0285	0.7658	0.0265	0.7923	0.2065	0.0254	0.2319		3,097.9073	3,097.9073	0.2096		3,103.1463
Vendor	5.7100e-003	0.1847	0.0480	5.1000e-004	0.0128	3.5000e-004	0.0132	3.6900e-003	3.3000e-004	4.0200e-003		54.4972	54.4972	3.1300e-003		54.5754
Worker	0.0642	0.0426	0.5946	1.7600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		175.7940	175.7940	4.8500e-003		175.9153
Total	**0.3638**	**9.4564**	**2.9484**	**0.0308**	**0.9575**	**0.0283**	**0.9857**	**0.2577**	**0.0270**	**0.2846**		**3,328.1984**	**3,328.1984**	**0.2175**		**3,333.6369**

3.6 Street Improvement of Hazeltine Avenue - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8863	28.2896	25.1375	0.0484		1.2756	1.2756		1.1883	1.1883		4,636.2626	4,636.2626	1.2809		4,668.2851
Total	**2.8863**	**28.2896**	**25.1375**	**0.0484**		**1.2756**	**1.2756**		**1.1883**	**1.1883**		**4,636.2626**	**4,636.2626**	**1.2809**		**4,668.2851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1928	6.0885	2.1048	0.0273	2.6763	0.0110	2.6873	0.6755	0.0106	0.6860		2,968.7586	2,968.7586	0.1950		2,973.6347
Vendor	4.2300e-003	0.1401	0.0434	4.9000e-004	0.0128	1.6000e-004	0.0130	3.6900e-003	1.5000e-004	3.8400e-003		52.7815	52.7815	2.7700e-003		52.8508
Worker	0.0603	0.0385	0.5475	1.7000e-003	0.1788	1.3600e-003	0.1802	0.0474	1.2500e-003	0.0487		169.3571	169.3571	4.3700e-003		169.4665
Total	**0.2573**	**6.2672**	**2.6957**	**0.0295**	**2.8680**	**0.0126**	**2.8805**	**0.7266**	**0.0120**	**0.7386**		**3,190.8972**	**3,190.8972**	**0.2022**		**3,195.9519**

3.6 Street Improvement of Hazeltine Avenue - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8863	28.2896	25.1375	0.0484		1.2756	1.2756		1.1883	1.1883	0.0000	4,636.2626	4,636.2626	1.2809		4,668.2851
Total	**2.8863**	**28.2896**	**25.1375**	**0.0484**		**1.2756**	**1.2756**		**1.1883**	**1.1883**	**0.0000**	**4,636.2626**	**4,636.2626**	**1.2809**		**4,668.2851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1928	6.0885	2.1048	0.0273	2.6763	0.0110	2.6873	0.6755	0.0106	0.6860		2,968.7586	2,968.7586	0.1950		2,973.6347
Vendor	4.2300e-003	0.1401	0.0434	4.9000e-004	0.0128	1.6000e-004	0.0130	3.6900e-003	1.5000e-004	3.8400e-003		52.7815	52.7815	2.7700e-003		52.8508
Worker	0.0603	0.0385	0.5475	1.7000e-003	0.1788	1.3600e-003	0.1802	0.0474	1.2500e-003	0.0487		169.3571	169.3571	4.3700e-003		169.4665
Total	**0.2573**	**6.2672**	**2.6957**	**0.0295**	**2.8680**	**0.0126**	**2.8805**	**0.7266**	**0.0120**	**0.7386**		**3,190.8972**	**3,190.8972**	**0.2022**		**3,195.9519**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	68.0396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**68.2441**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0628	2.0313	0.5283	5.6000e-003	0.1409	3.8200e-003	0.1447	0.0406	3.6500e-003	0.0442		599.4690	599.4690	0.0344		600.3290
Worker	0.1767	0.1171	1.6351	4.8500e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		483.4334	483.4334	0.0133		483.7670
Total	**0.2394**	**2.1484**	**2.1634**	**0.0105**	**0.6327**	**7.6700e-003**	**0.6403**	**0.1710**	**7.2000e-003**	**0.1782**		**1,082.9024**	**1,082.9024**	**0.0477**		**1,084.0960**

3.7 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	68.0396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**68.2441**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0628	2.0313	0.5283	5.6000e-003	0.1409	3.8200e-003	0.1447	0.0406	3.6500e-003	0.0442		599.4690	599.4690	0.0344		600.3290
Worker	0.1767	0.1171	1.6351	4.8500e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		483.4334	483.4334	0.0133		483.7670
Total	**0.2394**	**2.1484**	**2.1634**	**0.0105**	**0.6327**	**7.6700e-003**	**0.6403**	**0.1710**	**7.2000e-003**	**0.1782**		**1,082.9024**	**1,082.9024**	**0.0477**		**1,084.0960**

3.8 Trenching & Underground Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7971	7.5550	7.3373	0.0101		0.4883	0.4883		0.4500	0.4500		963.2020	963.2020	0.3040		970.8007
Total	**0.7971**	**7.5550**	**7.3373**	**0.0101**		**0.4883**	**0.4883**		**0.4500**	**0.4500**		**963.2020**	**963.2020**	**0.3040**		**970.8007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0800e-003	0.1942	0.0508	5.1000e-004	0.0128	4.0000e-004	0.0132	3.6900e-003	3.8000e-004	4.0700e-003		54.9761	54.9761	3.2400e-003		55.0571
Worker	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**0.0490**	**0.2236**	**0.4535**	**1.6500e-003**	**0.1246**	**1.3000e-003**	**0.1259**	**0.0333**	**1.2100e-003**	**0.0346**		**168.8531**	**168.8531**	**6.6000e-003**		**169.0180**

3.8 Trenching & Underground Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7971	7.5550	7.3373	0.0101		0.4883	0.4883		0.4500	0.4500	0.0000	963.2020	963.2020	0.3040		970.8007
Total	**0.7971**	**7.5550**	**7.3373**	**0.0101**		**0.4883**	**0.4883**		**0.4500**	**0.4500**	**0.0000**	**963.2020**	**963.2020**	**0.3040**		**970.8007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0800e-003	0.1942	0.0508	5.1000e-004	0.0128	4.0000e-004	0.0132	3.6900e-003	3.8000e-004	4.0700e-003		54.9761	54.9761	3.2400e-003		55.0571
Worker	0.0429	0.0295	0.4028	1.1400e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		113.8770	113.8770	3.3600e-003		113.9609
Total	**0.0490**	**0.2236**	**0.4535**	**1.6500e-003**	**0.1246**	**1.3000e-003**	**0.1259**	**0.0333**	**1.2100e-003**	**0.0346**		**168.8531**	**168.8531**	**6.6000e-003**		**169.0180**

3.9 Office Building & Staff Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4071	19.1632	19.8438	0.0306		1.0679	1.0679		1.0137	1.0137		2,833.4125	2,833.4125	0.6264		2,849.0729
Total	**2.4071**	**19.1632**	**19.8438**	**0.0306**		**1.0679**	**1.0679**		**1.0137**	**1.0137**		**2,833.4125**	**2,833.4125**	**0.6264**		**2,849.0729**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0365	1.1651	0.3046	3.0900e-003	0.0768	2.3800e-003	0.0792	0.0221	2.2800e-003	0.0244		329.8568	329.8568	0.0194		330.3426
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.1136**	**1.2181**	**1.0296**	**5.1500e-003**	**0.2780**	**4.0100e-003**	**0.2820**	**0.0755**	**3.7800e-003**	**0.0793**		**534.8353**	**534.8353**	**0.0255**		**535.4722**

3.9 Office Building & Staff Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4071	19.1632	19.8438	0.0306		1.0679	1.0679		1.0137	1.0137	0.0000	2,833.4125	2,833.4125	0.6264		2,849.0729
Total	**2.4071**	**19.1632**	**19.8438**	**0.0306**		**1.0679**	**1.0679**		**1.0137**	**1.0137**	**0.0000**	**2,833.4125**	**2,833.4125**	**0.6264**		**2,849.0729**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0365	1.1651	0.3046	3.0900e-003	0.0768	2.3800e-003	0.0792	0.0221	2.2800e-003	0.0244		329.8568	329.8568	0.0194		330.3426
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.1136**	**1.2181**	**1.0296**	**5.1500e-003**	**0.2780**	**4.0100e-003**	**0.2820**	**0.0755**	**3.7800e-003**	**0.0793**		**534.8353**	**534.8353**	**0.0255**		**535.4722**

3.9 Office Building & Staff Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1688	17.4455	19.6136	0.0307		0.9004	0.9004		0.8554	0.8554		2,834.3902	2,834.3902	0.6180		2,849.8394
Total	**2.1688**	**17.4455**	**19.6136**	**0.0307**		**0.9004**	**0.9004**		**0.8554**	**0.8554**		**2,834.3902**	**2,834.3902**	**0.6180**		**2,849.8394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0342	1.1080	0.2882	3.0600e-003	0.0768	2.0800e-003	0.0789	0.0221	1.9900e-003	0.0241		326.9831	326.9831	0.0188		327.4522
Worker	0.0723	0.0479	0.6689	1.9800e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		197.7682	197.7682	5.4600e-003		197.9047
Total	**0.1065**	**1.1559**	**0.9571**	**5.0400e-003**	**0.2780**	**3.6500e-003**	**0.2817**	**0.0755**	**3.4400e-003**	**0.0789**		**524.7513**	**524.7513**	**0.0242**		**525.3569**

3.9 Office Building & Staff Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1688	17.4455	19.6136	0.0307		0.9004	0.9004		0.8554	0.8554	0.0000	2,834.3902	2,834.3902	0.6180		2,849.8394
Total	**2.1688**	**17.4455**	**19.6136**	**0.0307**		**0.9004**	**0.9004**		**0.8554**	**0.8554**	**0.0000**	**2,834.3902**	**2,834.3902**	**0.6180**		**2,849.8394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0342	1.1080	0.2882	3.0600e-003	0.0768	2.0800e-003	0.0789	0.0221	1.9900e-003	0.0241		326.9831	326.9831	0.0188		327.4522
Worker	0.0723	0.0479	0.6689	1.9800e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		197.7682	197.7682	5.4600e-003		197.9047
Total	**0.1065**	**1.1559**	**0.9571**	**5.0400e-003**	**0.2780**	**3.6500e-003**	**0.2817**	**0.0755**	**3.4400e-003**	**0.0789**		**524.7513**	**524.7513**	**0.0242**		**525.3569**

3.10 Water Distribution Shop and Maintenance Building - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0730	2.3302	0.6092	6.1700e-003	0.1537	4.7600e-003	0.1584	0.0442	4.5600e-003	0.0488		659.7135	659.7135	0.0389		660.6852
Worker	0.2058	0.1414	1.9333	5.4900e-003	0.5365	4.3400e-003	0.5409	0.1423	3.9900e-003	0.1463		546.6095	546.6095	0.0161		547.0122
Total	**0.2787**	**2.4716**	**2.5425**	**0.0117**	**0.6902**	**9.1000e-003**	**0.6993**	**0.1865**	**8.5500e-003**	**0.1951**		**1,206.3230**	**1,206.3230**	**0.0550**		**1,207.6973**

3.10 Water Distribution Shop and Maintenance Building - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0730	2.3302	0.6092	6.1700e-003	0.1537	4.7600e-003	0.1584	0.0442	4.5600e-003	0.0488		659.7135	659.7135	0.0389		660.6852
Worker	0.2058	0.1414	1.9333	5.4900e-003	0.5365	4.3400e-003	0.5409	0.1423	3.9900e-003	0.1463		546.6095	546.6095	0.0161		547.0122
Total	**0.2787**	**2.4716**	**2.5425**	**0.0117**	**0.6902**	**9.1000e-003**	**0.6993**	**0.1865**	**8.5500e-003**	**0.1951**		**1,206.3230**	**1,206.3230**	**0.0550**		**1,207.6973**

3.10 Water Distribution Shop and Maintenance Building - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0685	2.2159	0.5764	6.1100e-003	0.1537	4.1700e-003	0.1578	0.0442	3.9800e-003	0.0482		653.9661	653.9661	0.0375		654.9044
Worker	0.1927	0.1278	1.7837	5.2900e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8700e-003	0.1462		527.3819	527.3819	0.0146		527.7458
Total	**0.2612**	**2.3437**	**2.3601**	**0.0114**	**0.6902**	**8.3700e-003**	**0.6986**	**0.1865**	**7.8500e-003**	**0.1944**		**1,181.3480**	**1,181.3480**	**0.0521**		**1,182.6502**

3.10 Water Distribution Shop and Maintenance Building - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0685	2.2159	0.5764	6.1100e-003	0.1537	4.1700e-003	0.1578	0.0442	3.9800e-003	0.0482		653.9661	653.9661	0.0375		654.9044
Worker	0.1927	0.1278	1.7837	5.2900e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8700e-003	0.1462		527.3819	527.3819	0.0146		527.7458
Total	**0.2612**	**2.3437**	**2.3601**	**0.0114**	**0.6902**	**8.3700e-003**	**0.6986**	**0.1865**	**7.8500e-003**	**0.1944**		**1,181.3480**	**1,181.3480**	**0.0521**		**1,182.6502**

3.11 Department Fleet Vehicles Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.2915	0.2004	2.7389	7.7700e-003	0.7601	6.1400e-003	0.7662	0.2016	5.6600e-003	0.2072		774.3635	774.3635	0.0228		774.9339
Total	**0.3037**	**0.5887**	**2.8404**	**8.8000e-003**	**0.7857**	**6.9300e-003**	**0.7926**	**0.2090**	**6.4200e-003**	**0.2154**		**884.3158**	**884.3158**	**0.0293**		**885.0481**

3.11 Department Fleet Vehicles Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0122	0.3884	0.1015	1.0300e-003	0.0256	7.9000e-004	0.0264	7.3700e-003	7.6000e-004	8.1300e-003		109.9523	109.9523	6.4800e-003		110.1142
Worker	0.2915	0.2004	2.7389	7.7700e-003	0.7601	6.1400e-003	0.7662	0.2016	5.6600e-003	0.2072		774.3635	774.3635	0.0228		774.9339
Total	**0.3037**	**0.5887**	**2.8404**	**8.8000e-003**	**0.7857**	**6.9300e-003**	**0.7926**	**0.2090**	**6.4200e-003**	**0.2154**		**884.3158**	**884.3158**	**0.0293**		**885.0481**

3.11 Department Fleet Vehicles Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0256	6.9000e-004	0.0263	7.3700e-003	6.6000e-004	8.0400e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.2730	0.1810	2.5269	7.5000e-003	0.7601	5.9500e-003	0.7660	0.2016	5.4800e-003	0.2071		747.1244	747.1244	0.0206		747.6399
Total	**0.2845**	**0.5503**	**2.6230**	**8.5200e-003**	**0.7857**	**6.6400e-003**	**0.7923**	**0.2090**	**6.1400e-003**	**0.2151**		**856.1187**	**856.1187**	**0.0269**		**856.7906**

3.11 Department Fleet Vehicles Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0256	6.9000e-004	0.0263	7.3700e-003	6.6000e-004	8.0400e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.2730	0.1810	2.5269	7.5000e-003	0.7601	5.9500e-003	0.7660	0.2016	5.4800e-003	0.2071		747.1244	747.1244	0.0206		747.6399
Total	**0.2845**	**0.5503**	**2.6230**	**8.5200e-003**	**0.7857**	**6.6400e-003**	**0.7923**	**0.2090**	**6.1400e-003**	**0.2151**		**856.1187**	**856.1187**	**0.0269**		**856.7906**

3.12 Supply Chain Services Warehouse - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0486	1.5534	0.4061	4.1100e-003	0.1024	3.1800e-003	0.1056	0.0295	3.0400e-003	0.0325		439.8090	439.8090	0.0259		440.4568
Worker	0.1200	0.0825	1.1278	3.2000e-003	0.3130	2.5300e-003	0.3155	0.0830	2.3300e-003	0.0853		318.8556	318.8556	9.4000e-003		319.0904
Total	**0.1687**	**1.6359**	**1.5339**	**7.3100e-003**	**0.4154**	**5.7100e-003**	**0.4211**	**0.1125**	**5.3700e-003**	**0.1179**		**758.6646**	**758.6646**	**0.0353**		**759.5472**

3.12 Supply Chain Services Warehouse - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0486	1.5534	0.4061	4.1100e-003	0.1024	3.1800e-003	0.1056	0.0295	3.0400e-003	0.0325		439.8090	439.8090	0.0259		440.4568
Worker	0.1200	0.0825	1.1278	3.2000e-003	0.3130	2.5300e-003	0.3155	0.0830	2.3300e-003	0.0853		318.8556	318.8556	9.4000e-003		319.0904
Total	**0.1687**	**1.6359**	**1.5339**	**7.3100e-003**	**0.4154**	**5.7100e-003**	**0.4211**	**0.1125**	**5.3700e-003**	**0.1179**		**758.6646**	**758.6646**	**0.0353**		**759.5472**

3.12 Supply Chain Services Warehouse - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0456	1.4773	0.3842	4.0800e-003	0.1024	2.7800e-003	0.1052	0.0295	2.6600e-003	0.0322		435.9774	435.9774	0.0250		436.6029
Worker	0.1124	0.0745	1.0405	3.0900e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		307.6395	307.6395	8.4900e-003		307.8517
Total	**0.1581**	**1.5518**	**1.4247**	**7.1700e-003**	**0.4154**	**5.2300e-003**	**0.4206**	**0.1125**	**4.9200e-003**	**0.1174**		**743.6169**	**743.6169**	**0.0335**		**744.4546**

3.12 Supply Chain Services Warehouse - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0456	1.4773	0.3842	4.0800e-003	0.1024	2.7800e-003	0.1052	0.0295	2.6600e-003	0.0322		435.9774	435.9774	0.0250		436.6029
Worker	0.1124	0.0745	1.0405	3.0900e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		307.6395	307.6395	8.4900e-003		307.8517
Total	**0.1581**	**1.5518**	**1.4247**	**7.1700e-003**	**0.4154**	**5.2300e-003**	**0.4206**	**0.1125**	**4.9200e-003**	**0.1174**		**743.6169**	**743.6169**	**0.0335**		**744.4546**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1649	20.1261	21.2928	0.0335		1.0940	1.0940		1.0258	1.0258		3,192.7073	3,192.7073	0.8228		3,213.2770
Total	**2.1649**	**20.1261**	**21.2928**	**0.0335**		**1.0940**	**1.0940**		**1.0258**	**1.0258**		**3,192.7073**	**3,192.7073**	**0.8228**		**3,213.2770**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0304	0.9709	0.2538	2.5700e-003	0.0640	1.9900e-003	0.0660	0.0184	1.9000e-003	0.0203		274.8806	274.8806	0.0162		275.2855
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.0990**	**1.0180**	**0.8983**	**4.4000e-003**	**0.2429**	**3.4400e-003**	**0.2463**	**0.0659**	**3.2300e-003**	**0.0691**		**457.0838**	**457.0838**	**0.0216**		**457.6229**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1649	20.1261	21.2928	0.0335		1.0940	1.0940		1.0258	1.0258	0.0000	3,192.7073	3,192.7073	0.8228		3,213.2770
Total	**2.1649**	**20.1261**	**21.2928**	**0.0335**		**1.0940**	**1.0940**		**1.0258**	**1.0258**	**0.0000**	**3,192.7073**	**3,192.7073**	**0.8228**		**3,213.2770**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0304	0.9709	0.2538	2.5700e-003	0.0640	1.9900e-003	0.0660	0.0184	1.9000e-003	0.0203		274.8806	274.8806	0.0162		275.2855
Worker	0.0686	0.0471	0.6444	1.8300e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		182.2032	182.2032	5.3700e-003		182.3374
Total	**0.0990**	**1.0180**	**0.8983**	**4.4000e-003**	**0.2429**	**3.4400e-003**	**0.2463**	**0.0659**	**3.2300e-003**	**0.0691**		**457.0838**	**457.0838**	**0.0216**		**457.6229**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9366	17.9145	21.0991	0.0335		0.9194	0.9194		0.8627	0.8627		3,193.9433	3,193.9433	0.8188		3,214.4134
Total	**1.9366**	**17.9145**	**21.0991**	**0.0335**		**0.9194**	**0.9194**		**0.8627**	**0.8627**		**3,193.9433**	**3,193.9433**	**0.8188**		**3,214.4134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.9233	0.2402	2.5500e-003	0.0640	1.7400e-003	0.0658	0.0184	1.6600e-003	0.0201		272.4859	272.4859	0.0156		272.8768
Worker	0.0642	0.0426	0.5946	1.7600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		175.7940	175.7940	4.8500e-003		175.9153
Total	**0.0928**	**0.9659**	**0.8347**	**4.3100e-003**	**0.2429**	**3.1400e-003**	**0.2460**	**0.0659**	**2.9500e-003**	**0.0688**		**448.2799**	**448.2799**	**0.0205**		**448.7921**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9366	17.9145	21.0991	0.0335		0.9194	0.9194		0.8627	0.8627	0.0000	3,193.9432	3,193.9432	0.8188		3,214.4134
Total	**1.9366**	**17.9145**	**21.0991**	**0.0335**		**0.9194**	**0.9194**		**0.8627**	**0.8627**	**0.0000**	**3,193.9432**	**3,193.9432**	**0.8188**		**3,214.4134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0285	0.9233	0.2402	2.5500e-003	0.0640	1.7400e-003	0.0658	0.0184	1.6600e-003	0.0201		272.4859	272.4859	0.0156		272.8768
Worker	0.0642	0.0426	0.5946	1.7600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		175.7940	175.7940	4.8500e-003		175.9153
Total	**0.0928**	**0.9659**	**0.8347**	**4.3100e-003**	**0.2429**	**3.1400e-003**	**0.2460**	**0.0659**	**2.9500e-003**	**0.0688**		**448.2799**	**448.2799**	**0.0205**		**448.7921**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3385	10.4598	34.7547	0.1481	13.6808	0.1065	13.7873	3.6602	0.0989	3.7591		15,110.1688	15,110.1688	0.6524		15,126.4793
Unmitigated	2.3385	10.4598	34.7547	0.1481	13.6808	0.1065	13.7873	3.6602	0.0989	3.7591		15,110.1688	15,110.1688	0.6524		15,126.4793

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Light Industry	1,359.52	257.52	132.24	4,546,804	4,546,804
General Light Industry	93.76	17.76	9.12	313,573	313,573
General Office Building	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	1,453.28	275.28	141.36	4,860,376	4,860,376

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking Structure	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Light Industry	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Office Building	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Other Asphalt Surfaces	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Research & Development	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Unrefrigerated Warehouse-No Rail	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Mid Valley Water Facility Unmitigated - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
NaturalGas Unmitigated	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	446.301	4.8100e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5060	52.5060	1.0100e-003	9.6000e-004	52.8181
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	396.712	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003		46.6720	46.6720	8.9000e-004	8.6000e-004	46.9494
General Light Industry	5752.33	0.0620	0.5640	0.4737	3.3800e-003		0.0429	0.0429		0.0429	0.0429		676.7446	676.7446	0.0130	0.0124	680.7661
General Office Building	1967.92	0.0212	0.1929	0.1621	1.1600e-003		0.0147	0.0147		0.0147	0.0147		231.5197	231.5197	4.4400e-003	4.2400e-003	232.8956
General Office Building	85.5616	9.2000e-004	8.3900e-003	7.0500e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.0661	10.0661	1.9000e-004	1.8000e-004	10.1259
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	942.192	0.0102	0.0924	0.0776	5.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003		110.8461	110.8461	2.1200e-003	2.0300e-003	111.5048
Unrefrigerated Warehouse-No Rail	171.616	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003		20.1902	20.1902	3.9000e-004	3.7000e-004	20.3102
Total		**0.1053**	**0.9571**	**0.8040**	**5.7300e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,148.5447**	**1,148.5447**	**0.0220**	**0.0211**	**1,155.3700**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.446301	4.8100e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5060	52.5060	1.0100e-003	9.6000e-004	52.8181
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0.396712	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003		46.6720	46.6720	8.9000e-004	8.6000e-004	46.9494
General Light Industry	5.75233	0.0620	0.5640	0.4737	3.3800e-003		0.0429	0.0429		0.0429	0.0429		676.7446	676.7446	0.0130	0.0124	680.7661
General Office Building	0.0855616	9.2000e-004	8.3900e-003	7.0500e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.0661	10.0661	1.9000e-004	1.8000e-004	10.1259
General Office Building	1.96792	0.0212	0.1929	0.1621	1.1600e-003		0.0147	0.0147		0.0147	0.0147		231.5197	231.5197	4.4400e-003	4.2400e-003	232.8956
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0.942192	0.0102	0.0924	0.0776	5.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003		110.8461	110.8461	2.1200e-003	2.0300e-003	111.5048
Unrefrigerated Warehouse-No Rail	0.171616	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003		20.1902	20.1902	3.9000e-004	3.7000e-004	20.3102
Total		**0.1053**	**0.9571**	**0.8040**	**5.7300e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,148.5447**	**1,148.5447**	**0.0220**	**0.0211**	**1,155.3700**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Unmitigated	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6100e-003	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Total	**6.7952**	**6.5000e-004**	**0.0718**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.0000e-004**		**0.1643**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6100e-003	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Total	**6.7952**	**6.5000e-004**	**0.0718**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.0000e-004**		**0.1643**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	4.00	260	89	0.20	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.4366	4.1132	5.6971	7.6800e-003		0.2202	0.2202		0.2026	0.2026		743.8549	743.8549	0.2406		749.8694
Total	**0.4366**	**4.1132**	**5.6971**	**7.6800e-003**		**0.2202**	**0.2202**		**0.2026**	**0.2026**		**743.8549**	**743.8549**	**0.2406**		**749.8694**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mid Valley Water Facility Unmitigated HRA

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	69.00	1000sqft	1.58	69,000.00	0
General Office Building	3.00	1000sqft	0.07	3,000.00	0
Research & Development	19.00	1000sqft	0.44	19,000.00	0
General Light Industry	116.00	1000sqft	2.66	116,000.00	0
General Light Industry	8.00	1000sqft	0.18	8,000.00	0
Unrefrigerated Warehouse-No Rail	72.00	1000sqft	1.65	72,000.00	0
Enclosed Parking Structure	216.00	1000sqft	4.96	216,000.00	0
Other Asphalt Surfaces	181.00	1000sqft	4.16	181,000.00	0
Other Asphalt Surfaces	12.00	1000sqft	0.28	12,000.00	0
Automobile Care Center	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	758.16	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Winter

Project Characteristics - Los Angeles Department of Water and Power adjusted for 43.2% RPS in 2026. HRA

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Grading - Data provided by applicant.

Vehicle Trips - Data provided by Traffic Report. HRA onsite vehicle travel assumed 0.19 miles (1,000 feet).

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Operational Off-Road Equipment - Data provided by applicant.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	42.00

tblConstructionPhase	NumDays	300.00	238.00
tblConstructionPhase	NumDays	300.00	108.00
tblConstructionPhase	NumDays	300.00	22.00
tblConstructionPhase	NumDays	300.00	195.00
tblConstructionPhase	NumDays	300.00	238.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	30.00	130.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	21.00
tblGrading	AcresOfGrading	325.00	6.57
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
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tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	1227.89	758.16
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004

tblTripsAndVMT	HaulingTripNumber	0.00	4,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	11,118.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	116.00	10.00
tblTripsAndVMT	VendorTripNumber	116.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	22.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
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tblTripsAndVMT	VendorTripNumber	116.00	0.00
tblTripsAndVMT	VendorTripNumber	116.00	0.00
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tblTripsAndVMT	VendorTripNumber	116.00	24.00
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tblTripsAndVMT	VendorTripNumber	116.00	16.00
tblTripsAndVMT	WorkerTripNumber	286.00	16.00
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tblTripsAndVMT	WorkerTripNumber	20.00	16.00
tblTripsAndVMT	WorkerTripNumber	286.00	6.00
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tblTripsAndVMT	WorkerTripNumber	286.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	286.00	18.00
tblTripsAndVMT	WorkerTripNumber	286.00	48.00
tblTripsAndVMT	WorkerTripNumber	286.00	68.00

tblTripsAndVMT	WorkerTripNumber	286.00	28.00
tblVehicleTrips	CC_TL	8.40	0.19
tblVehicleTrips	CNW_TL	6.90	0.19
tblVehicleTrips	CW_TL	16.60	0.19
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	ST_TR	1.32	2.22
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	0.68	1.14
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	6.97	11.72
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.2690	75.0704	37.4645	0.1286	18.2803	2.2724	20.4804	9.9877	2.0935	12.0119	0.0000	13,230.8877	13,230.8877	2.4034	0.0000	13,290.9739
2021	11.5339	91.9555	91.5699	0.1719	8.0058	4.5103	10.0718	3.8367	4.2942	5.7401	0.0000	16,278.2983	16,278.2983	2.8772	0.0000	16,350.2280
2022	72.1082	83.6727	89.9371	0.1711	2.4122	3.8405	6.2526	0.6493	3.6589	4.3082	0.0000	16,198.7764	16,198.7764	2.8293	0.0000	16,269.5097
2023	3.1559	34.6030	27.8783	0.0773	2.8680	1.2885	4.1565	0.7266	1.2005	1.9271	0.0000	7,764.2647	7,764.2647	1.4886	0.0000	7,801.4787
Maximum	**72.1082**	**91.9555**	**91.5699**	**0.1719**	**18.2803**	**4.5103**	**20.4804**	**9.9877**	**4.2942**	**12.0119**	**0.0000**	**16,278.2983**	**16,278.2983**	**2.8772**	**0.0000**	**16,350.2280**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.2690	75.0704	37.4645	0.1286	9.3168	2.2724	11.5891	3.9300	2.0935	5.9542	0.0000	13,230.8877	13,230.8877	2.4034	0.0000	13,290.9739
2021	11.5339	91.9555	91.5699	0.1719	4.2996	4.5103	6.9225	1.8139	4.2942	4.9435	0.0000	16,278.2983	16,278.2983	2.8772	0.0000	16,350.2280
2022	72.1082	83.6727	89.9371	0.1711	2.4122	3.8405	6.2526	0.6493	3.6589	4.3082	0.0000	16,198.7763	16,198.7763	2.8293	0.0000	16,269.5097
2023	3.1559	34.6030	27.8783	0.0773	2.8680	1.2885	4.1565	0.7266	1.2005	1.9271	0.0000	7,764.2647	7,764.2647	1.4886	0.0000	7,801.4787
Maximum	**72.1082**	**91.9555**	**91.5699**	**0.1719**	**9.3168**	**4.5103**	**11.5891**	**3.9300**	**4.2942**	**5.9542**	**0.0000**	**16,278.2983**	**16,278.2983**	**2.8772**	**0.0000**	**16,350.2280**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**40.14**	**0.00**	**29.39**	**53.16**	**0.00**	**28.57**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Energy	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
Mobile	1.0834	4.5740	4.7912	7.8100e-003	0.2026	9.3500e-003	0.2120	0.0542	8.6500e-003	0.0629		813.1263	813.1263	0.0870		815.3018
Offroad	0.4345	4.0927	5.6688	7.6400e-003		0.2191	0.2191		0.2016	0.2016		740.1542	740.1542	0.2394		746.1387
Total	**8.4183**	**9.6245**	**11.3357**	**0.0212**	**0.2026**	**0.3015**	**0.5041**	**0.0542**	**0.2832**	**0.3374**		**2,701.9794**	**2,701.9794**	**0.3488**	**0.0211**	**2,716.9748**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Energy	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
Mobile	1.0834	4.5740	4.7912	7.8100e-003	0.2026	9.3500e-003	0.2120	0.0542	8.6500e-003	0.0629		813.1263	813.1263	0.0870		815.3018
Offroad	0.4345	4.0927	5.6688	7.6400e-003		0.2191	0.2191		0.2016	0.2016		740.1542	740.1542	0.2394		746.1387
Total	**8.4183**	**9.6245**	**11.3357**	**0.0212**	**0.2026**	**0.3015**	**0.5041**	**0.0542**	**0.2832**	**0.3374**		**2,701.9794**	**2,701.9794**	**0.3488**	**0.0211**	**2,716.9748**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2020	11/30/2020	5	21	
2	Grading	Grading	12/1/2020	5/31/2021	5	130	
3	Trenching & Underground Utilities	Trenching	7/1/2021	7/30/2021	5	22	
4	Perimeter Walls Construction	Building Construction	7/1/2021	7/30/2021	5	22	
5	Paving & Site Infrastructure	Paving	8/1/2021	8/21/2021	5	15	
6	Office Building & Staff Parking	Building Construction	9/1/2021	5/31/2022	5	195	
7	Water Distribution Shop and Maintenance Building	Building Construction	9/1/2021	7/30/2022	5	238	
8	Department Fleet Vehicles Parking	Building Construction	9/1/2021	8/31/2022	5	261	
9	Supply Chain Services Warehouse	Building Construction	9/1/2021	8/31/2022	5	261	
10	Fleet Maintenance Building and CNG Dispensing Area	Building Construction	9/1/2021	7/30/2022	5	238	
11	Street Improvement of Hazeltine Avenue	Building Construction	9/1/2022	1/30/2023	5	108	
12	Architectural Coating	Architectural Coating	9/1/2022	10/30/2022	5	42	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.57

Acres of Paving: 9.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 444,000; Non-Residential Outdoor: 148,000; Striped Parking Area: 24,540 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38

Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Perimeter Walls Construction	Bore/Drill Rigs	1	8.00	221	0.50
Perimeter Walls Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Perimeter Walls Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Perimeter Walls Construction	Cranes	1	7.00	231	0.29
Perimeter Walls Construction	Forklifts	3	8.00	89	0.20
Perimeter Walls Construction	Generator Sets	1	8.00	84	0.74
Perimeter Walls Construction	Paving Equipment	1	8.00	132	0.36
Perimeter Walls Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Perimeter Walls Construction	Welders	1	8.00	46	0.45
Paving & Site Infrastructure	Pavers	2	8.00	130	0.42
Paving & Site Infrastructure	Paving Equipment	2	8.00	132	0.36
Paving & Site Infrastructure	Rollers	2	8.00	80	0.38
Street Improvement of Hazeltine Avenue	Cranes	1	7.00	231	0.29
Street Improvement of Hazeltine Avenue	Excavators	1	8.00	158	0.38
Street Improvement of Hazeltine Avenue	Forklifts	3	8.00	89	0.20
Street Improvement of Hazeltine Avenue	Generator Sets	1	8.00	84	0.74
Street Improvement of Hazeltine Avenue	Graders	1	8.00	187	0.41
Street Improvement of Hazeltine Avenue	Rubber Tired Dozers	1	8.00	247	0.40
Street Improvement of Hazeltine Avenue	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Street Improvement of Hazeltine Avenue	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trenching & Underground Utilities	Plate Compactors	1	8.00	8	0.43
Trenching & Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching & Underground Utilities	Trenchers	1	8.00	78	0.50
Office Building & Staff Parking	Cranes	1	4.00	231	0.29
Office Building & Staff Parking	Forklifts	2	6.00	89	0.20
Office Building & Staff Parking	Forklifts	2	7.00	89	0.20
Office Building & Staff Parking	Generator Sets	1	8.00	84	0.74
Office Building & Staff Parking	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Office Building & Staff Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Office Building & Staff Parking	Welders	3	8.00	46	0.45
Water Distribution Shop and Maintenance Building	Cranes	1	8.00	231	0.29
Water Distribution Shop and Maintenance Building	Forklifts	2	7.00	89	0.20
Water Distribution Shop and Maintenance Building	Generator Sets	1	8.00	84	0.74
Water Distribution Shop and Maintenance Building	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Water Distribution Shop and Maintenance Building	Welders	3	8.00	46	0.45
Department Fleet Vehicles Parking	Cranes	1	8.00	231	0.29
Department Fleet Vehicles Parking	Forklifts	2	7.00	89	0.20
Department Fleet Vehicles Parking	Generator Sets	1	8.00	84	0.74
Department Fleet Vehicles Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Department Fleet Vehicles Parking	Welders	3	8.00	46	0.45
Supply Chain Services Warehouse	Cranes	1	6.00	231	0.29
Supply Chain Services Warehouse	Forklifts	1	6.00	89	0.20
Supply Chain Services Warehouse	Generator Sets	1	8.00	84	0.74
Supply Chain Services Warehouse	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Supply Chain Services Warehouse	Welders	3	8.00	46	0.45
Fleet Maintenance Building and CNG Dispensing Area	Cranes	1	4.00	231	0.29

Fleet Maintenance Building and CNG Dispensing Area	Forklifts	2	6.00	89	0.20
Fleet Maintenance Building and CNG Dispensing Area	Generator Sets	1	8.00	84	0.74
Fleet Maintenance Building and CNG Dispensing Area	Pavers	1	6.00	130	0.42
Fleet Maintenance Building and CNG Dispensing Area	Paving Equipment	1	8.00	132	0.36
Fleet Maintenance Building and CNG Dispensing Area	Rollers	1	7.00	80	0.38
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Welders	1	8.00	46	0.45

Trips and VMT

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	16.00	2.00	11,118.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	6.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Infrastructure	6	16.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Street Improvement of Hazeltine Avenue	12	16.00	2.00	4,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	44.00	22.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching & Underground Utilities	4	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Office Building & Staff Parking	12	18.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Water Distribution Shop and Maintenanc	8	48.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Department Fleet Vehicles Parking	8	68.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Supply Chain Services Warehouse	7	28.00	16.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fleet Maintenance Building and CNG Dis	11	16.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0994**	**0.2779**	**0.7833**	**2.5000e-003**	**0.2140**	**2.7000e-003**	**0.2167**	**0.0571**	**2.5200e-003**	**0.0596**		**253.2255**	**253.2255**	**9.8800e-003**		**253.4726**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0994**	**0.2779**	**0.7833**	**2.5000e-003**	**0.2140**	**2.7000e-003**	**0.2167**	**0.0571**	**2.5200e-003**	**0.0596**		**253.2255**	**253.2255**	**9.8800e-003**		**253.4726**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0757	0.0000	6.0757	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	4.4146	49.8900	30.9702	0.0599		2.1902	2.1902		2.0149	2.0149		5,806.5154	5,806.5154	1.8779		5,853.4640
Total	**4.4146**	**49.8900**	**30.9702**	**0.0599**	**6.0757**	**2.1902**	**8.2658**	**3.3160**	**2.0149**	**5.3310**		**5,806.5154**	**5,806.5154**	**1.8779**		**5,853.4640**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7652	24.9097	5.7912	0.0664	6.7556	0.0797	6.8353	1.7011	0.0762	1.7773		7,193.2953	7,193.2953	0.5163		7,206.2031
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0818	0.0580	0.6416	1.7800e-003	0.1788	1.4900e-003	0.1803	0.0474	1.3800e-003	0.0488		177.1873	177.1873	5.5800e-003		177.3269
Total	**0.8544**	**25.1804**	**6.4943**	**0.0687**	**6.9472**	**0.0822**	**7.0294**	**1.7522**	**0.0786**	**1.8308**		**7,424.3723**	**7,424.3723**	**0.5255**		**7,437.5099**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3695	0.0000	2.3695	1.2933	0.0000	1.2933			0.0000			0.0000
Off-Road	4.4146	49.8900	30.9702	0.0599		2.1902	2.1902		2.0149	2.0149	0.0000	5,806.5154	5,806.5154	1.8779		5,853.4640
Total	**4.4146**	**49.8900**	**30.9702**	**0.0599**	**2.3695**	**2.1902**	**4.5597**	**1.2933**	**2.0149**	**3.3082**	**0.0000**	**5,806.5154**	**5,806.5154**	**1.8779**		**5,853.4640**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7652	24.9097	5.7912	0.0664	6.7556	0.0797	6.8353	1.7011	0.0762	1.7773		7,193.2953	7,193.2953	0.5163		7,206.2031
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0818	0.0580	0.6416	1.7800e-003	0.1788	1.4900e-003	0.1803	0.0474	1.3800e-003	0.0488		177.1873	177.1873	5.5800e-003		177.3269
Total	**0.8544**	**25.1804**	**6.4943**	**0.0687**	**6.9472**	**0.0822**	**7.0294**	**1.7522**	**0.0786**	**1.8308**		**7,424.3723**	**7,424.3723**	**0.5255**		**7,437.5099**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0757	0.0000	6.0757	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	4.1493	46.1422	29.8669	0.0600		1.9927	1.9927		1.8333	1.8333		5,807.7515	5,807.7515	1.8783		5,854.7102
Total	**4.1493**	**46.1422**	**29.8669**	**0.0600**	**6.0757**	**1.9927**	**8.0684**	**3.3160**	**1.8333**	**5.1493**		**5,807.7515**	**5,807.7515**	**1.8783**		**5,854.7102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7303	23.2220	5.7038	0.0656	1.7385	0.0715	1.8099	0.4696	0.0684	0.5380		7,113.6650	7,113.6650	0.5086		7,126.3797
Vendor	6.3800e-003	0.1938	0.0562	5.0000e-004	0.0128	4.1000e-004	0.0132	3.6900e-003	3.9000e-004	4.0800e-003		53.4691	53.4691	3.4500e-003		53.5554
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.8129**	**23.4680**	**6.3492**	**0.0678**	**1.9301**	**0.0733**	**2.0034**	**0.5207**	**0.0701**	**0.5908**		**7,338.6943**	**7,338.6943**	**0.5171**		**7,351.6215**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3695	0.0000	2.3695	1.2933	0.0000	1.2933			0.0000			0.0000
Off-Road	4.1493	46.1422	29.8669	0.0600		1.9927	1.9927		1.8333	1.8333	0.0000	5,807.7515	5,807.7515	1.8783		5,854.7102
Total	**4.1493**	**46.1422**	**29.8669**	**0.0600**	**2.3695**	**1.9927**	**4.3622**	**1.2933**	**1.8333**	**3.1265**	**0.0000**	**5,807.7515**	**5,807.7515**	**1.8783**		**5,854.7102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7303	23.2220	5.7038	0.0656	1.7385	0.0715	1.8099	0.4696	0.0684	0.5380		7,113.6650	7,113.6650	0.5086		7,126.3797
Vendor	6.3800e-003	0.1938	0.0562	5.0000e-004	0.0128	4.1000e-004	0.0132	3.6900e-003	3.9000e-004	4.0800e-003		53.4691	53.4691	3.4500e-003		53.5554
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.8129**	**23.4680**	**6.3492**	**0.0678**	**1.9301**	**0.0733**	**2.0034**	**0.5207**	**0.0701**	**0.5908**		**7,338.6943**	**7,338.6943**	**0.5171**		**7,351.6215**

3.4 Trenching & Underground Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7971	7.5550	7.3373	0.0101		0.4883	0.4883		0.4500	0.4500		963.2020	963.2020	0.3040		970.8007
Total	**0.7971**	**7.5550**	**7.3373**	**0.0101**		**0.4883**	**0.4883**		**0.4500**	**0.4500**		**963.2020**	**963.2020**	**0.3040**		**970.8007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3800e-003	0.1938	0.0562	5.0000e-004	0.0128	4.1000e-004	0.0132	3.6900e-003	3.9000e-004	4.0800e-003		53.4691	53.4691	3.4500e-003		53.5554
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0541**	**0.2264**	**0.4244**	**1.5800e-003**	**0.1246**	**1.3100e-003**	**0.1259**	**0.0333**	**1.2200e-003**	**0.0346**		**160.6942**	**160.6942**	**6.6100e-003**		**160.8594**

3.4 Trenching & Underground Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7971	7.5550	7.3373	0.0101		0.4883	0.4883		0.4500	0.4500	0.0000	963.2020	963.2020	0.3040		970.8007
Total	**0.7971**	**7.5550**	**7.3373**	**0.0101**		**0.4883**	**0.4883**		**0.4500**	**0.4500**	**0.0000**	**963.2020**	**963.2020**	**0.3040**		**970.8007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3800e-003	0.1938	0.0562	5.0000e-004	0.0128	4.1000e-004	0.0132	3.6900e-003	3.9000e-004	4.0800e-003		53.4691	53.4691	3.4500e-003		53.5554
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0541**	**0.2264**	**0.4244**	**1.5800e-003**	**0.1246**	**1.3100e-003**	**0.1259**	**0.0333**	**1.2200e-003**	**0.0346**		**160.6942**	**160.6942**	**6.6100e-003**		**160.8594**

3.5 Perimeter Walls Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7947	25.8012	25.1730	0.0474		1.3335	1.3335		1.2612	1.2612		4,503.0630	4,503.0630	1.0782		4,530.0187
Total	**2.7947**	**25.8012**	**25.1730**	**0.0474**		**1.3335**	**1.3335**		**1.2612**	**1.2612**		**4,503.0630**	**4,503.0630**	**1.0782**		**4,530.0187**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0621	8.2000e-004	0.0629	0.0163	7.8000e-004	0.0171		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.0286	0.0196	0.2210	6.5000e-004	0.1837	5.4000e-004	0.1842	0.0464	5.0000e-004	0.0469		64.3351	64.3351	1.8900e-003		64.3824
Total	**0.0414**	**0.4071**	**0.3333**	**1.6500e-003**	**0.2458**	**1.3600e-003**	**0.2471**	**0.0627**	**1.2800e-003**	**0.0640**		**171.2733**	**171.2733**	**8.7900e-003**		**171.4932**

3.5 Perimeter Walls Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7947	25.8012	25.1730	0.0474		1.3335	1.3335		1.2612	1.2612	0.0000	4,503.0630	4,503.0630	1.0782		4,530.0187
Total	**2.7947**	**25.8012**	**25.1730**	**0.0474**		**1.3335**	**1.3335**		**1.2612**	**1.2612**	**0.0000**	**4,503.0630**	**4,503.0630**	**1.0782**		**4,530.0187**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0621	8.2000e-004	0.0629	0.0163	7.8000e-004	0.0171		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.0286	0.0196	0.2210	6.5000e-004	0.1837	5.4000e-004	0.1842	0.0464	5.0000e-004	0.0469		64.3351	64.3351	1.8900e-003		64.3824
Total	**0.0414**	**0.4071**	**0.3333**	**1.6500e-003**	**0.2458**	**1.3600e-003**	**0.2471**	**0.0627**	**1.2800e-003**	**0.0640**		**171.2733**	**171.2733**	**8.7900e-003**		**171.4932**

3.6 Paving & Site Infrastructure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0311**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.0891**	**0.4397**	**0.7015**	**2.7200e-003**	**0.2045**	**2.2700e-003**	**0.2067**	**0.0548**	**2.1100e-003**	**0.0569**		**278.4984**	**278.4984**	**0.0120**		**278.7972**

3.6 Paving & Site Infrastructure - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0311**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.0891**	**0.4397**	**0.7015**	**2.7200e-003**	**0.2045**	**2.2700e-003**	**0.2067**	**0.0548**	**2.1100e-003**	**0.0569**		**278.4984**	**278.4984**	**0.0120**		**278.7972**

3.7 Office Building & Staff Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4071	19.1632	19.8438	0.0306		1.0679	1.0679		1.0137	1.0137		2,833.4125	2,833.4125	0.6264		2,849.0729
Total	**2.4071**	**19.1632**	**19.8438**	**0.0306**		**1.0679**	**1.0679**		**1.0137**	**1.0137**		**2,833.4125**	**2,833.4125**	**0.6264**		**2,849.0729**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.1627	0.3369	3.0000e-003	0.0768	2.4600e-003	0.0793	0.0221	2.3500e-003	0.0245		320.8146	320.8146	0.0207		321.3324
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.1241**	**1.2214**	**0.9998**	**4.9400e-003**	**0.2780**	**4.0900e-003**	**0.2821**	**0.0755**	**3.8500e-003**	**0.0793**		**513.8198**	**513.8198**	**0.0264**		**514.4796**

3.7 Office Building & Staff Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4071	19.1632	19.8438	0.0306		1.0679	1.0679		1.0137	1.0137	0.0000	2,833.4125	2,833.4125	0.6264		2,849.0729
Total	**2.4071**	**19.1632**	**19.8438**	**0.0306**		**1.0679**	**1.0679**		**1.0137**	**1.0137**	**0.0000**	**2,833.4125**	**2,833.4125**	**0.6264**		**2,849.0729**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.1627	0.3369	3.0000e-003	0.0768	2.4600e-003	0.0793	0.0221	2.3500e-003	0.0245		320.8146	320.8146	0.0207		321.3324
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.1241**	**1.2214**	**0.9998**	**4.9400e-003**	**0.2780**	**4.0900e-003**	**0.2821**	**0.0755**	**3.8500e-003**	**0.0793**		**513.8198**	**513.8198**	**0.0264**		**514.4796**

3.7 Office Building & Staff Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1688	17.4455	19.6136	0.0307		0.9004	0.9004		0.8554	0.8554		2,834.3902	2,834.3902	0.6180		2,849.8394
Total	**2.1688**	**17.4455**	**19.6136**	**0.0307**		**0.9004**	**0.9004**		**0.8554**	**0.8554**		**2,834.3902**	**2,834.3902**	**0.6180**		**2,849.8394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1050	0.3189	2.9700e-003	0.0768	2.1500e-003	0.0790	0.0221	2.0600e-003	0.0242		317.9643	317.9643	0.0200		318.4639
Worker	0.0806	0.0530	0.6105	1.8700e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		186.2225	186.2225	5.1300e-003		186.3507
Total	**0.1166**	**1.1580**	**0.9294**	**4.8400e-003**	**0.2780**	**3.7200e-003**	**0.2818**	**0.0755**	**3.5100e-003**	**0.0790**		**504.1868**	**504.1868**	**0.0251**		**504.8146**

3.7 Office Building & Staff Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1688	17.4455	19.6136	0.0307		0.9004	0.9004		0.8554	0.8554	0.0000	2,834.3902	2,834.3902	0.6180		2,849.8394
Total	**2.1688**	**17.4455**	**19.6136**	**0.0307**		**0.9004**	**0.9004**		**0.8554**	**0.8554**	**0.0000**	**2,834.3902**	**2,834.3902**	**0.6180**		**2,849.8394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1050	0.3189	2.9700e-003	0.0768	2.1500e-003	0.0790	0.0221	2.0600e-003	0.0242		317.9643	317.9643	0.0200		318.4639
Worker	0.0806	0.0530	0.6105	1.8700e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		186.2225	186.2225	5.1300e-003		186.3507
Total	**0.1166**	**1.1580**	**0.9294**	**4.8400e-003**	**0.2780**	**3.7200e-003**	**0.2818**	**0.0755**	**3.5100e-003**	**0.0790**		**504.1868**	**504.1868**	**0.0251**		**504.8146**

3.8 Water Distribution Shop and Maintenance Building - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0766	2.3253	0.6739	6.0100e-003	0.1537	4.9200e-003	0.1586	0.0442	4.7000e-003	0.0489		641.6293	641.6293	0.0414		642.6648
Worker	0.2289	0.1566	1.7676	5.1700e-003	0.5365	4.3400e-003	0.5409	0.1423	3.9900e-003	0.1463		514.6805	514.6805	0.0152		515.0592
Total	**0.3055**	**2.4819**	**2.4415**	**0.0112**	**0.6902**	**9.2600e-003**	**0.6994**	**0.1865**	**8.6900e-003**	**0.1952**		**1,156.3098**	**1,156.3098**	**0.0566**		**1,157.7240**

3.8 Water Distribution Shop and Maintenance Building - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0766	2.3253	0.6739	6.0100e-003	0.1537	4.9200e-003	0.1586	0.0442	4.7000e-003	0.0489		641.6293	641.6293	0.0414		642.6648
Worker	0.2289	0.1566	1.7676	5.1700e-003	0.5365	4.3400e-003	0.5409	0.1423	3.9900e-003	0.1463		514.6805	514.6805	0.0152		515.0592
Total	**0.3055**	**2.4819**	**2.4415**	**0.0112**	**0.6902**	**9.2600e-003**	**0.6994**	**0.1865**	**8.6900e-003**	**0.1952**		**1,156.3098**	**1,156.3098**	**0.0566**		**1,157.7240**

3.8 Water Distribution Shop and Maintenance Building - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0719	2.2099	0.6379	5.9500e-003	0.1537	4.3000e-003	0.1580	0.0442	4.1100e-003	0.0484		635.9287	635.9287	0.0400		636.9278
Worker	0.2150	0.1414	1.6281	4.9800e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8700e-003	0.1462		496.5933	496.5933	0.0137		496.9352
Total	**0.2869**	**2.3513**	**2.2659**	**0.0109**	**0.6902**	**8.5000e-003**	**0.6987**	**0.1865**	**7.9800e-003**	**0.1945**		**1,132.5220**	**1,132.5220**	**0.0536**		**1,133.8630**

3.8 Water Distribution Shop and Maintenance Building - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0719	2.2099	0.6379	5.9500e-003	0.1537	4.3000e-003	0.1580	0.0442	4.1100e-003	0.0484		635.9287	635.9287	0.0400		636.9278
Worker	0.2150	0.1414	1.6281	4.9800e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8700e-003	0.1462		496.5933	496.5933	0.0137		496.9352
Total	**0.2869**	**2.3513**	**2.2659**	**0.0109**	**0.6902**	**8.5000e-003**	**0.6987**	**0.1865**	**7.9800e-003**	**0.1945**		**1,132.5220**	**1,132.5220**	**0.0536**		**1,133.8630**

3.9 Department Fleet Vehicles Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.3242	0.2218	2.5041	7.3200e-003	0.7601	6.1400e-003	0.7662	0.2016	5.6600e-003	0.2072		729.1307	729.1307	0.0215		729.6671
Total	**0.3370**	**0.6093**	**2.6165**	**8.3200e-003**	**0.7857**	**6.9600e-003**	**0.7927**	**0.2090**	**6.4400e-003**	**0.2154**		**836.0690**	**836.0690**	**0.0284**		**836.7779**

3.9 Department Fleet Vehicles Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.3242	0.2218	2.5041	7.3200e-003	0.7601	6.1400e-003	0.7662	0.2016	5.6600e-003	0.2072		729.1307	729.1307	0.0215		729.6671
Total	**0.3370**	**0.6093**	**2.6165**	**8.3200e-003**	**0.7857**	**6.9600e-003**	**0.7927**	**0.2090**	**6.4400e-003**	**0.2154**		**836.0690**	**836.0690**	**0.0284**		**836.7779**

3.9 Department Fleet Vehicles Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0256	7.2000e-004	0.0263	7.3700e-003	6.9000e-004	8.0600e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.3045	0.2003	2.3064	7.0600e-003	0.7601	5.9500e-003	0.7660	0.2016	5.4800e-003	0.2071		703.5072	703.5072	0.0194		703.9915
Total	**0.3165**	**0.5686**	**2.4127**	**8.0500e-003**	**0.7857**	**6.6700e-003**	**0.7924**	**0.2090**	**6.1700e-003**	**0.2151**		**809.4953**	**809.4953**	**0.0260**		**810.1461**

3.9 Department Fleet Vehicles Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0256	7.2000e-004	0.0263	7.3700e-003	6.9000e-004	8.0600e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.3045	0.2003	2.3064	7.0600e-003	0.7601	5.9500e-003	0.7660	0.2016	5.4800e-003	0.2071		703.5072	703.5072	0.0194		703.9915
Total	**0.3165**	**0.5686**	**2.4127**	**8.0500e-003**	**0.7857**	**6.6700e-003**	**0.7924**	**0.2090**	**6.1700e-003**	**0.2151**		**809.4953**	**809.4953**	**0.0260**		**810.1461**

3.10 Supply Chain Services Warehouse - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0511	1.5502	0.4492	4.0000e-003	0.1024	3.2800e-003	0.1057	0.0295	3.1400e-003	0.0326		427.7528	427.7528	0.0276		428.4432
Worker	0.1335	0.0913	1.0311	3.0100e-003	0.3130	2.5300e-003	0.3155	0.0830	2.3300e-003	0.0853		300.2303	300.2303	8.8300e-003		300.4512
Total	**0.1846**	**1.6415**	**1.4804**	**7.0100e-003**	**0.4154**	**5.8100e-003**	**0.4212**	**0.1125**	**5.4700e-003**	**0.1180**		**727.9832**	**727.9832**	**0.0364**		**728.8944**

3.10 Supply Chain Services Warehouse - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0511	1.5502	0.4492	4.0000e-003	0.1024	3.2800e-003	0.1057	0.0295	3.1400e-003	0.0326		427.7528	427.7528	0.0276		428.4432
Worker	0.1335	0.0913	1.0311	3.0100e-003	0.3130	2.5300e-003	0.3155	0.0830	2.3300e-003	0.0853		300.2303	300.2303	8.8300e-003		300.4512
Total	**0.1846**	**1.6415**	**1.4804**	**7.0100e-003**	**0.4154**	**5.8100e-003**	**0.4212**	**0.1125**	**5.4700e-003**	**0.1180**		**727.9832**	**727.9832**	**0.0364**		**728.8944**

3.10 Supply Chain Services Warehouse - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0479	1.4733	0.4252	3.9600e-003	0.1024	2.8700e-003	0.1053	0.0295	2.7400e-003	0.0322		423.9525	423.9525	0.0266		424.6186
Worker	0.1254	0.0825	0.9497	2.9100e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		289.6795	289.6795	7.9800e-003		289.8789
Total	**0.1733**	**1.5557**	**1.3749**	**6.8700e-003**	**0.4154**	**5.3200e-003**	**0.4207**	**0.1125**	**5.0000e-003**	**0.1175**		**713.6319**	**713.6319**	**0.0346**		**714.4974**

3.10 Supply Chain Services Warehouse - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0479	1.4733	0.4252	3.9600e-003	0.1024	2.8700e-003	0.1053	0.0295	2.7400e-003	0.0322		423.9525	423.9525	0.0266		424.6186
Worker	0.1254	0.0825	0.9497	2.9100e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		289.6795	289.6795	7.9800e-003		289.8789
Total	**0.1733**	**1.5557**	**1.3749**	**6.8700e-003**	**0.4154**	**5.3200e-003**	**0.4207**	**0.1125**	**5.0000e-003**	**0.1175**		**713.6319**	**713.6319**	**0.0346**		**714.4974**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1649	20.1261	21.2928	0.0335		1.0940	1.0940		1.0258	1.0258		3,192.7073	3,192.7073	0.8228		3,213.2770
Total	**2.1649**	**20.1261**	**21.2928**	**0.0335**		**1.0940**	**1.0940**		**1.0258**	**1.0258**		**3,192.7073**	**3,192.7073**	**0.8228**		**3,213.2770**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0319	0.9689	0.2808	2.5000e-003	0.0640	2.0500e-003	0.0661	0.0184	1.9600e-003	0.0204		267.3455	267.3455	0.0173		267.7770
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.1082**	**1.0211**	**0.8700**	**4.2200e-003**	**0.2429**	**3.5000e-003**	**0.2464**	**0.0659**	**3.2900e-003**	**0.0692**		**438.9057**	**438.9057**	**0.0223**		**439.4634**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1649	20.1261	21.2928	0.0335		1.0940	1.0940		1.0258	1.0258	0.0000	3,192.7073	3,192.7073	0.8228		3,213.2770
Total	**2.1649**	**20.1261**	**21.2928**	**0.0335**		**1.0940**	**1.0940**		**1.0258**	**1.0258**	**0.0000**	**3,192.7073**	**3,192.7073**	**0.8228**		**3,213.2770**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0319	0.9689	0.2808	2.5000e-003	0.0640	2.0500e-003	0.0661	0.0184	1.9600e-003	0.0204		267.3455	267.3455	0.0173		267.7770
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.1082**	**1.0211**	**0.8700**	**4.2200e-003**	**0.2429**	**3.5000e-003**	**0.2464**	**0.0659**	**3.2900e-003**	**0.0692**		**438.9057**	**438.9057**	**0.0223**		**439.4634**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9366	17.9145	21.0991	0.0335		0.9194	0.9194		0.8627	0.8627		3,193.9433	3,193.9433	0.8188		3,214.4134
Total	**1.9366**	**17.9145**	**21.0991**	**0.0335**		**0.9194**	**0.9194**		**0.8627**	**0.8627**		**3,193.9433**	**3,193.9433**	**0.8188**		**3,214.4134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0300	0.9208	0.2658	2.4800e-003	0.0640	1.7900e-003	0.0658	0.0184	1.7100e-003	0.0202		264.9703	264.9703	0.0167		265.3866
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.1016**	**0.9679**	**0.8085**	**4.1400e-003**	**0.2429**	**3.1900e-003**	**0.2461**	**0.0659**	**3.0000e-003**	**0.0689**		**430.5014**	**430.5014**	**0.0212**		**431.0317**

3.11 Fleet Maintenance Building and CNG Dispensing Area - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9366	17.9145	21.0991	0.0335		0.9194	0.9194		0.8627	0.8627	0.0000	3,193.9432	3,193.9432	0.8188		3,214.4134
Total	**1.9366**	**17.9145**	**21.0991**	**0.0335**		**0.9194**	**0.9194**		**0.8627**	**0.8627**	**0.0000**	**3,193.9432**	**3,193.9432**	**0.8188**		**3,214.4134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0300	0.9208	0.2658	2.4800e-003	0.0640	1.7900e-003	0.0658	0.0184	1.7100e-003	0.0202		264.9703	264.9703	0.0167		265.3866
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.1016**	**0.9679**	**0.8085**	**4.1400e-003**	**0.2429**	**3.1900e-003**	**0.2461**	**0.0659**	**3.0000e-003**	**0.0689**		**430.5014**	**430.5014**	**0.0212**		**431.0317**

3.12 Street Improvement of Hazeltine Avenue - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2225	32.0722	25.7615	0.0484		1.5133	1.5133		1.4091	1.4091		4,635.6278	4,635.6278	1.2851		4,667.7547
Total	**3.2225**	**32.0722**	**25.7615**	**0.0484**		**1.5133**	**1.5133**		**1.4091**	**1.4091**		**4,635.6278**	**4,635.6278**	**1.2851**		**4,667.7547**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3010	9.3345	2.4399	0.0280	0.7658	0.0269	0.7927	0.2065	0.0257	0.2323		3,043.7657	3,043.7657	0.2167		3,049.1834
Vendor	5.9900e-003	0.1842	0.0532	5.0000e-004	0.0128	3.6000e-004	0.0132	3.6900e-003	3.4000e-004	4.0300e-003		52.9941	52.9941	3.3300e-003		53.0773
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.3786**	**9.5658**	**3.0357**	**0.0302**	**0.9575**	**0.0287**	**0.9861**	**0.2577**	**0.0274**	**0.2850**		**3,262.2909**	**3,262.2909**	**0.2246**		**3,267.9058**

3.12 Street Improvement of Hazeltine Avenue - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2225	32.0722	25.7615	0.0484		1.5133	1.5133		1.4091	1.4091	0.0000	4,635.6278	4,635.6278	1.2851		4,667.7547
Total	**3.2225**	**32.0722**	**25.7615**	**0.0484**		**1.5133**	**1.5133**		**1.4091**	**1.4091**	**0.0000**	**4,635.6278**	**4,635.6278**	**1.2851**		**4,667.7547**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3010	9.3345	2.4399	0.0280	0.7658	0.0269	0.7927	0.2065	0.0257	0.2323		3,043.7657	3,043.7657	0.2167		3,049.1834
Vendor	5.9900e-003	0.1842	0.0532	5.0000e-004	0.0128	3.6000e-004	0.0132	3.6900e-003	3.4000e-004	4.0300e-003		52.9941	52.9941	3.3300e-003		53.0773
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.3786**	**9.5658**	**3.0357**	**0.0302**	**0.9575**	**0.0287**	**0.9861**	**0.2577**	**0.0274**	**0.2850**		**3,262.2909**	**3,262.2909**	**0.2246**		**3,267.9058**

3.12 Street Improvement of Hazeltine Avenue - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8863	28.2896	25.1375	0.0484		1.2756	1.2756		1.1883	1.1883		4,636.2626	4,636.2626	1.2809		4,668.2851
Total	**2.8863**	**28.2896**	**25.1375**	**0.0484**		**1.2756**	**1.2756**		**1.1883**	**1.1883**		**4,636.2626**	**4,636.2626**	**1.2809**		**4,668.2851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1976	6.1313	2.1948	0.0268	2.6763	0.0113	2.6876	0.6755	0.0109	0.6863		2,917.1786	2,917.1786	0.2006		2,922.1942
Vendor	4.4500e-003	0.1395	0.0472	4.8000e-004	0.0128	1.7000e-004	0.0130	3.6900e-003	1.6000e-004	3.8500e-003		51.3483	51.3483	2.9300e-003		51.4216
Worker	0.0675	0.0426	0.4988	1.6000e-003	0.1788	1.3600e-003	0.1802	0.0474	1.2500e-003	0.0487		159.4753	159.4753	4.1000e-003		159.5779
Total	**0.2696**	**6.3134**	**2.7408**	**0.0289**	**2.8680**	**0.0129**	**2.8808**	**0.7266**	**0.0123**	**0.7389**		**3,128.0021**	**3,128.0021**	**0.2077**		**3,133.1936**

3.12 Street Improvement of Hazeltine Avenue - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8863	28.2896	25.1375	0.0484		1.2756	1.2756		1.1883	1.1883	0.0000	4,636.2626	4,636.2626	1.2809		4,668.2851
Total	**2.8863**	**28.2896**	**25.1375**	**0.0484**		**1.2756**	**1.2756**		**1.1883**	**1.1883**	**0.0000**	**4,636.2626**	**4,636.2626**	**1.2809**		**4,668.2851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1976	6.1313	2.1948	0.0268	2.6763	0.0113	2.6876	0.6755	0.0109	0.6863		2,917.1786	2,917.1786	0.2006		2,922.1942
Vendor	4.4500e-003	0.1395	0.0472	4.8000e-004	0.0128	1.7000e-004	0.0130	3.6900e-003	1.6000e-004	3.8500e-003		51.3483	51.3483	2.9300e-003		51.4216
Worker	0.0675	0.0426	0.4988	1.6000e-003	0.1788	1.3600e-003	0.1802	0.0474	1.2500e-003	0.0487		159.4753	159.4753	4.1000e-003		159.5779
Total	**0.2696**	**6.3134**	**2.7408**	**0.0289**	**2.8680**	**0.0129**	**2.8808**	**0.7266**	**0.0123**	**0.7389**		**3,128.0021**	**3,128.0021**	**0.2077**		**3,133.1936**

3.13 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	68.0396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**68.2441**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0659	2.0257	0.5847	5.4500e-003	0.1409	3.9400e-003	0.1448	0.0406	3.7700e-003	0.0443		582.9346	582.9346	0.0366		583.8505
Worker	0.1971	0.1296	1.4924	4.5700e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		455.2106	455.2106	0.0125		455.5239
Total	**0.2630**	**2.1553**	**2.0771**	**0.0100**	**0.6327**	**7.7900e-003**	**0.6405**	**0.1710**	**7.3200e-003**	**0.1783**		**1,038.1452**	**1,038.1452**	**0.0492**		**1,039.3744**

3.13 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	68.0396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**68.2441**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0659	2.0257	0.5847	5.4500e-003	0.1409	3.9400e-003	0.1448	0.0406	3.7700e-003	0.0443		582.9346	582.9346	0.0366		583.8505
Worker	0.1971	0.1296	1.4924	4.5700e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		455.2106	455.2106	0.0125		455.5239
Total	**0.2630**	**2.1553**	**2.0771**	**0.0100**	**0.6327**	**7.7900e-003**	**0.6405**	**0.1710**	**7.3200e-003**	**0.1783**		**1,038.1452**	**1,038.1452**	**0.0492**		**1,039.3744**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0834	4.5740	4.7912	7.8100e-003	0.2026	9.3500e-003	0.2120	0.0542	8.6500e-003	0.0629		813.1263	813.1263	0.0870		815.3018
Unmitigated	1.0834	4.5740	4.7912	7.8100e-003	0.2026	9.3500e-003	0.2120	0.0542	8.6500e-003	0.0629		813.1263	813.1263	0.0870		815.3018

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Light Industry	1,359.52	257.52	132.24	67,339	67,339
General Light Industry	93.76	17.76	9.12	4,644	4,644
General Office Building	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	1,453.28	275.28	141.36	71,983	71,983

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	0.19	0.19	0.19	59.00	28.00	13.00	92	5	3
General Light Industry	0.19	0.19	0.19	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking Structure	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Light Industry	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Office Building	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Other Asphalt Surfaces	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Research & Development	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Unrefrigerated Warehouse-No Rail	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Mid Valley Water Facility Unmitigated HRA - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
NaturalGas Unmitigated	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	446.301	4.8100e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5060	52.5060	1.0100e-003	9.6000e-004	52.8181
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	396.712	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003		46.6720	46.6720	8.9000e-004	8.6000e-004	46.9494
General Light Industry	5752.33	0.0620	0.5640	0.4737	3.3800e-003		0.0429	0.0429		0.0429	0.0429		676.7446	676.7446	0.0130	0.0124	680.7661
General Office Building	1967.92	0.0212	0.1929	0.1621	1.1600e-003		0.0147	0.0147		0.0147	0.0147		231.5197	231.5197	4.4400e-003	4.2400e-003	232.8956
General Office Building	85.5616	9.2000e-004	8.3900e-003	7.0500e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.0661	10.0661	1.9000e-004	1.8000e-004	10.1259
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	942.192	0.0102	0.0924	0.0776	5.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003		110.8461	110.8461	2.1200e-003	2.0300e-003	111.5048
Unrefrigerated Warehouse-No Rail	171.616	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003		20.1902	20.1902	3.9000e-004	3.7000e-004	20.3102
Total		**0.1053**	**0.9571**	**0.8040**	**5.7300e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,148.5447**	**1,148.5447**	**0.0220**	**0.0211**	**1,155.3700**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.446301	4.8100e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5060	52.5060	1.0100e-003	9.6000e-004	52.8181
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0.396712	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003		46.6720	46.6720	8.9000e-004	8.6000e-004	46.9494
General Light Industry	5.75233	0.0620	0.5640	0.4737	3.3800e-003		0.0429	0.0429		0.0429	0.0429		676.7446	676.7446	0.0130	0.0124	680.7661
General Office Building	0.0855616	9.2000e-004	8.3900e-003	7.0500e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.0661	10.0661	1.9000e-004	1.8000e-004	10.1259
General Office Building	1.96792	0.0212	0.1929	0.1621	1.1600e-003		0.0147	0.0147		0.0147	0.0147		231.5197	231.5197	4.4400e-003	4.2400e-003	232.8956
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0.942192	0.0102	0.0924	0.0776	5.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003		110.8461	110.8461	2.1200e-003	2.0300e-003	111.5048
Unrefrigerated Warehouse-No Rail	0.171616	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003		20.1902	20.1902	3.9000e-004	3.7000e-004	20.3102
Total		**0.1053**	**0.9571**	**0.8040**	**5.7300e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,148.5447**	**1,148.5447**	**0.0220**	**0.0211**	**1,155.3700**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Unmitigated	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6100e-003	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Total	**6.7952**	**6.5000e-004**	**0.0718**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.0000e-004**		**0.1643**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6100e-003	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Total	**6.7952**	**6.5000e-004**	**0.0718**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.0000e-004**		**0.1643**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	4.00	260	89	0.20	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.4345	4.0927	5.6688	7.6400e-003		0.2191	0.2191		0.2016	0.2016		740.1542	740.1542	0.2394		746.1387
Total	**0.4345**	**4.0927**	**5.6688**	**7.6400e-003**		**0.2191**	**0.2191**		**0.2016**	**0.2016**		**740.1542**	**740.1542**	**0.2394**		**746.1387**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Mid Valley Water Facility Unmitigated

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	69.00	1000sqft	1.58	69,000.00	0
General Office Building	3.00	1000sqft	0.07	3,000.00	0
Research & Development	19.00	1000sqft	0.44	19,000.00	0
General Light Industry	116.00	1000sqft	2.66	116,000.00	0
General Light Industry	8.00	1000sqft	0.18	8,000.00	0
Unrefrigerated Warehouse-No Rail	72.00	1000sqft	1.65	72,000.00	0
Enclosed Parking Structure	216.00	1000sqft	4.96	216,000.00	0
Other Asphalt Surfaces	181.00	1000sqft	4.16	181,000.00	0
Other Asphalt Surfaces	12.00	1000sqft	0.28	12,000.00	0
Automobile Care Center	9.00	1000sqft	0.21	9,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	758.16	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Los Angeles Department of Water and Power adjusted for 43.2% RPS in 2026

Land Use -

Construction Phase - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant.

Off-road Equipment - Data provided by applicant

Off-road Equipment - Data provided by applicant.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Data provided by applicant.

Grading - Data provided by applicant.

Trips and VMT - Data provided by applicant.

Vehicle Trips - Data provided by Traffic Report.

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Operational Off-Road Equipment - Data provided by applicant.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	42.00

tblConstructionPhase	NumDays	300.00	22.00
tblConstructionPhase	NumDays	300.00	108.00
tblConstructionPhase	NumDays	30.00	130.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	300.00	195.00
tblConstructionPhase	NumDays	300.00	238.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	300.00	261.00
tblConstructionPhase	NumDays	300.00	238.00
tblGrading	AcresOfGrading	325.00	6.57
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts

tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Pavers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	1227.89	758.16
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	HaulingTripNumber	0.00	11,118.00
tblTripsAndVMT	HaulingTripNumber	0.00	4,000.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	116.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	0.00
tblTripsAndVMT	VendorTripNumber	116.00	0.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	22.00
tblTripsAndVMT	VendorTripNumber	116.00	4.00
tblTripsAndVMT	VendorTripNumber	116.00	16.00
tblTripsAndVMT	VendorTripNumber	116.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	116.00	12.00
tblTripsAndVMT	VendorTripNumber	116.00	24.00

tblTripsAndVMT	WorkerTripNumber	20.00	16.00
tblTripsAndVMT	WorkerTripNumber	286.00	6.00
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tblTripsAndVMT	WorkerTripNumber	286.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	16.00
tblTripsAndVMT	WorkerTripNumber	286.00	16.00
tblTripsAndVMT	WorkerTripNumber	57.00	44.00
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tblTripsAndVMT	WorkerTripNumber	286.00	18.00
tblTripsAndVMT	WorkerTripNumber	286.00	48.00
tblVehicleTrips	ST_TR	23.72	0.00
tblVehicleTrips	ST_TR	1.32	2.22
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	0.68	1.14
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	6.97	11.72
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.2690	75.0704	37.4645	0.1286	18.2803	2.2724	20.4804	9.9877	2.0935	12.0119	0.0000	13,230.8877	13,230.8877	2.4034	0.0000	13,290.9739
2021	11.5339	91.9555	91.5699	0.1719	8.0058	4.5103	10.0718	3.8367	4.2942	5.7401	0.0000	16,278.2983	16,278.2983	2.8772	0.0000	16,350.2280
2022	72.1082	83.6727	89.9371	0.1711	2.4122	3.8405	6.2526	0.6493	3.6589	4.3082	0.0000	16,198.7764	16,198.7764	2.8293	0.0000	16,269.5097
2023	3.1559	34.6030	27.8783	0.0773	2.8680	1.2885	4.1565	0.7266	1.2005	1.9271	0.0000	7,764.2647	7,764.2647	1.4886	0.0000	7,801.4787
Maximum	**72.1082**	**91.9555**	**91.5699**	**0.1719**	**18.2803**	**4.5103**	**20.4804**	**9.9877**	**4.2942**	**12.0119**	**0.0000**	**16,278.2983**	**16,278.2983**	**2.8772**	**0.0000**	**16,350.2280**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	5.2690	75.0704	37.4645	0.1286	9.3168	2.2724	11.5891	3.9300	2.0935	5.9542	0.0000	13,230.8877	13,230.8877	2.4034	0.0000	13,290.9739
2021	11.5339	91.9555	91.5699	0.1719	4.2996	4.5103	6.9225	1.8139	4.2942	4.9435	0.0000	16,278.2983	16,278.2983	2.8772	0.0000	16,350.2280
2022	72.1082	83.6727	89.9371	0.1711	2.4122	3.8405	6.2526	0.6493	3.6589	4.3082	0.0000	16,198.7763	16,198.7763	2.8293	0.0000	16,269.5097
2023	3.1559	34.6030	27.8783	0.0773	2.8680	1.2885	4.1565	0.7266	1.2005	1.9271	0.0000	7,764.2647	7,764.2647	1.4886	0.0000	7,801.4787
Maximum	**72.1082**	**91.9555**	**91.5699**	**0.1719**	**9.3168**	**4.5103**	**11.5891**	**3.9300**	**4.2942**	**5.9542**	**0.0000**	**16,278.2983**	**16,278.2983**	**2.8772**	**0.0000**	**16,350.2280**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**40.14**	**0.00**	**29.39**	**53.16**	**0.00**	**28.57**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Energy	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
Mobile	2.2686	10.7345	32.6091	0.1411	13.6808	0.1068	13.7876	3.6602	0.0992	3.7593		14,411.3704	14,411.3704	0.6488		14,427.5911
Offroad	0.4366	4.1132	5.6971	7.6800e-003		0.2202	0.2202		0.2026	0.2026		743.8549	743.8549	0.2406		749.8694
Total	**9.6057**	**15.8054**	**39.1820**	**0.1546**	**13.6808**	**0.4000**	**14.0808**	**3.6602**	**0.3747**	**4.0349**		**16,303.9244**	**16,303.9244**	**0.9118**	**0.0211**	**16,332.9948**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Energy	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
Mobile	2.2686	10.7345	32.6091	0.1411	13.6808	0.1068	13.7876	3.6602	0.0992	3.7593		14,411.3704	14,411.3704	0.6488		14,427.5911
Offroad	0.4366	4.1132	5.6971	7.6800e-003		0.2202	0.2202		0.2026	0.2026		743.8549	743.8549	0.2406		749.8694
Total	**9.6057**	**15.8054**	**39.1820**	**0.1546**	**13.6808**	**0.4000**	**14.0808**	**3.6602**	**0.3747**	**4.0349**		**16,303.9244**	**16,303.9244**	**0.9118**	**0.0211**	**16,332.9948**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Mid Valley Water Facility Unmitigated - Los Angeles-South Coast County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2020	11/30/2020	5	21	
2	Grading	Grading	12/1/2020	5/31/2021	5	130	
3	Perimeter Walls Construction	Building Construction	7/1/2021	7/30/2021	5	22	
4	Paving & Site Infrastructure	Paving	8/1/2021	8/21/2021	5	15	
5	Street Improvement of Hazeltine Avenue	Building Construction	9/1/2022	1/30/2023	5	108	
6	Architectural Coating	Architectural Coating	9/1/2022	10/30/2022	5	42	
7	Trenching & Underground Utilities	Trenching	7/1/2021	7/30/2021	5	22	
8	Office Building & Staff Parking	Building Construction	9/1/2021	5/31/2022	5	195	
9	Water Distribution Shop and Maintenance Building	Building Construction	9/1/2021	7/30/2022	5	238	
10	Department Fleet Vehicles Parking	Building Construction	9/1/2021	8/31/2022	5	261	
11	Supply Chain Services Warehouse	Building Construction	9/1/2021	8/31/2022	5	261	
12	Fleet Maintenance Building and CNG Dispensing Area	Building Construction	9/1/2021	7/30/2022	5	238	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 6.57

Acres of Paving: 9.4

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 444,000; Non-Residential Outdoor: 148,000; Striped Parking Area: 24,540 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Office Building & Staff Parking	Cranes	1	4.00	231	0.29
Office Building & Staff Parking	Forklifts	2	6.00	89	0.20
Office Building & Staff Parking	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Office Building & Staff Parking	Forklifts	2	7.00	89	0.20
Office Building & Staff Parking	Generator Sets	1	8.00	84	0.74
Office Building & Staff Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Office Building & Staff Parking	Welders	3	8.00	46	0.45
Water Distribution Shop and Maintenance Building	Cranes	1	8.00	231	0.29
Water Distribution Shop and Maintenance Building	Forklifts	2	7.00	89	0.20
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Perimeter Walls Construction	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Perimeter Walls Construction	Concrete/Industrial Saws	1	8.00	81	0.73
Street Improvement of Hazeltine Avenue	Excavators	1	8.00	158	0.38
Street Improvement of Hazeltine Avenue	Graders	1	8.00	187	0.41
Street Improvement of Hazeltine Avenue	Rubber Tired Dozers	1	8.00	247	0.40
Trenching & Underground Utilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Trenching & Underground Utilities	Plate Compactors	1	8.00	8	0.43
Trenching & Underground Utilities	Trenchers	1	8.00	78	0.50
Water Distribution Shop and Maintenance Building	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Water Distribution Shop and Maintenance Building	Welders	3	8.00	46	0.45
Water Distribution Shop and Maintenance Building	Generator Sets	1	8.00	84	0.74
Department Fleet Vehicles Parking	Cranes	1	8.00	231	0.29
Department Fleet Vehicles Parking	Forklifts	2	7.00	89	0.20

Department Fleet Vehicles Parking	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Department Fleet Vehicles Parking	Welders	3	8.00	46	0.45
Paving & Site Infrastructure	Pavers	2	8.00	130	0.42
Department Fleet Vehicles Parking	Generator Sets	1	8.00	84	0.74
Supply Chain Services Warehouse	Cranes	1	6.00	231	0.29
Architectural Coating	Air Compressors	1	6.00	78	0.48
Supply Chain Services Warehouse	Forklifts	1	6.00	89	0.20
Supply Chain Services Warehouse	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Supply Chain Services Warehouse	Welders	3	8.00	46	0.45
Street Improvement of Hazeltine Avenue	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Supply Chain Services Warehouse	Generator Sets	1	8.00	84	0.74
Perimeter Walls Construction	Cement and Mortar Mixers	1	8.00	9	0.56
Perimeter Walls Construction	Paving Equipment	1	8.00	132	0.36
Fleet Maintenance Building and CNG Dispensing Area	Cranes	1	4.00	231	0.29
Fleet Maintenance Building and CNG Dispensing Area	Forklifts	2	6.00	89	0.20
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Pavers	1	6.00	130	0.42
Fleet Maintenance Building and CNG Dispensing Area	Rollers	1	7.00	80	0.38
Fleet Maintenance Building and CNG Dispensing Area	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Paving Equipment	1	8.00	132	0.36
Perimeter Walls Construction	Cranes	1	7.00	231	0.29
Street Improvement of Hazeltine Avenue	Cranes	1	7.00	231	0.29
Perimeter Walls Construction	Forklifts	3	8.00	89	0.20
Street Improvement of Hazeltine Avenue	Forklifts	3	8.00	89	0.20
Fleet Maintenance Building and CNG Dispensing Area	Generator Sets	1	8.00	84	0.74

Perimeter Walls Construction	Generator Sets	1	8.00	84	0.74
Street Improvement of Hazeltine Avenue	Generator Sets	1	8.00	84	0.74
Paving & Site Infrastructure	Paving Equipment	2	8.00	132	0.36
Paving & Site Infrastructure	Rollers	2	8.00	80	0.38
Grading	Scrapers	2	8.00	367	0.48
Perimeter Walls Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Fleet Maintenance Building and CNG Dispensing Area	Welders	1	8.00	46	0.45
Perimeter Walls Construction	Welders	1	8.00	46	0.45
Street Improvement of Hazeltine Avenue	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	16.00	2.00	11,118.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	6.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Perimeter Walls Construction	13	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving & Site Infrastructure	6	16.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	44.00	22.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Street Improvement of Hazeltine Avenue	12	16.00	2.00	4,000.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Department Fleet Vehicles Parking	8	68.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Supply Chain Services Warehouse	7	28.00	16.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Fleet Maintenance Building and CNG Dis	11	16.00	10.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Trenching & Underground Utilities	4	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Office Building & Staff Parking	12	18.00	12.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Water Distribution Shop and Maintenanc	8	48.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**18.0663**	**2.1974**	**20.2637**	**9.9307**	**2.0216**	**11.9523**		**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0994**	**0.2779**	**0.7833**	**2.5000e-003**	**0.2140**	**2.7000e-003**	**0.2167**	**0.0571**	**2.5200e-003**	**0.0596**		**253.2255**	**253.2255**	**9.8800e-003**		**253.4726**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	**4.0765**	**42.4173**	**21.5136**	**0.0380**	**7.0458**	**2.1974**	**9.2433**	**3.8730**	**2.0216**	**5.8946**	**0.0000**	**3,685.1016**	**3,685.1016**	**1.1918**		**3,714.8975**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0994**	**0.2779**	**0.7833**	**2.5000e-003**	**0.2140**	**2.7000e-003**	**0.2167**	**0.0571**	**2.5200e-003**	**0.0596**		**253.2255**	**253.2255**	**9.8800e-003**		**253.4726**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0757	0.0000	6.0757	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	4.4146	49.8900	30.9702	0.0599		2.1902	2.1902		2.0149	2.0149		5,806.5154	5,806.5154	1.8779		5,853.4640
Total	**4.4146**	**49.8900**	**30.9702**	**0.0599**	**6.0757**	**2.1902**	**8.2658**	**3.3160**	**2.0149**	**5.3310**		**5,806.5154**	**5,806.5154**	**1.8779**		**5,853.4640**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7652	24.9097	5.7912	0.0664	6.7556	0.0797	6.8353	1.7011	0.0762	1.7773		7,193.2953	7,193.2953	0.5163		7,206.2031
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0818	0.0580	0.6416	1.7800e-003	0.1788	1.4900e-003	0.1803	0.0474	1.3800e-003	0.0488		177.1873	177.1873	5.5800e-003		177.3269
Total	**0.8544**	**25.1804**	**6.4943**	**0.0687**	**6.9472**	**0.0822**	**7.0294**	**1.7522**	**0.0786**	**1.8308**		**7,424.3723**	**7,424.3723**	**0.5255**		**7,437.5099**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3695	0.0000	2.3695	1.2933	0.0000	1.2933			0.0000			0.0000
Off-Road	4.4146	49.8900	30.9702	0.0599		2.1902	2.1902		2.0149	2.0149	0.0000	5,806.5154	5,806.5154	1.8779		5,853.4640
Total	**4.4146**	**49.8900**	**30.9702**	**0.0599**	**2.3695**	**2.1902**	**4.5597**	**1.2933**	**2.0149**	**3.3082**	**0.0000**	**5,806.5154**	**5,806.5154**	**1.8779**		**5,853.4640**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7652	24.9097	5.7912	0.0664	6.7556	0.0797	6.8353	1.7011	0.0762	1.7773		7,193.2953	7,193.2953	0.5163		7,206.2031
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0818	0.0580	0.6416	1.7800e-003	0.1788	1.4900e-003	0.1803	0.0474	1.3800e-003	0.0488		177.1873	177.1873	5.5800e-003		177.3269
Total	**0.8544**	**25.1804**	**6.4943**	**0.0687**	**6.9472**	**0.0822**	**7.0294**	**1.7522**	**0.0786**	**1.8308**		**7,424.3723**	**7,424.3723**	**0.5255**		**7,437.5099**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0757	0.0000	6.0757	3.3160	0.0000	3.3160			0.0000			0.0000
Off-Road	4.1493	46.1422	29.8669	0.0600		1.9927	1.9927		1.8333	1.8333		5,807.7515	5,807.7515	1.8783		5,854.7102
Total	**4.1493**	**46.1422**	**29.8669**	**0.0600**	**6.0757**	**1.9927**	**8.0684**	**3.3160**	**1.8333**	**5.1493**		**5,807.7515**	**5,807.7515**	**1.8783**		**5,854.7102**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7303	23.2220	5.7038	0.0656	1.7385	0.0715	1.8099	0.4696	0.0684	0.5380		7,113.6650	7,113.6650	0.5086		7,126.3797
Vendor	6.3800e-003	0.1938	0.0562	5.0000e-004	0.0128	4.1000e-004	0.0132	3.6900e-003	3.9000e-004	4.0800e-003		53.4691	53.4691	3.4500e-003		53.5554
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.8129**	**23.4680**	**6.3492**	**0.0678**	**1.9301**	**0.0733**	**2.0034**	**0.5207**	**0.0701**	**0.5908**		**7,338.6943**	**7,338.6943**	**0.5171**		**7,351.6215**

3.3 Grading - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3695	0.0000	2.3695	1.2933	0.0000	1.2933			0.0000			0.0000
Off-Road	4.1493	46.1422	29.8669	0.0600		1.9927	1.9927		1.8333	1.8333	0.0000	5,807.7515	5,807.7515	1.8783		5,854.7102
Total	**4.1493**	**46.1422**	**29.8669**	**0.0600**	**2.3695**	**1.9927**	**4.3622**	**1.2933**	**1.8333**	**3.1265**	**0.0000**	**5,807.7515**	**5,807.7515**	**1.8783**		**5,854.7102**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7303	23.2220	5.7038	0.0656	1.7385	0.0715	1.8099	0.4696	0.0684	0.5380		7,113.6650	7,113.6650	0.5086		7,126.3797
Vendor	6.3800e-003	0.1938	0.0562	5.0000e-004	0.0128	4.1000e-004	0.0132	3.6900e-003	3.9000e-004	4.0800e-003		53.4691	53.4691	3.4500e-003		53.5554
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.8129**	**23.4680**	**6.3492**	**0.0678**	**1.9301**	**0.0733**	**2.0034**	**0.5207**	**0.0701**	**0.5908**		**7,338.6943**	**7,338.6943**	**0.5171**		**7,351.6215**

3.4 Perimeter Walls Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7947	25.8012	25.1730	0.0474		1.3335	1.3335		1.2612	1.2612		4,503.0630	4,503.0630	1.0782		4,530.0187
Total	**2.7947**	**25.8012**	**25.1730**	**0.0474**		**1.3335**	**1.3335**		**1.2612**	**1.2612**		**4,503.0630**	**4,503.0630**	**1.0782**		**4,530.0187**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0621	8.2000e-004	0.0629	0.0163	7.8000e-004	0.0171		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.0286	0.0196	0.2210	6.5000e-004	0.1837	5.4000e-004	0.1842	0.0464	5.0000e-004	0.0469		64.3351	64.3351	1.8900e-003		64.3824
Total	**0.0414**	**0.4071**	**0.3333**	**1.6500e-003**	**0.2458**	**1.3600e-003**	**0.2471**	**0.0627**	**1.2800e-003**	**0.0640**		**171.2733**	**171.2733**	**8.7900e-003**		**171.4932**

3.4 Perimeter Walls Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7947	25.8012	25.1730	0.0474		1.3335	1.3335		1.2612	1.2612	0.0000	4,503.0630	4,503.0630	1.0782		4,530.0187
Total	**2.7947**	**25.8012**	**25.1730**	**0.0474**		**1.3335**	**1.3335**		**1.2612**	**1.2612**	**0.0000**	**4,503.0630**	**4,503.0630**	**1.0782**		**4,530.0187**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0621	8.2000e-004	0.0629	0.0163	7.8000e-004	0.0171		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.0286	0.0196	0.2210	6.5000e-004	0.1837	5.4000e-004	0.1842	0.0464	5.0000e-004	0.0469		64.3351	64.3351	1.8900e-003		64.3824
Total	**0.0414**	**0.4071**	**0.3333**	**1.6500e-003**	**0.2458**	**1.3600e-003**	**0.2471**	**0.0627**	**1.2800e-003**	**0.0640**		**171.2733**	**171.2733**	**8.7900e-003**		**171.4932**

3.5 Paving & Site Infrastructure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0311**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.0891**	**0.4397**	**0.7015**	**2.7200e-003**	**0.2045**	**2.2700e-003**	**0.2067**	**0.0548**	**2.1100e-003**	**0.0569**		**278.4984**	**278.4984**	**0.0120**		**278.7972**

3.5 Paving & Site Infrastructure - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.7755					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0311**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**	**0.0000**	**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.0891**	**0.4397**	**0.7015**	**2.7200e-003**	**0.2045**	**2.2700e-003**	**0.2067**	**0.0548**	**2.1100e-003**	**0.0569**		**278.4984**	**278.4984**	**0.0120**		**278.7972**

3.6 Street Improvement of Hazeltine Avenue - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2225	32.0722	25.7615	0.0484		1.5133	1.5133		1.4091	1.4091		4,635.6278	4,635.6278	1.2851		4,667.7547
Total	**3.2225**	**32.0722**	**25.7615**	**0.0484**		**1.5133**	**1.5133**		**1.4091**	**1.4091**		**4,635.6278**	**4,635.6278**	**1.2851**		**4,667.7547**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3010	9.3345	2.4399	0.0280	0.7658	0.0269	0.7927	0.2065	0.0257	0.2323		3,043.7657	3,043.7657	0.2167		3,049.1834
Vendor	5.9900e-003	0.1842	0.0532	5.0000e-004	0.0128	3.6000e-004	0.0132	3.6900e-003	3.4000e-004	4.0300e-003		52.9941	52.9941	3.3300e-003		53.0773
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.3786**	**9.5658**	**3.0357**	**0.0302**	**0.9575**	**0.0287**	**0.9861**	**0.2577**	**0.0274**	**0.2850**		**3,262.2909**	**3,262.2909**	**0.2246**		**3,267.9058**

3.6 Street Improvement of Hazeltine Avenue - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.2225	32.0722	25.7615	0.0484		1.5133	1.5133		1.4091	1.4091	0.0000	4,635.6278	4,635.6278	1.2851		4,667.7547
Total	**3.2225**	**32.0722**	**25.7615**	**0.0484**		**1.5133**	**1.5133**		**1.4091**	**1.4091**	**0.0000**	**4,635.6278**	**4,635.6278**	**1.2851**		**4,667.7547**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3010	9.3345	2.4399	0.0280	0.7658	0.0269	0.7927	0.2065	0.0257	0.2323		3,043.7657	3,043.7657	0.2167		3,049.1834
Vendor	5.9900e-003	0.1842	0.0532	5.0000e-004	0.0128	3.6000e-004	0.0132	3.6900e-003	3.4000e-004	4.0300e-003		52.9941	52.9941	3.3300e-003		53.0773
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.3786**	**9.5658**	**3.0357**	**0.0302**	**0.9575**	**0.0287**	**0.9861**	**0.2577**	**0.0274**	**0.2850**		**3,262.2909**	**3,262.2909**	**0.2246**		**3,267.9058**

3.6 Street Improvement of Hazeltine Avenue - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8863	28.2896	25.1375	0.0484		1.2756	1.2756		1.1883	1.1883		4,636.2626	4,636.2626	1.2809		4,668.2851
Total	**2.8863**	**28.2896**	**25.1375**	**0.0484**		**1.2756**	**1.2756**		**1.1883**	**1.1883**		**4,636.2626**	**4,636.2626**	**1.2809**		**4,668.2851**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1976	6.1313	2.1948	0.0268	2.6763	0.0113	2.6876	0.6755	0.0109	0.6863		2,917.1786	2,917.1786	0.2006		2,922.1942
Vendor	4.4500e-003	0.1395	0.0472	4.8000e-004	0.0128	1.7000e-004	0.0130	3.6900e-003	1.6000e-004	3.8500e-003		51.3483	51.3483	2.9300e-003		51.4216
Worker	0.0675	0.0426	0.4988	1.6000e-003	0.1788	1.3600e-003	0.1802	0.0474	1.2500e-003	0.0487		159.4753	159.4753	4.1000e-003		159.5779
Total	**0.2696**	**6.3134**	**2.7408**	**0.0289**	**2.8680**	**0.0129**	**2.8808**	**0.7266**	**0.0123**	**0.7389**		**3,128.0021**	**3,128.0021**	**0.2077**		**3,133.1936**

3.6 Street Improvement of Hazeltine Avenue - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8863	28.2896	25.1375	0.0484		1.2756	1.2756		1.1883	1.1883	0.0000	4,636.2626	4,636.2626	1.2809		4,668.2851
Total	**2.8863**	**28.2896**	**25.1375**	**0.0484**		**1.2756**	**1.2756**		**1.1883**	**1.1883**	**0.0000**	**4,636.2626**	**4,636.2626**	**1.2809**		**4,668.2851**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1976	6.1313	2.1948	0.0268	2.6763	0.0113	2.6876	0.6755	0.0109	0.6863		2,917.1786	2,917.1786	0.2006		2,922.1942
Vendor	4.4500e-003	0.1395	0.0472	4.8000e-004	0.0128	1.7000e-004	0.0130	3.6900e-003	1.6000e-004	3.8500e-003		51.3483	51.3483	2.9300e-003		51.4216
Worker	0.0675	0.0426	0.4988	1.6000e-003	0.1788	1.3600e-003	0.1802	0.0474	1.2500e-003	0.0487		159.4753	159.4753	4.1000e-003		159.5779
Total	**0.2696**	**6.3134**	**2.7408**	**0.0289**	**2.8680**	**0.0129**	**2.8808**	**0.7266**	**0.0123**	**0.7389**		**3,128.0021**	**3,128.0021**	**0.2077**		**3,133.1936**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	68.0396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**68.2441**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0659	2.0257	0.5847	5.4500e-003	0.1409	3.9400e-003	0.1448	0.0406	3.7700e-003	0.0443		582.9346	582.9346	0.0366		583.8505
Worker	0.1971	0.1296	1.4924	4.5700e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		455.2106	455.2106	0.0125		455.5239
Total	**0.2630**	**2.1553**	**2.0771**	**0.0100**	**0.6327**	**7.7900e-003**	**0.6405**	**0.1710**	**7.3200e-003**	**0.1783**		**1,038.1452**	**1,038.1452**	**0.0492**		**1,039.3744**

3.7 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	68.0396					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**68.2441**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0659	2.0257	0.5847	5.4500e-003	0.1409	3.9400e-003	0.1448	0.0406	3.7700e-003	0.0443		582.9346	582.9346	0.0366		583.8505
Worker	0.1971	0.1296	1.4924	4.5700e-003	0.4918	3.8500e-003	0.4957	0.1304	3.5500e-003	0.1340		455.2106	455.2106	0.0125		455.5239
Total	**0.2630**	**2.1553**	**2.0771**	**0.0100**	**0.6327**	**7.7900e-003**	**0.6405**	**0.1710**	**7.3200e-003**	**0.1783**		**1,038.1452**	**1,038.1452**	**0.0492**		**1,039.3744**

3.8 Trenching & Underground Utilities - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7971	7.5550	7.3373	0.0101		0.4883	0.4883		0.4500	0.4500		963.2020	963.2020	0.3040		970.8007
Total	**0.7971**	**7.5550**	**7.3373**	**0.0101**		**0.4883**	**0.4883**		**0.4500**	**0.4500**		**963.2020**	**963.2020**	**0.3040**		**970.8007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3800e-003	0.1938	0.0562	5.0000e-004	0.0128	4.1000e-004	0.0132	3.6900e-003	3.9000e-004	4.0800e-003		53.4691	53.4691	3.4500e-003		53.5554
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0541**	**0.2264**	**0.4244**	**1.5800e-003**	**0.1246**	**1.3100e-003**	**0.1259**	**0.0333**	**1.2200e-003**	**0.0346**		**160.6942**	**160.6942**	**6.6100e-003**		**160.8594**

3.8 Trenching & Underground Utilities - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7971	7.5550	7.3373	0.0101		0.4883	0.4883		0.4500	0.4500	0.0000	963.2020	963.2020	0.3040		970.8007
Total	**0.7971**	**7.5550**	**7.3373**	**0.0101**		**0.4883**	**0.4883**		**0.4500**	**0.4500**	**0.0000**	**963.2020**	**963.2020**	**0.3040**		**970.8007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3800e-003	0.1938	0.0562	5.0000e-004	0.0128	4.1000e-004	0.0132	3.6900e-003	3.9000e-004	4.0800e-003		53.4691	53.4691	3.4500e-003		53.5554
Worker	0.0477	0.0326	0.3683	1.0800e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		107.2251	107.2251	3.1600e-003		107.3040
Total	**0.0541**	**0.2264**	**0.4244**	**1.5800e-003**	**0.1246**	**1.3100e-003**	**0.1259**	**0.0333**	**1.2200e-003**	**0.0346**		**160.6942**	**160.6942**	**6.6100e-003**		**160.8594**

3.9 Office Building & Staff Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4071	19.1632	19.8438	0.0306		1.0679	1.0679		1.0137	1.0137		2,833.4125	2,833.4125	0.6264		2,849.0729
Total	**2.4071**	**19.1632**	**19.8438**	**0.0306**		**1.0679**	**1.0679**		**1.0137**	**1.0137**		**2,833.4125**	**2,833.4125**	**0.6264**		**2,849.0729**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.1627	0.3369	3.0000e-003	0.0768	2.4600e-003	0.0793	0.0221	2.3500e-003	0.0245		320.8146	320.8146	0.0207		321.3324
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.1241**	**1.2214**	**0.9998**	**4.9400e-003**	**0.2780**	**4.0900e-003**	**0.2821**	**0.0755**	**3.8500e-003**	**0.0793**		**513.8198**	**513.8198**	**0.0264**		**514.4796**

3.9 Office Building & Staff Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4071	19.1632	19.8438	0.0306		1.0679	1.0679		1.0137	1.0137	0.0000	2,833.4125	2,833.4125	0.6264		2,849.0729
Total	**2.4071**	**19.1632**	**19.8438**	**0.0306**		**1.0679**	**1.0679**		**1.0137**	**1.0137**	**0.0000**	**2,833.4125**	**2,833.4125**	**0.6264**		**2,849.0729**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0383	1.1627	0.3369	3.0000e-003	0.0768	2.4600e-003	0.0793	0.0221	2.3500e-003	0.0245		320.8146	320.8146	0.0207		321.3324
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.1241**	**1.2214**	**0.9998**	**4.9400e-003**	**0.2780**	**4.0900e-003**	**0.2821**	**0.0755**	**3.8500e-003**	**0.0793**		**513.8198**	**513.8198**	**0.0264**		**514.4796**

3.9 Office Building & Staff Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1688	17.4455	19.6136	0.0307		0.9004	0.9004		0.8554	0.8554		2,834.3902	2,834.3902	0.6180		2,849.8394
Total	**2.1688**	**17.4455**	**19.6136**	**0.0307**		**0.9004**	**0.9004**		**0.8554**	**0.8554**		**2,834.3902**	**2,834.3902**	**0.6180**		**2,849.8394**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1050	0.3189	2.9700e-003	0.0768	2.1500e-003	0.0790	0.0221	2.0600e-003	0.0242		317.9643	317.9643	0.0200		318.4639
Worker	0.0806	0.0530	0.6105	1.8700e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		186.2225	186.2225	5.1300e-003		186.3507
Total	**0.1166**	**1.1580**	**0.9294**	**4.8400e-003**	**0.2780**	**3.7200e-003**	**0.2818**	**0.0755**	**3.5100e-003**	**0.0790**		**504.1868**	**504.1868**	**0.0251**		**504.8146**

3.9 Office Building & Staff Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1688	17.4455	19.6136	0.0307		0.9004	0.9004		0.8554	0.8554	0.0000	2,834.3902	2,834.3902	0.6180		2,849.8394
Total	**2.1688**	**17.4455**	**19.6136**	**0.0307**		**0.9004**	**0.9004**		**0.8554**	**0.8554**	**0.0000**	**2,834.3902**	**2,834.3902**	**0.6180**		**2,849.8394**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0360	1.1050	0.3189	2.9700e-003	0.0768	2.1500e-003	0.0790	0.0221	2.0600e-003	0.0242		317.9643	317.9643	0.0200		318.4639
Worker	0.0806	0.0530	0.6105	1.8700e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		186.2225	186.2225	5.1300e-003		186.3507
Total	**0.1166**	**1.1580**	**0.9294**	**4.8400e-003**	**0.2780**	**3.7200e-003**	**0.2818**	**0.0755**	**3.5100e-003**	**0.0790**		**504.1868**	**504.1868**	**0.0251**		**504.8146**

3.10 Water Distribution Shop and Maintenance Building - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0766	2.3253	0.6739	6.0100e-003	0.1537	4.9200e-003	0.1586	0.0442	4.7000e-003	0.0489		641.6293	641.6293	0.0414		642.6648
Worker	0.2289	0.1566	1.7676	5.1700e-003	0.5365	4.3400e-003	0.5409	0.1423	3.9900e-003	0.1463		514.6805	514.6805	0.0152		515.0592
Total	**0.3055**	**2.4819**	**2.4415**	**0.0112**	**0.6902**	**9.2600e-003**	**0.6994**	**0.1865**	**8.6900e-003**	**0.1952**		**1,156.3098**	**1,156.3098**	**0.0566**		**1,157.7240**

3.10 Water Distribution Shop and Maintenance Building - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0766	2.3253	0.6739	6.0100e-003	0.1537	4.9200e-003	0.1586	0.0442	4.7000e-003	0.0489		641.6293	641.6293	0.0414		642.6648
Worker	0.2289	0.1566	1.7676	5.1700e-003	0.5365	4.3400e-003	0.5409	0.1423	3.9900e-003	0.1463		514.6805	514.6805	0.0152		515.0592
Total	**0.3055**	**2.4819**	**2.4415**	**0.0112**	**0.6902**	**9.2600e-003**	**0.6994**	**0.1865**	**8.6900e-003**	**0.1952**		**1,156.3098**	**1,156.3098**	**0.0566**		**1,157.7240**

3.10 Water Distribution Shop and Maintenance Building - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0719	2.2099	0.6379	5.9500e-003	0.1537	4.3000e-003	0.1580	0.0442	4.1100e-003	0.0484		635.9287	635.9287	0.0400		636.9278
Worker	0.2150	0.1414	1.6281	4.9800e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8700e-003	0.1462		496.5933	496.5933	0.0137		496.9352
Total	**0.2869**	**2.3513**	**2.2659**	**0.0109**	**0.6902**	**8.5000e-003**	**0.6987**	**0.1865**	**7.9800e-003**	**0.1945**		**1,132.5220**	**1,132.5220**	**0.0536**		**1,133.8630**

3.10 Water Distribution Shop and Maintenance Building - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0719	2.2099	0.6379	5.9500e-003	0.1537	4.3000e-003	0.1580	0.0442	4.1100e-003	0.0484		635.9287	635.9287	0.0400		636.9278
Worker	0.2150	0.1414	1.6281	4.9800e-003	0.5365	4.2000e-003	0.5407	0.1423	3.8700e-003	0.1462		496.5933	496.5933	0.0137		496.9352
Total	**0.2869**	**2.3513**	**2.2659**	**0.0109**	**0.6902**	**8.5000e-003**	**0.6987**	**0.1865**	**7.9800e-003**	**0.1945**		**1,132.5220**	**1,132.5220**	**0.0536**		**1,133.8630**

3.11 Department Fleet Vehicles Parking - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.3242	0.2218	2.5041	7.3200e-003	0.7601	6.1400e-003	0.7662	0.2016	5.6600e-003	0.2072		729.1307	729.1307	0.0215		729.6671
Total	**0.3370**	**0.6093**	**2.6165**	**8.3200e-003**	**0.7857**	**6.9600e-003**	**0.7927**	**0.2090**	**6.4400e-003**	**0.2154**		**836.0690**	**836.0690**	**0.0284**		**836.7779**

3.11 Department Fleet Vehicles Parking - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0128	0.3876	0.1123	1.0000e-003	0.0256	8.2000e-004	0.0264	7.3700e-003	7.8000e-004	8.1600e-003		106.9382	106.9382	6.9000e-003		107.1108
Worker	0.3242	0.2218	2.5041	7.3200e-003	0.7601	6.1400e-003	0.7662	0.2016	5.6600e-003	0.2072		729.1307	729.1307	0.0215		729.6671
Total	**0.3370**	**0.6093**	**2.6165**	**8.3200e-003**	**0.7857**	**6.9600e-003**	**0.7927**	**0.2090**	**6.4400e-003**	**0.2154**		**836.0690**	**836.0690**	**0.0284**		**836.7779**

3.11 Department Fleet Vehicles Parking - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731		2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**		**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0256	7.2000e-004	0.0263	7.3700e-003	6.9000e-004	8.0600e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.3045	0.2003	2.3064	7.0600e-003	0.7601	5.9500e-003	0.7660	0.2016	5.4800e-003	0.2071		703.5072	703.5072	0.0194		703.9915
Total	**0.3165**	**0.5686**	**2.4127**	**8.0500e-003**	**0.7857**	**6.6700e-003**	**0.7924**	**0.2090**	**6.1700e-003**	**0.2151**		**809.4953**	**809.4953**	**0.0260**		**810.1461**

3.11 Department Fleet Vehicles Parking - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8555	14.6040	14.3533	0.0250		0.7022	0.7022		0.6731	0.6731	0.0000	2,289.2813	2,289.2813	0.4417		2,300.3230
Total	**1.8555**	**14.6040**	**14.3533**	**0.0250**		**0.7022**	**0.7022**		**0.6731**	**0.6731**	**0.0000**	**2,289.2813**	**2,289.2813**	**0.4417**		**2,300.3230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0256	7.2000e-004	0.0263	7.3700e-003	6.9000e-004	8.0600e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.3045	0.2003	2.3064	7.0600e-003	0.7601	5.9500e-003	0.7660	0.2016	5.4800e-003	0.2071		703.5072	703.5072	0.0194		703.9915
Total	**0.3165**	**0.5686**	**2.4127**	**8.0500e-003**	**0.7857**	**6.6700e-003**	**0.7924**	**0.2090**	**6.1700e-003**	**0.2151**		**809.4953**	**809.4953**	**0.0260**		**810.1461**

3.12 Supply Chain Services Warehouse - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0511	1.5502	0.4492	4.0000e-003	0.1024	3.2800e-003	0.1057	0.0295	3.1400e-003	0.0326		427.7528	427.7528	0.0276		428.4432
Worker	0.1335	0.0913	1.0311	3.0100e-003	0.3130	2.5300e-003	0.3155	0.0830	2.3300e-003	0.0853		300.2303	300.2303	8.8300e-003		300.4512
Total	**0.1846**	**1.6415**	**1.4804**	**7.0100e-003**	**0.4154**	**5.8100e-003**	**0.4212**	**0.1125**	**5.4700e-003**	**0.1180**		**727.9832**	**727.9832**	**0.0364**		**728.8944**

3.12 Supply Chain Services Warehouse - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0511	1.5502	0.4492	4.0000e-003	0.1024	3.2800e-003	0.1057	0.0295	3.1400e-003	0.0326		427.7528	427.7528	0.0276		428.4432
Worker	0.1335	0.0913	1.0311	3.0100e-003	0.3130	2.5300e-003	0.3155	0.0830	2.3300e-003	0.0853		300.2303	300.2303	8.8300e-003		300.4512
Total	**0.1846**	**1.6415**	**1.4804**	**7.0100e-003**	**0.4154**	**5.8100e-003**	**0.4212**	**0.1125**	**5.4700e-003**	**0.1180**		**727.9832**	**727.9832**	**0.0364**		**728.8944**

3.12 Supply Chain Services Warehouse - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0479	1.4733	0.4252	3.9600e-003	0.1024	2.8700e-003	0.1053	0.0295	2.7400e-003	0.0322		423.9525	423.9525	0.0266		424.6186
Worker	0.1254	0.0825	0.9497	2.9100e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		289.6795	289.6795	7.9800e-003		289.8789
Total	**0.1733**	**1.5557**	**1.3749**	**6.8700e-003**	**0.4154**	**5.3200e-003**	**0.4207**	**0.1125**	**5.0000e-003**	**0.1175**		**713.6319**	**713.6319**	**0.0346**		**714.4974**

3.12 Supply Chain Services Warehouse - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0479	1.4733	0.4252	3.9600e-003	0.1024	2.8700e-003	0.1053	0.0295	2.7400e-003	0.0322		423.9525	423.9525	0.0266		424.6186
Worker	0.1254	0.0825	0.9497	2.9100e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		289.6795	289.6795	7.9800e-003		289.8789
Total	**0.1733**	**1.5557**	**1.3749**	**6.8700e-003**	**0.4154**	**5.3200e-003**	**0.4207**	**0.1125**	**5.0000e-003**	**0.1175**		**713.6319**	**713.6319**	**0.0346**		**714.4974**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1649	20.1261	21.2928	0.0335		1.0940	1.0940		1.0258	1.0258		3,192.7073	3,192.7073	0.8228		3,213.2770
Total	**2.1649**	**20.1261**	**21.2928**	**0.0335**		**1.0940**	**1.0940**		**1.0258**	**1.0258**		**3,192.7073**	**3,192.7073**	**0.8228**		**3,213.2770**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0319	0.9689	0.2808	2.5000e-003	0.0640	2.0500e-003	0.0661	0.0184	1.9600e-003	0.0204		267.3455	267.3455	0.0173		267.7770
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.1082**	**1.0211**	**0.8700**	**4.2200e-003**	**0.2429**	**3.5000e-003**	**0.2464**	**0.0659**	**3.2900e-003**	**0.0692**		**438.9057**	**438.9057**	**0.0223**		**439.4634**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1649	20.1261	21.2928	0.0335		1.0940	1.0940		1.0258	1.0258	0.0000	3,192.7073	3,192.7073	0.8228		3,213.2770
Total	**2.1649**	**20.1261**	**21.2928**	**0.0335**		**1.0940**	**1.0940**		**1.0258**	**1.0258**	**0.0000**	**3,192.7073**	**3,192.7073**	**0.8228**		**3,213.2770**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0319	0.9689	0.2808	2.5000e-003	0.0640	2.0500e-003	0.0661	0.0184	1.9600e-003	0.0204		267.3455	267.3455	0.0173		267.7770
Worker	0.0763	0.0522	0.5892	1.7200e-003	0.1788	1.4500e-003	0.1803	0.0474	1.3300e-003	0.0488		171.5602	171.5602	5.0500e-003		171.6864
Total	**0.1082**	**1.0211**	**0.8700**	**4.2200e-003**	**0.2429**	**3.5000e-003**	**0.2464**	**0.0659**	**3.2900e-003**	**0.0692**		**438.9057**	**438.9057**	**0.0223**		**439.4634**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9366	17.9145	21.0991	0.0335		0.9194	0.9194		0.8627	0.8627		3,193.9433	3,193.9433	0.8188		3,214.4134
Total	**1.9366**	**17.9145**	**21.0991**	**0.0335**		**0.9194**	**0.9194**		**0.8627**	**0.8627**		**3,193.9433**	**3,193.9433**	**0.8188**		**3,214.4134**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0300	0.9208	0.2658	2.4800e-003	0.0640	1.7900e-003	0.0658	0.0184	1.7100e-003	0.0202		264.9703	264.9703	0.0167		265.3866
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.1016**	**0.9679**	**0.8085**	**4.1400e-003**	**0.2429**	**3.1900e-003**	**0.2461**	**0.0659**	**3.0000e-003**	**0.0689**		**430.5014**	**430.5014**	**0.0212**		**431.0317**

3.13 Fleet Maintenance Building and CNG Dispensing Area - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9366	17.9145	21.0991	0.0335		0.9194	0.9194		0.8627	0.8627	0.0000	3,193.9432	3,193.9432	0.8188		3,214.4134
Total	**1.9366**	**17.9145**	**21.0991**	**0.0335**		**0.9194**	**0.9194**		**0.8627**	**0.8627**	**0.0000**	**3,193.9432**	**3,193.9432**	**0.8188**		**3,214.4134**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0300	0.9208	0.2658	2.4800e-003	0.0640	1.7900e-003	0.0658	0.0184	1.7100e-003	0.0202		264.9703	264.9703	0.0167		265.3866
Worker	0.0717	0.0471	0.5427	1.6600e-003	0.1788	1.4000e-003	0.1802	0.0474	1.2900e-003	0.0487		165.5311	165.5311	4.5600e-003		165.6451
Total	**0.1016**	**0.9679**	**0.8085**	**4.1400e-003**	**0.2429**	**3.1900e-003**	**0.2461**	**0.0659**	**3.0000e-003**	**0.0689**		**430.5014**	**430.5014**	**0.0212**		**431.0317**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2686	10.7345	32.6091	0.1411	13.6808	0.1068	13.7876	3.6602	0.0992	3.7593		14,411.3704	14,411.3704	0.6488		14,427.5911
Unmitigated	2.2686	10.7345	32.6091	0.1411	13.6808	0.1068	13.7876	3.6602	0.0992	3.7593		14,411.3704	14,411.3704	0.6488		14,427.5911

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
General Light Industry	1,359.52	257.52	132.24	4,546,804	4,546,804
General Light Industry	93.76	17.76	9.12	313,573	313,573
General Office Building	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	1,453.28	275.28	141.36	4,860,376	4,860,376

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	16.60	8.40	6.90	33.00	48.00	19.00	21	51	28
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking Structure	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Light Industry	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
General Office Building	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Other Asphalt Surfaces	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Research & Development	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Unrefrigerated Warehouse-No Rail	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Mid Valley Water Facility Unmitigated - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700
NaturalGas Unmitigated	0.1053	0.9571	0.8040	5.7400e-003		0.0727	0.0727		0.0727	0.0727		1,148.5447	1,148.5447	0.0220	0.0211	1,155.3700

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	446.301	4.8100e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5060	52.5060	1.0100e-003	9.6000e-004	52.8181
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	396.712	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003		46.6720	46.6720	8.9000e-004	8.6000e-004	46.9494
General Light Industry	5752.33	0.0620	0.5640	0.4737	3.3800e-003		0.0429	0.0429		0.0429	0.0429		676.7446	676.7446	0.0130	0.0124	680.7661
General Office Building	1967.92	0.0212	0.1929	0.1621	1.1600e-003		0.0147	0.0147		0.0147	0.0147		231.5197	231.5197	4.4400e-003	4.2400e-003	232.8956
General Office Building	85.5616	9.2000e-004	8.3900e-003	7.0500e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.0661	10.0661	1.9000e-004	1.8000e-004	10.1259
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	942.192	0.0102	0.0924	0.0776	5.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003		110.8461	110.8461	2.1200e-003	2.0300e-003	111.5048
Unrefrigerated Warehouse-No Rail	171.616	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003		20.1902	20.1902	3.9000e-004	3.7000e-004	20.3102
Total		**0.1053**	**0.9571**	**0.8040**	**5.7300e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,148.5447**	**1,148.5447**	**0.0220**	**0.0211**	**1,155.3700**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.446301	4.8100e-003	0.0438	0.0368	2.6000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003		52.5060	52.5060	1.0100e-003	9.6000e-004	52.8181
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	0.396712	4.2800e-003	0.0389	0.0327	2.3000e-004		2.9600e-003	2.9600e-003		2.9600e-003	2.9600e-003		46.6720	46.6720	8.9000e-004	8.6000e-004	46.9494
General Light Industry	5.75233	0.0620	0.5640	0.4737	3.3800e-003		0.0429	0.0429		0.0429	0.0429		676.7446	676.7446	0.0130	0.0124	680.7661
General Office Building	0.0855616	9.2000e-004	8.3900e-003	7.0500e-003	5.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004		10.0661	10.0661	1.9000e-004	1.8000e-004	10.1259
General Office Building	1.96792	0.0212	0.1929	0.1621	1.1600e-003		0.0147	0.0147		0.0147	0.0147		231.5197	231.5197	4.4400e-003	4.2400e-003	232.8956
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0.942192	0.0102	0.0924	0.0776	5.5000e-004		7.0200e-003	7.0200e-003		7.0200e-003	7.0200e-003		110.8461	110.8461	2.1200e-003	2.0300e-003	111.5048
Unrefrigerated Warehouse-No Rail	0.171616	1.8500e-003	0.0168	0.0141	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003		20.1902	20.1902	3.9000e-004	3.7000e-004	20.3102
Total		**0.1053**	**0.9571**	**0.8040**	**5.7300e-003**		**0.0728**	**0.0728**		**0.0728**	**0.0728**		**1,148.5447**	**1,148.5447**	**0.0220**	**0.0211**	**1,155.3700**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Unmitigated	6.7952	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6100e-003	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Total	**6.7952**	**6.5000e-004**	**0.0718**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.0000e-004**		**0.1643**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7829					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.0057					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.6100e-003	6.5000e-004	0.0718	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1543	0.1543	4.0000e-004		0.1643
Total	**6.7952**	**6.5000e-004**	**0.0718**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**		**0.1543**	**0.1543**	**4.0000e-004**		**0.1643**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	10	4.00	260	89	0.20	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Forklifts	0.4366	4.1132	5.6971	7.6800e-003		0.2202	0.2202		0.2026	0.2026		743.8549	743.8549	0.2406		749.8694
Total	**0.4366**	**4.1132**	**5.6971**	**7.6800e-003**		**0.2202**	**0.2202**		**0.2026**	**0.2026**		**743.8549**	**743.8549**	**0.2406**		**749.8694**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

2026

Los Angeles Department of Water & Power
Effect of 43.2% RPS
Based on 2007 Baseline Data

2007 Emission Factor[1]	1228.00	lb CO2/MWh
2007 Renewables[2]	8%	
Without RPS	1334.78	lb CO2/MWh
Future Renewables[3]	43%	
With 43.2% RPS	758.16	lb CO2/MWh
Reduction	38.3%	

All renewable energy is assumed to be carbon neutral (i.e. no emissions from biogenic sources).

1. CalEEMod User's Guide, Appendix D, Table 1.2
2. LADWP. 2007 Power Content Label (Actual)
3.RPS at 43.2%
http://www.cpuc.ca.gov/RPS_Homepage/

CH4

2007 Emission Factor[1]	0.029
With 43.2% RPS	0.018

N2O

2007 Emission Factor[1]	0.00617
With 43.2% RPS	0.00381

Mid Valley Water Facility Emissions Summary - Unmitigated

Estimated Maximum Daily Construction Emissions – Unmitigated

Year	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
2020	5.27	75.07	37.46	0.13	11.59	5.95
2021	11.53	91.96	92.01	0.17	6.92	4.94
2022	72.11	83.67	90.35	0.17	6.25	4.31
2023	3.16	34.60	27.83	0.08	4.16	1.93
Maximum	*72.11*	*91.96*	*92.01*	*0.17*	*11.59*	*5.95*
SCAQMD Threhsold	**75**	**100**	**550**	**150**	**150**	**55**

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons			
2020	176.39	0.04	0.00	177.30
2021	1,368.81	0.25	0.00	1,375.04
2022	1,440.35	0.25	0.00	1,446.58
2023	74.28	0.01	0.00	74.63
Total	*1,440.35*	*0.25*	*0.00*	*1,446.58*
			30-Year Amortized Emissions	*48.22*

Estimated Daily Maximum Operational Emissions (2026) – Unmitigated

Emissions Source	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Maintenance Scenario						
Area	6.80	0.00	0.07	0.00	0.00	0.00
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	2.34	10.73	34.75	0.15	13.79	3.76
Forklifts	0.44	4.11	5.70	0.01	0.22	0.20
Spray Booth	7.84	—	—	—	1.6	1.6
Emergency Generators	0.60	5.44	3.31	0.01	0.19	0.19
Combined Total Emissions	**18.12**	**21.24**	**44.64**	**0.17**	**15.87**	**5.82**
SCAQMD Pollutant Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Testing Scenario						
Area	6.80	0.00	0.07	0.00	0.00	0.00
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	2.34	10.73	34.75	0.15	13.79	3.76
Forklifts	0.44	4.11	5.70	0.01	0.22	0.20
Spray Booth	7.84	—	—	—	1.6	1.6
Emergency Generators	102.00	922.00	560.00	1.00	32.20	32.00
Combined Total Emissions	**119.52**	**937.80**	**601.33**	**1.16**	**47.88**	**37.63**
SCAQMD Pollutant Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

Emissions Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons			
Area	0.02	0.00	0.00	0.02
Energy	1,609.76	0.04	0.01	1,613.96
Mobile	1,820.80	0.08	0.00	1,822.81
Forklifts	87.73	0.03	0.00	88.44
Solid waste	65.81	3.89	0.00	163.05
Water supply and wastewater	359.51	2.23	0.05	431.55
Emergency generator maintenance and testing	-	-	-	98.00
			Operation Total Emissions	4,217.83
			Amortized Construction Emissions	48.22
			Operation + amortized construction Emissions	4,266.05

Back-calculated emissions for mitigation measure MM-AQ-1

Emissions Source	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Testing Scenario						
Area	6.80	0.00	0.07	0.00	0.00	0.00
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	2.34	10.73	34.75	0.15	13.79	3.76
Forklifts	0.44	4.11	5.70	0.01	0.22	0.20
Spray Booth	7.84	—	—	—	1.60	1.60
Combined Total Emissions (minus Emergency Generators)	**17.52**	**15.80**	**41.33**	**0.16**	**15.68**	**5.63**
SCAQMD Pollutant Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Emergency Generator Allowed Emissions	37.48	39.20	508.67	149.84	134.32	49.37

Testing Emissions (lb/day)	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Gen 1	22.80	205.10	124.70	0.20	7.20	7.10
Gen 3	34.20	307.60	187.00	0.40	10.80	10.70
Gen 4	26.40	237.60	144.50	0.30	8.30	8.30
Gen 5	19.10	171.50	104.30	0.20	6.00	6.00

Adjusted Gen 3 (lb/day)	4.28	38.45	23.38	0.05	1.35	1.34

Hourly limits (hr/day)	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Gen 1	39.46	4.59	97.90	17,980.62	447.73	166.87
Gen 3	26.30	3.06	65.28	8,990.31	298.49	110.73
Gen 4	34.08	3.96	84.49	11,987.08	388.39	142.74
Gen 5	47.10	5.49	117.05	17,980.62	537.28	197.46

Estimated Daily Maximum Operational Emissions (2026) – Mitigated

Emissions Source	VOCs	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Testing Scenario						
Area	6.80	0.00	0.07	0.00	0.00	0.00
Energy	0.11	0.96	0.80	0.01	0.07	0.07
Mobile	2.34	10.73	34.75	0.15	13.79	3.76
Forklifts	0.44	4.11	5.70	0.01	0.22	0.20
Spray Booth	7.84	—	—	—	1.6	1.6
Emergency Generators	4.28	38.45	23.38	0.05	1.35	1.34
Combined Total Emissions	**21.79**	**54.25**	**64.70**	**0.21**	**17.03**	**6.97**
SCAQMD Pollutant Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: VND&Sherman
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	1.0 M/S	Z0=	100. CM	ALT=	244.1 (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. WBRA	500	32	24	32	AG	244	2.4	0.0	33.0
B. WBTA	500	20	0	20	AG	1248	2.4	0.0	33.0
C. WBLA	500	0	-24	0	AG	105	2.4	0.0	33.0
D. WBD	500	-24	0	-24	AG	1614	2.4	0.0	33.0
E. EBLA	24	-12	-500	-12	AG	164	2.4	0.0	33.0
F. EBTA	0	-24	-500	-24	AG	1172	2.4	0.0	33.0
G. EBRA	-24	-42	-500	-42	AG	205	2.4	0.0	33.0
H. EBD	0	24	-500	24	AG	1829	2.4	0.0	33.0
I. NBLA	0	0	0	-500	AG	267	2.4	0.0	33.0
J. NBTA	12	0	12	-500	AG	1098	2.4	0.0	33.0
K. NBRA	24	-24	24	-500	AG	166	2.4	0.0	33.0
L. NBD	-24	0	-24	-500	AG	1191	2.4	0.0	33.0
M. SBLA	-12	500	-12	0	AG	415	2.4	0.0	33.0
N. SBTA	-24	500	-24	0	AG	922	2.4	0.0	33.0
O. SBRA	-40	24	-40	500	AG	175	2.4	0.0	33.0
P. SBD	20	500	20	0	AG	1547	2.4	0.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. S1	25	55	5.9

2. S2	*	-25	55	5.9
3. S3	*	-25	-45	5.9
4. S4	*	30	-45	5.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: VND&Sherman
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. S1	187.	3.7	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
2. S2	174.	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3. S3	4.	3.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
4. S4	351.	3.7	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. S1	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.2
2. S2	0.0	0.1	0.0	0.2	0.1	0.1	0.0	0.0
3. S3	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.1
4. S4	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Woodman&Sherman
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	1.0 M/S	Z0=	100. CM	ALT=	244.1 (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. WBRA	500	32	24	32	AG	337	2.4	0.0	33.0
B. WBTA	500	20	0	20	AG	27	2.4	0.0	33.0
C. WBLA	500	0	-24	0	AG	332	2.4	0.0	33.0
D. WBD	500	-24	0	-24	AG	739	2.4	0.0	33.0
E. EBLA	24	-12	-500	-12	AG	64	2.4	0.0	33.0
F. EBTA	0	-24	-500	-24	AG	104	2.4	0.0	33.0
G. EBRA	-24	-42	-500	-42	AG	70	2.4	0.0	33.0
H. EBD	0	24	-500	24	AG	85	2.4	0.0	33.0
I. NBLA	0	0	0	-500	AG	253	2.4	0.0	33.0
J. NBTA	12	0	12	-500	AG	1699	2.4	0.0	33.0
K. NBRA	24	-24	24	-500	AG	35	2.4	0.0	33.0
L. NBD	-24	0	-24	-500	AG	1787	2.4	0.0	33.0
M. SBLA	-12	500	-12	0	AG	23	2.4	0.0	33.0
N. SBTA	-24	500	-24	0	AG	1391	2.4	0.0	33.0
O. SBRA	-40	24	-40	500	AG	382	2.4	0.0	33.0
P. SBD	20	500	20	0	AG	2106	2.4	0.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. S1	25	55	5.9

2. S2	*	-25	55	5.9
3. S3	*	-25	-45	5.9
4. S4	*	30	-45	5.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Woodman&Sherman
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. S1	188.	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. S2	175.	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. S3	3.	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. S4	352.	3.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. S1	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.3
2. S2	0.0	0.1	0.0	0.2	0.0	0.2	0.0	0.0
3. S3	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.1
4. S4	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.3

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: Woodman&Valerio
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

I. SITE VARIABLES

U=	1.0 M/S	Z0=	100. CM	ALT=	244.1 (M)
BRG=	WORST CASE	VD=	0.0 CM/S		
CLAS=	7 (G)	VS=	0.0 CM/S		
MIXH=	1000. M	AMB=	3.0 PPM		
SIGTH=	10. DEGREES	TEMP=	4.4 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (FT) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)
A. WBRA	500	32	24	32	AG	353	2.4	0.0	33.0
B. WBTA	500	20	0	20	AG	23	2.4	0.0	33.0
C. WBLA	500	0	-24	0	AG	86	2.4	0.0	33.0
D. WBD	500	-24	0	-24	AG	662	2.4	0.0	33.0
E. EBLA	24	-12	-500	-12	AG	59	2.4	0.0	33.0
F. EBTA	0	-24	-500	-24	AG	32	2.4	0.0	33.0
G. EBRA	-24	-42	-500	-42	AG	38	2.4	0.0	33.0
H. EBD	0	24	-500	24	AG	63	2.4	0.0	33.0
I. NBLA	0	0	0	-500	AG	66	2.4	0.0	33.0
J. NBTA	12	0	12	-500	AG	1076	2.4	0.0	33.0
K. NBRA	24	-24	24	-500	AG	11	2.4	0.0	33.0
L. NBD	-24	0	-24	-500	AG	2154	2.4	0.0	33.0
M. SBLA	-12	500	-12	0	AG	29	2.4	0.0	33.0
N. SBTA	-24	500	-24	0	AG	2009	2.4	0.0	33.0
O. SBRA	-40	24	-40	500	AG	564	2.4	0.0	33.0
P. SBD	20	500	20	0	AG	1467	2.4	0.0	33.0

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. S1	25	55	5.9

2. S2	*	-25	55	5.9
3. S3	*	-25	-45	5.9
4. S4	*	30	-45	5.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: Woodman&Valerio
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT:

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. S1	189.	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. S2	178.	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. S3	1.	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. S4	348.	3.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P
1. S1	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2
2. S2	0.0	0.1	0.0	0.3	0.0	0.3	0.0	0.0
3. S3	0.0	0.0	0.0	0.2	0.0	0.3	0.1	0.1
4. S4	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2

LADWP Mid-Valley Water Facility Health Risk Assessment For Dudek

May 2019

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LADWP Mid-Valley Water Facility Health Risk Assessment

LADWP
Mid-Valley Water Facility
Health Risk Assessment

Prepared for:

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May 2019

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Appendices

List of Acronyms and Abbreviations

AB 2588	Assembly Bill 2588, Air Toxics "Hot Spots" Information and Assessment Act
ADMRT	Air Dispersion & Risk Tool
AERMOD	**A**merican Meteorological Society, **E**nvironmental Protection Agency **R**egulatory **Mod**el
ATCM	Airborne Toxic Control Measure
BHP-hr	Brake Horsepower Hour
CARB	California Air Resources Board
CAS No.	Chemical Abstracts Service Number
CCE	Capture & Control Efficiency
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNG	Compressed Natural Gas
DPM	Diesel Particulate Matter
Ds	Stack Diameter
EPA	[United States] Environmental Protection Agency
g	Gram
GEN	Generator
GLC	Ground Level Concentration
HARP2	Hotspots Analysis and Reporting Program, Version 2
HI	Hazard Index
HIA	Acute Hazard Index
HIC	Chronic Hazard Index
hr	Hour
HRA	Health Risk Assessment
Hs	Stack Height
HVLP	High Volume, Low Pressure
^{o}K	Degrees Kelvin
l	Liter
LADWP	Los Angeles Department of Water and Power
lb(s)	Pound(s)
LST	Localized Significance Threshold
m	Meter
MET	Meteorological
MICR	Maximum Individual Cancer Risk
MND	Mitigated Negative Declaration
NED	National Elevation Dataset
OEHHA	Office of Environmental Health Hazard Assessment
PH	Plume Height
PM	Particulate Matter
PM_{10}	Respirable Particulate Matter [Less Than 10 Microns in Size]

PW	Plume Width
RH	Release Height
s	Second
SCAQMD	South Coast Air Quality Management District
SDS	Safety Data Sheet
TAC	Toxic Air Contaminant
TEMP	Temperature
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compounds
WAF	Worker Adjustment Factor
WGS84	World Geodetic System 1984
yr	Year
z11	Zone 11

LADWP Mid-Valley Water Facility Health Risk Assessment

1.0 INTRODUCTION

The Los Angeles Department of Water and Power (LADWP) is proposing to install new emissions sources at its Mid-Valley Water Facility. This Health Risk Assessment (HRA) has been prepared by Yorke Engineering, LLC (Yorke) in support of the Draft Mitigated Negative Declaration (MND) prepared by Dudek for this Project. An HRA is needed in order to assess the potential for health risks due to emissions of toxic air contaminants (TACs) from the paint booth and new emergency generators that will be installed as part of this proposed Project. In addition, emissions from diesel forklifts and truck traffic are included in this analysis. This report addresses the emissions of TACs only, and other air quality-related issues are discussed elsewhere in the Draft MND.

1.1 Project Description

The LADWP Mid-Valley Water Facility involves the construction and operation of the following LADWP facilities and activities in addition to the current sources at this site:

- Meter Shop;
- Site Improvements Yards and Access
- Supply Chain Services;
- Fleet Parking and Services;
- Employee Parking; and
- Office and Amenities.

A total of 168,700 gross square feet of new buildings, 95,000 square feet of non-structured and structured parking would be constructed on a 17.3-acre parcel.

The Mid-Valley Water Facility development is planned to include the following:

- One (1) paint spray booth in the southern portion of the site within the meter shop;
- A compressed natural gas (CNG) fueling station that will be located in the southeastern portion of the site, with a dispenser located to the east of the internal roadway; and
- Four (4) emergency generators that will be located in four different locations, specifically between the office/amenities and meter shop, near the fleet operations, north of supply chain services and near the welding gases near the meter shop;
- Diesel forklifts and diesel truck traffic associated with the project.

Although listed above, the TAC emissions from the CNG fueling station are presumed to be negligible, and hence this source of TAC emissions was not included in the HRA.

1.2 Project Location

The LADWP Mid-Valley Water Facility is proposed to be located at 7600 North Tyrone Avenue in Van Nuys, California. Figure 1-1 shows the facility and its immediate surroundings. The site is located in a generally industrial area. A railroad track runs along the northern boundary of the site. There are schools and other sensitive receptors within a half mile of the site.

With respect to air quality regulation, this facility is located within the South Coast Air Quality Management District (SCAQMD). Therefore, calculations and analyses were performed consistent with SCAQMD requirements.

Figure 1-1: Map of Facility and Immediate Surroundings

2.0 EMISSION ESTIMATES

Emission calculations were performed for two categories of stationary sources at the facility: one paint spray booth and four emergency generators powered by diesel engines. In addition, the contribution from diesel truck traffic and forklifts were estimated by Dudek with CalEEMod. As noted in Section 1.1, although there is an CNG fueling station associated with the project, this source is expected to have negligible TAC emissions and hence was not analyzed as part of the HRA. Detailed emission estimation calculations are provided in Appendix A.

2.1 Spray Booth

Material mass balance calculations were performed for two types of SCAQMD Rule 1151(d)(1) compliant coatings to be used in the booth: "Amershield" (223 grams per liter [g/l] volatile organic compounds [VOC] as applied) and "Amerlock" (90 g/l VOC as applied). Per Rule definitions, the VOC contents are expressed as less water and less exempt compounds. Both coatings are under the 250 g/l limit in Rule 1151 for "Any Other Coating Type".

Both coatings are two-part chemistry where Part A is the resin and Part B is the hardener (catalyst) combined in a 3:1 ratio. LADWP has estimated that the spray booth would operate four days per week and use six gallons per day, therefore, annual usage would be as follows:

1 booth x 6 gallons/day x 4 days/week x 50 weeks/year = 1,200 gallons/year total usage

For risk assessment purposes, equal amounts of the two coatings were assumed, i.e., 600 gallons per year each comprising 450 gallons resin plus 150 gallons hardener. Safety Data Sheets (SDS) were reviewed for each material and the amount of listed TACs in VOC and corresponding emission factors for each component were determined as follows:

weight fraction TAC x specific gravity x 8.34 lbs/gallon = lbs/gallon TAC

Annual and hourly mass emissions of each TAC shown in Table 2-1 were calculated as follows:

lbs/gallon TAC x gallons/year sprayed = lbs/year TAC emitted

lbs/gallon TAC x gallons/hour sprayed = lbs/hour TAC emitted

Since the booth will be used for applying Rule 1151(d)(1) compliant coatings, VOC controls are not required by the SCAQMD; thus, TACs in the VOC emissions are uncontrolled.

For paint solids, particulate emissions are controlled by 1) HVLP (high-volume low-pressure) spray guns with a minimum transfer efficiency of 65 percent, and 2) high-efficiency particulate filters in the booth exhaust air pathway with a minimum control efficiency of 90 percent. Since the booth is totally enclosed, capture efficiency is 100 percent. Thus, combined capture and control efficiency (CCE) is 96.5 percent:

CCE = [1 – (1 – 0.65) x (1 – 0.90)] = 0.965 x 100 = 96.5 percent

Note that none of the coating materials proposed for use in the spray booth contain air toxic particulates, such as may be found in paint pigments. Therefore, although emissions of particulate matter were quantified using the methodology shown above, these emissions were not included in the modeling or HRA analysis for the project (Table 2-1).

Table 2-1: TAC Emission Summary – Spray Booth

Source	CAS No.	Toxic Air Contaminant	Annual Emissions (lbs/yr)	Hourly Emissions (lbs/hr)
Spray Booth	1330207	Xylene	261.5	0.33
	100414	Ethylbenzene	70.8	0.09
	108656	2-methoxy-1-methylethyl acetate	53.3	0.07
	822060	Hexamethylene diisocyanate	1.4	0.002
	95636	1,2,4-trimethylbenzene	56.3	0.07
	108952	Phenol	8.8	0.01

2.2 Diesel Emergency Generators

Four Tier 2 diesel emergency generators would be permitted to operate up to 50 hours per year for maintenance and testing purposes under the statewide Air Toxics Control Measure (ATCM) regulation (17 CCR 93115). As Tier 2 engines (40 CFR 89.112, EPA-420-B-16-022), emissions of diesel particulate matter (DPM) are limited to 0.15 grams per brake horsepower-hour (g/BHP-hr).

For each model of emergency generator, the manufacturer's performance data sheet was obtained to determine 1) rated engine horsepower, and 2) fuel consumption rates at 100, 75, 50, and 25 percent output loads. From these data, the percent of maximum fuel usage, i.e., input load factor, at maintenance load (i.e., 25 percent output) was calculated. Depending on engine size, these maintenance input load factors ranged between 27 and 29 percent of maximum fuel consumption. For each generator, DPM emissions were calculated as follows:

0.15 g/BHP-hr x rated BHP x load factor x 1 lb/453.6 g x 50 hours/year = lbs/year DPM

0.15 g/BHP-hr x rated BHP x load factor x 1 lb/453.6 g = lbs/hr DPM

For cancer and chronic hazard index risk assessment purposes, maintenance input load factors were used to predict the average annual DPM emission rates for 50 hours per year operation shown in Table 2-2. Also shown are maximum hourly emission rates at 100 percent load factor.

Table 2-2: TAC Emission Summary – Diesel Generators

Source	CAS No.	Toxic Air Contaminant	Annual Emissions (lbs/yr)	Hourly Emissions (lbs/hr)
Gen 1 - Supply Chain	9901	DPM	4.1	0.30
Gen 3 - Weld Shop	9901	DPM	6.5	0.45
Gen 4 - Meter Yard	9901	DPM	4.9	0.35
Gen 5 - Parking	9901	DPM	3.6	0.25

2.3 Diesel Forklifts and Truck Traffic

The primary TAC of concern emitted from the project vehicle operations is diesel particulate matter (DPM). Dudek estimated DPM emissions using CalEEMod. All respirable particulate matter (PM_{10}) emissions from the forklifts and onsite delivery truck exhaust were considered to be DPM for the HRA. The estimated emissions are shown in Table 2-3.

Table 2-3: TAC Emission Summary – Diesel Forklifts and Truck Traffic

Source	CAS No.	Toxic Air Contaminant	Annual Emissions (lbs/yr)	Hourly Emissions (lbs/hr)
Forklifts	9901	DPM	57.2	0.00918
Truck Traffic	9901	DPM	2.52	0.000378

3.0 MODELING AND RISK ASSESSMENT METHODOLOGIES

This section of the report discusses the methodology that was used to develop the air dispersion modeling and HRA.

3.1 Air Dispersion Modeling

Air dispersion models calculate the atmospheric transport and fate of pollutants from the emission source. The models calculate the concentration of selected pollutants at specific downwind ground-level points, such as residential or off-site workplace receptors. The transformation (fate) of an airborne pollutant, its movement with the prevailing winds (transport), its crosswind and vertical movement due to atmospheric turbulence (dispersion), and its removal due to dry and wet deposition are influenced by the pollutant's physical and chemical properties and by meteorological and environmental conditions. Factors such as distance from the source to the receptor, meteorological conditions, intervening land use and terrain, pollutant release characteristics, and background pollutant concentrations affect the predicted air concentration of an air pollutant. Air dispersion models take all of these factors into consideration when calculating downwind ground-level pollutant concentrations.

All geographical coordinates referenced in this section and appendices are in the Universal Transverse Mercator (UTM) coordinate system, with the WGS84 Datum, zone 11 (z11). AERMOD air dispersion modeling files used to create the dispersion characteristics used in the HRA are provided in Appendix B.

3.1.1 Model Selection

The air dispersion modeling methodology is based on generally accepted modeling practices of the SCAQMD (2018a). The air dispersion model used for this HRA was AERMOD Version 18081, with the Lakes Environmental Software implementation/user interface, AERMOD View™ Version 9.6.5. AERMOD was run with all sources emitting unit emissions (1 g/s) to obtain the X/Q values that are necessary for input into HARP2.

3.1.2 Modeling Options

Regulatory defaults, the "Urban" modeling option[1], and "Elevated" terrain were used for this analysis.

3.1.3 Meteorological Data

AERMOD-ready pre-processed meteorological (MET) data files were taken directly from the SCAQMD's website. Burbank was chosen as the MET station closest to and most representative of conditions at the facility. The MET data files contained data for the years 2012 through 2016.

3.1.4 Elevation Data

The AERMOD runs used the regulatory default elevated terrain option. Elevations for all receptors, buildings, and emissions sources were imported directly into AERMOD View™ using the WebGIS import feature from the 30-meter National Elevation Dataset (NED) files from the United States Geological Survey (USGS).

[1] The project is located in Los Angeles County. The population used for the analysis was 9,818,605 per https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance.

3.1.5 Receptors

HRA results were obtained at various locations around the facility. These receptor locations were identified as 1) the facility boundary; 2) a grid network of receptors to establish the impact area and area where the maximum impact would occur; and 3) discrete receptors that were positioned at specific locations of concern.

A plot plan of the facility was overlaid on an aerial map to establish the facility boundary. The facility boundary encompasses the proposed water yard project and the existing power yard. Fenceline receptors were placed every 100 meters apart.

A cascading grid of receptors was used to ensure impacts were below the appropriate SCAQMD California Environmental Quality Act (CEQA) thresholds at all locations offsite. These gridded receptors were located 100 meters apart from the fenceline out 500 meters, then 250 meters apart out to 2,000 meters.

Discrete Cartesian receptors were used to evaluate the locations of the maximally exposed residential, sensitive and off-site workplace. A series of receptors were placed along the residences to the south and northeast of the project. Receptors were located at the three nearest schools, Ranchito Avenue Elementary approximately 675 meters to the northeast, Panorama High School approximately 750 meters to the north, and Hazeltine Elementary approximately 850 meters to the south. To capture peak off-site worker exposure, receptors were located within the businesses to the south and north of the project. Figure 3-1 shows the locations of the discrete receptors, with the property line identified in red.

3.1.6 On-Site Buildings

On-site buildings close to the emission sources were included in the modeling using best available dimensional data. Building downwash effects were assessed using BPIPPRIME.

3.1.7 Emission Sources and Release Parameters

The exhaust stacks for the coating booth and each emergency generator were modeled as individual point sources (shown in red). The diesel truck traffic and forklifts were modeled as line-volume sources (shown in blue). Each emission source was sited using the plot plan provided, as shown in Figure 3-2. The release parameters for each source are shown in Table 3-1 and Table 3-2, respectively.

Figure 3-1: Residential, School, and Worker Receptor Locations

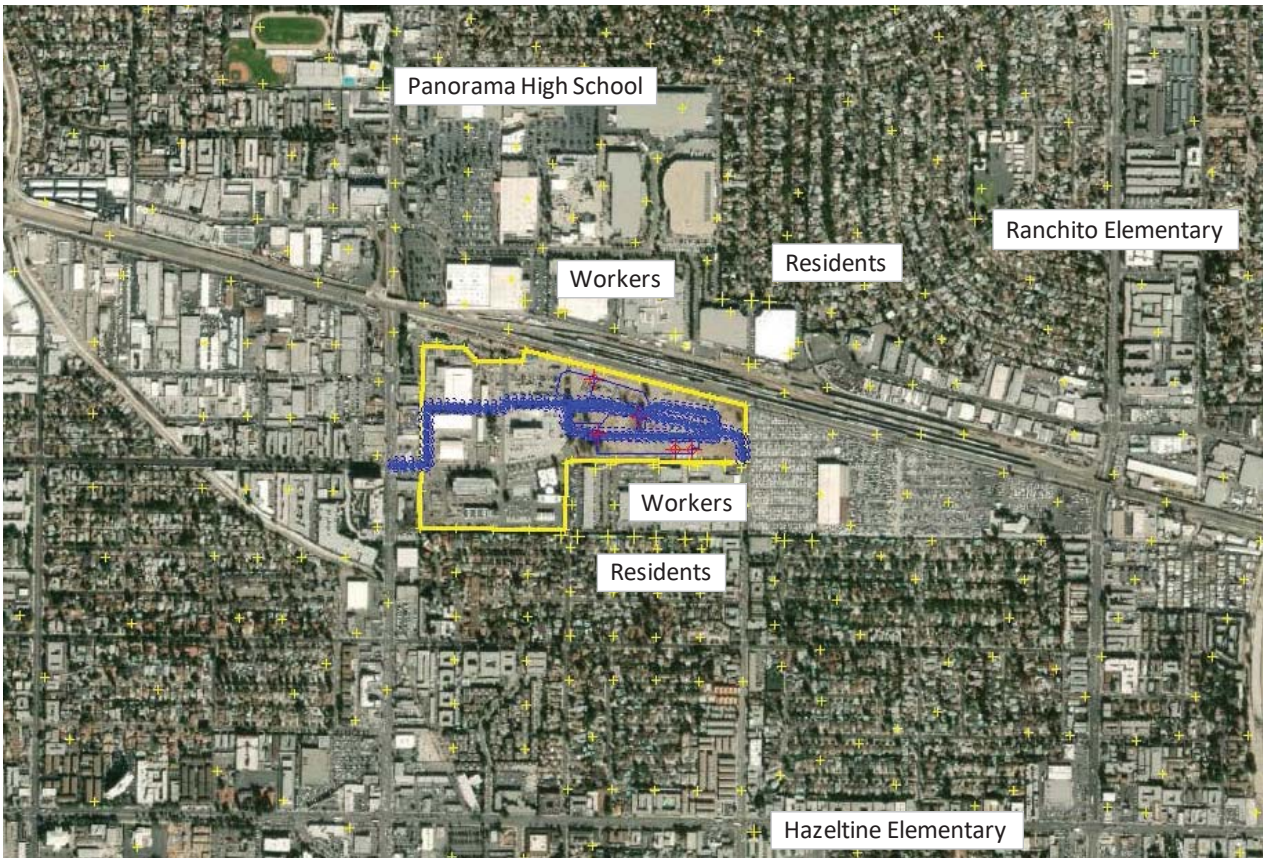

Figure 3-2: Source and Building Locations

Table 3-1: Emission Sources and Release Parameters for Point Sources

Stack IDs	Description	Stack Height	Stack Diameter	Stack Velocity	Stack Temp	UTM x	UTM y
		H_S	D_S	V_S	T_S	WGS84 z11	WGS84z11
		m	m	m/sec	°K	m	m
COATPNT	Paint Booth - Coating Shop	16.764	0.762	12.42	294	367,179.89	3,786,257.10
GEN1	Gen 1 - Supply Chain	3.480	0.152	98.76	734	366,992.03	3,786,417.87
GEN3	Gen 3 - Weld Shop	3.912	0.229	96.21	803	367,217.26	3,786,256.66
GEN4	Gen 4 - Meter Yard	3.912	0.203	96.30	823	367,001.32	3,786,292.33
GEN5	Gen 5 - Parking	3.327	0.152	93.29	797	367,097.76	3,786,334.59

Table 3-2: Emission Sources and Release Parameters for Diesel Truck Traffic and Forklifts

Stack IDs	Description	Plume Height	Plume Width	Release Height	Configuration Type
		PH	PW	RH	
		m	m	m	
SLINE1	Truck Traffic	5.1	9.0	2.55	Separated 2W
SLINE2	Forklifts	3.4	8.0	1.70	Separated 2W

3.2 Health Risk Assessment

The HRA followed the SCAQMD Tier-4 techniques, which are based on the California Office of Environmental Health Hazard Assessment (OEHHA) Tier-1 techniques, to calculate the health risk impacts at all receptors including the nearby residential, sensitive and off-site worker receptors. The health risk calculations were performed using the Hotspots Analysis and Reporting Program Version 2 (HARP2) Air Dispersion and Risk Tool (ADMRT, version 19044). The X/Q values that were determined for each source using AERMOD were imported into HARP2 and used in conjunction with hourly and annual emissions to determine the ground level concentrations (GLC) for each pollutant. The GLC are then used to estimate the long-term cancer health risk to an individual, and the non-cancer chronic and acute health indices.

A description of the health risk indices in the HARP2 output is provided below.

3.2.1 Maximum Individual Cancer Risk

Maximum Individual Cancer Risk (MICR) is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations and 25 years for off-site worker receptor locations. Sensitive receptors such as schools, hospitals, convalescent homes, and day-care centers are evaluated the same as residences.

Per SCAQMD guidance (2018b), the exposure pathways used to estimate the MICR for both residential/sensitive receptors and off-site workplace receptors are listed in Table 3-2. Any exposure pathways not explicitly shown in Table 3-3, e.g., drinking water consumption, were not included in this HRA.

Table 3-3: Exposure Pathways

Exposure Pathway	Residential/Sensitive	Off-Site Workplace
Inhalation	Yes	Yes
Homegrown Produce	Yes	No
Dermal	Yes	Yes
Soil Ingestion	Yes	Yes
Mother's Milk	Yes	No

Per SCAQMD guidelines (2018b), the MICR estimates assumed a deposition velocity of 0.02 meters per second and a warm climate for the dermal pathway. Residential/sensitive estimates were calculated using the Air Resources Board's Risk Management Policy (RMP), 'RMP Using the Derived Method', and off-site workplace MICR estimates used the 'OEHHA Derived' calculation method. The 'RMP Using the Derived Method' uses

high end breathing rates (95th percentile) for children from the 3rd trimester through age 2, and 80th percentile breathing rates for all other ages for residential exposures. The 'OEHHA Derived' method uses high end exposure parameters for the top two exposure pathways and mean exposure parameters for the remaining pathways for cancer risk estimates.

It was conservatively assumed that all nearby offsite workers will work 8 hours a day on weekdays. This schedule coincides with the anticipated project schedule, thus a worker adjustment factor (WAF) of 4.2 was applied in HARP2.

3.2.2 Chronic Hazard Risk

Some TACs increase non-cancer health risk due to long-term (chronic) exposures. The Chronic Hazard Index (HIC) is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. The HIC estimates for all receptor types used the 'OEHHA Derived' calculation method.

3.2.3 Acute Hazard Risk

Some TACs increase non-cancer health risk due to short-term (acute) exposures. The Acute Hazard Index (HIA) is the sum of the individual substance acute hazard indices for all TACs affecting the same target organ system. Acute risk is calculated from a 1-hour exposure using the 'OEHHA Derived' calculation method.

3.2.4 Cancer Burden

Cancer burden is the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million (1.0×10^{-6}) based on a 70-year exposure to TACs. The cancer burden is determined for the population located within the zone of impact, defined as the area within the one in one million cancer risk isopleth for a 70-year exposure.

4.0 RESULTS

The HARP2 output reports for all results presented in this section can be found in Appendix C, including the isopleth showing that the zone of impact from the 70-year cancer risk which extends offsite to the nearby residential population. The cancer burden impact is well below the SCAQMD significance threshold.

The results of the AERMOD/HARP2 HRA are summarized in Table 4-1. The following CEQA Significance Thresholds were used as the basis for determining impacts (SCAQMD 2019):

- Maximum Incremental Cancer Risk ≥ 10 in 1 million
- Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million)
- Chronic & Acute Hazard Index ≥ 1.0

This table shows that at all receptor types the predicted health risks are less than the SCAQMD Significance Thresholds.

Table 4-1: Health Risk Results

Impact Parameter	Receptor Type	Health Risk Impact (dimensionless)	SCAQMD Significance Threshold (dimensionless)	Significant (Yes/No)
MICR	Resident	6.55 in a million	10 in a million	No
	Worker	2.57 in a million	10 in a million	No
	Sensitive	1.35 in a million	10 in a million	No
HIC	Resident	0.00176	1	No
	Worker	0.00836	1	No
	Sensitive	0.000368	1	No
HIA	Resident	0.000391	1	No
	Worker	0.000498	1	No
	Sensitive	0.0000400	1	No
Cancer Burden		0.0243	0.5	No

5.0 REFERENCES

Office of Environmental Health Hazard Assessment (OEHHA), 2015, Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015.

South Coast Air Quality Management District (SCAQMD), 2018a, SCAQMD Modeling Guidance for AERMOD. https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance.

South Coast Air Quality Management District (SCAQMD), 2018b, AB 2588 and Rule 1402 Supplemental Guidelines (Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act), September 2018.

South Coast Air Quality Management District (SCAQMD). 2019. Air Quality Significance Thresholds. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

APPENDIX A – EMISSION CALCULATIONS

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Emergency Generators Specifications - Tier 2

Generator Location	Kohler Model No.	Engine Rating	Heat Rate	Exhaust Temp	Exhaust Height	Exhaust Diameter	Maint. Load	100% Load	75% Load	50% Load	33% Load	25% Load
		BHP	BTU/BHP-hr	°F	inches	inches	percent	gal/hr	gal/hr	gal/hr	gal/hr	gal/hr
Gen 1 - Supply Chain	600REOZVB	903	6,235	862	137	6	27.0%	40.8	29.7	20.0	14.0	11.0
Gen 3 - Weld Shop	900REOZDE	1354	6,584	986	154	9	28.9%	64.6	49.4	33.6	23.7	18.7
Gen 4 - Meter Yard	700REOZDE	1046	6,742	1022	154	8	28.4%	51.1	38.5	26.2	18.4	14.5
Gen 5 - Parking	500REOZJ	755	6,489	975	131	6	28.7%	35.5	27.6	19.9	13.4	10.2

Emergency Generators Average Hourly Emissions - 30 Minutes Maintenance Load

Generator Location	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Gen 1 - Supply Chain	0.13	1.15	0.70	0.00	0.04	0.04	124
Gen 3 - Weld Shop	0.21	1.85	1.13	0.00	0.06	0.06	211
Gen 4 - Meter Yard	0.16	1.41	0.85	0.00	0.05	0.05	164
Gen 5 - Parking	0.11	1.03	0.62	0.00	0.04	0.04	115
Maintenance Max (lbs/hr)	**0.21**	**1.85**	**1.13**	**0.00**	**0.06**	**0.06**	**211**
Daily Totals (lbs/day)	**0.60**	**5.44**	**3.31**	**0.01**	**0.19**	**0.19**	**614**

Emergency Generators Maxumim Hourly Emissions - 60 Minutes 100% Load

Generator Location	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Gen 1 - Supply Chain	0.95	8.55	5.20	0.01	0.30	0.30	921
Gen 3 - Weld Shop	1.42	12.82	7.79	0.02	0.45	0.45	1,459
Gen 4 - Meter Yard	1.10	9.90	6.02	0.01	0.35	0.34	1,154
Gen 5 - Parking	0.79	7.15	4.34	0.01	0.25	0.25	802
Testing Max (lbs/hr)	**1.42**	**12.82**	**7.79**	**0.02**	**0.45**	**0.45**	**1,459**
Daily Totals (lbs/day)	**4.27**	**38.41**	**23.35**	**0.04**	**1.34**	**1.33**	**4,335**

Emergency Generators Maximum Daily Emissions - 24 hours 100% Load

Generator Location	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Gen 1 - Supply Chain	22.8	205.1	124.7	0.2	7.2	7.1	22,108
Gen 3 - Weld Shop	34.2	307.6	187.0	0.4	10.8	10.7	35,006
Gen 4 - Meter Yard	26.4	237.6	144.5	0.3	8.3	8.3	27,692
Gen 5 - Parking	19.1	171.5	104.3	0.2	6.0	6.0	19,238
Daily Totals (lbs/day)	**102**	**922**	**560**	**1.0**	**32.2**	**32.0**	**104,044**

Emergency Generators Annual Average Emissions - ATCM 50 hours Maintenance Load

Generator Location	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
	lbs/yr	lbs/yr	lbs/yr	lbs/yr	lbs/yr	lbs/yr	MT/yr
Gen 1 - Supply Chain	12.9	115.4	70.1	0.1	4.1	4.0	5.6
Gen 3 - Weld Shop	20.6	185.2	112.6	0.2	6.5	6.4	9.6
Gen 4 - Meter Yard	15.6	140.6	85.5	0.2	4.9	4.9	7.4
Gen 5 - Parking	11.4	102.6	62.3	0.1	3.6	3.6	5.2
Annual Totals	**60**	**544**	**331**	**1**	**19**	**19**	**28**

Emergency Generators Annual PTE - ATCM 50 hours 100% Load

Generator Location	ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	MT/yr
Gen 1 - Supply Chain	0.02	0.21	0.13	0.0002	0.01	0.01	20.89
Gen 3 - Weld Shop	0.04	0.32	0.19	0.0004	0.01	0.01	33.08
Gen 4 - Meter Yard	0.03	0.25	0.15	0.0003	0.01	0.01	26.17
Gen 5 - Parking	0.02	0.18	0.11	0.0002	0.01	0.01	18.18
Annual Totals (tons/yr)	**0.11**	**0.96**	**0.58**	**0.001**	**0.03**	**0.03**	**98**

Source: EPA 2016. Emission Standards Reference Guide for On-road and Nonroad Vehicles and Engines
https://www.epa.gov/emission-standards-reference-guide

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Diesel Emergency Generator Emissions Calculations- Gen 1

Operating Parameters	References/Remarks	Value	Units
Annual Throughput	ATCM (new ≤ 0.15 g/BHP-hr)	50	hrs/yr
Daily Throughput	PTE	24	hrs/day
Hourly Throughput	PTE	1.0	hrs/hr
	maintenance operation	0.5	hrs/hr
Monthly Schedule	PTE	1	days/mo

Constants	References/Remarks	Value	Units
Diesel Fuel HHV	40 CFR 98 Table C-1	138000	BTU/gal
Heat Rate	600REOZVB	6,235	BTU/BHP-hr
Standard Molar Volume	EPA Method 19 (68°F, 20°C)	385.3	dscf/lb-mole
Dry Fd Factor	EPA Method 19 (68°F, 20°C)	9190	dscf/mmBTU
Wet Fw Factor	EPA Method 19 (68°F, 20°C)	10320	wscf/mmBTU

Release Parameters	References/Remarks	Value	Units
Generator Rating	Client specified		kW
Electromechanical Conversion	Typical range is 80-95%		percent
*Annual Avg. Maintenance Load	600REOZVB	27.0%	percent
Engine Rating	600REOZVB	903	BHP
Hourly Heat Input	Calculated for heat rate	5.63	mmBTU/hr
Stack Exit Temperature	600REOZVB	862	°F
Stack Exit Temperature	Calculated for modeling	734	°K
Stack Gas Oxygen Content	Standard	15.00	percent O_2
Stack Flowrate, wet standard	Calculated for percent O_2	3430	wscf/min
Stack Flowrate, actual	Calculated for stack temp	8589	wacf/min
Stack Flowrate, actual	Calculated for modeling	4.05	wacm/sec
Stack Height	600REOZVB	11.42	feet
Stack Height	Calculated for modeling	3.48	meters
Stack Diameter	600REOZVB	6.00	inches
Stack Diameter	Calculated for modeling	0.15	meters
Stack Velocity	Calculated for modeling	222.22	meters/sec
Stack Velocity	Informational	43744	feet/min

Diesel Emergency Generator Emissions Calculations- Gen 1

Criteria Pollutants, TACs, GHGs	CAS No.	Emission Factor	Average Hourly	Maximum Hourly	Maximum Daily	30-Day Average	Annual Total PTE		Annual Average*	Hourly Maximum
		lb/hr	lb/hr	lb/hr	lb/day	lb/day	lb/yr	tons/yr	g/sec	g/sec
CO (1-hr std)	630080.1	5.196	0.030	2.598	124.70	4.16	259.8	0.130	1.01E-03	3.27E-01
CO (8-hr std)	630080	5.196	0.030	5.196	124.70	4.16	259.8	0.130	1.01E-03	6.55E-01
NO_x (1-hr std)	10102440.1	8.546	0.049	4.273	205.10	6.84	427.3	0.214	1.66E-03	5.38E-01
NO_x (annual std)	10102440	8.546	0.049	8.546	205.10	6.84	427.3	0.214	1.66E-03	1.08E+00
PM_{10}	85101	0.299	0.002	0.299	7.18	0.24	15.0	0.008	5.81E-05	3.77E-02
$PM_{2.5}$	88101	0.297	0.002	0.297	7.13	0.24	14.9	0.007	5.77E-05	3.74E-02
VOC	43104	0.950	0.005	0.950	22.80	0.76	47.5	0.024	1.84E-04	1.20E-01
SO_x	7446095	0.008	0.000	0.008	0.19	0.01	0.4	0.000	1.55E-06	1.01E-03
Diesel Particulate Matter (DPM)	9901	0.299	0.002	0.299	7.18	0.24	15.0	0.008	5.81E-05	3.77E-02
Diesel Total Organic Gas (DTOG)	9902	1.043	0.006	1.043	25.03	0.83	52.2	0.026	2.03E-04	1.31E-01
CO_2	124389	918.0	5.24	918	22,033	734.43	45,902	20.82	—	—
CH_4	74828	0.037	0.000	0.037	0.89	0.03	1.85	0.00	—	—
N_2O	10024972	0.007	0.000	0.007	0.17	0.01	0.35	0.00	—	—
CO_2e	124389	921.2	5.26	921	22,108	736.95	46,059	20.89	—	—

Sources: 40 CFR 1039.101, 17 CCR 93115

Notes:

Assumes DPM = PM10; DTOG = VOC/0.91 (AP-42 Ch. 3.4)

Annual GHGs in units of MT/yr

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Diesel Emergency Generator Emissions Calculations- Gen 1

Select Row of Tiered Factors from Nonroad Tiers (CO, NO_X, PM, NMHC)			
Pollutant	**g/BHP-hr for BHP**	**BHP**	**lb/hr**
CO	2.610	903	5.196
NO_x	4.293	903	8.546
PM_{10}	0.150	903	0.299
$PM_{2.5}$ (99% of PM_{10})	0.149	903	0.297
VOC (NMHC)	0.477	903	0.950
SO_x	0.004	903	0.008
DPM	0.150	903	0.299
DTOG	0.524	903	1.043
CO_2	461.141	903	918.0
CH_4	0.019	903	0.037
N_2O	0.004	903	0.007
CO_2e	462.723	903	921.2

Ordered Format - Hourly

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
0.95	8.55	5.20	0.01	0.30	0.30	921

Ordered Format - Daily

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
22.80	205.10	124.70	0.19	7.18	7.13	22,108

Ordered Format - Annual

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	MT/yr
0.02	0.21	0.13	0.000	0.008	0.007	20.9

Table 3: Rules 404 & 409 Compliance Evaluation

Particulate Matter Emissions	Value	Units
Particulate Matter Concentration	0.0102	gr/dscf
Stack Flowrate, dry standard	3,055	dscf/min
Rule 404 Limit - Table 404(a)	0.1237	gr/dscf
Rule 404 Evaluation	**PASS**	
Rule 409 Limit	0.1000	gr/dscf
Rule 409 Evaluation	**PASS**	

Table 1: Criteria Pollutants Emissions Summary

Criteria	AHU (lb/hr)	AHC (lb/hr)	MHU (lb/hr)	MHC (lb/hr)	MDU (lb/day)	MDC (lb/day)	AA (lb/yr)	30DA (lb/day)
CO	0.030	0.030	5.196	5.196	124.70	124.70	259.8	4.16
NO_x	0.049	0.049	8.546	8.546	205.10	205.10	427.3	6.84
PM_{10}	0.002	0.002	0.299	0.299	7.18	7.18	15.0	0.24
$PM_{2.5}$	0.002	0.002	0.297	0.297	7.13	7.13	14.9	0.24
VOC	0.005	0.005	0.950	0.950	22.80	22.80	47.5	0.76
SO_x	0.0000	0.0000	0.008	0.008	0.19	0.19	0.4	0.01

Table 2: Toxic Air Contaminants Emissions Summary

Toxic Air Contaminants	CAS No.	MHU (lb/hr)	MHC (lb/hr)	MAC (lb/yr)
Diesel Particulate Matter (DPM)	9901	0.299	0.299	15.0
Diesel Total Organic Gas (DTOG)	9902	1.043	1.043	52.2

Diesel Emergency Generator Emissions Calculations- Gen 3

Operating Parameters	References/Remarks	Value	Units
Annual Throughput	ATCM (new ≤ 0.15 g/BHP-hr)	50	hrs/yr
Daily Throughput	PTE	24	hrs/day
Hourly Throughput	PTE	1.0	hrs/hr
	maintenance operation	0.5	hrs/hr
Monthly Schedule	PTE	1	days/mo

Constants	References/Remarks	Value	Units
Diesel Fuel HHV	40 CFR 98 Table C-1	138000	BTU/gal
Heat Rate	900REOZDE	6,584	BTU/BHP-hr
Standard Molar Volume	EPA Method 19 (68°F, 20°C)	385.3	dscf/lb-mole
Dry Fd Factor	EPA Method 19 (68°F, 20°C)	9190	dscf/mmBTU
Wet Fw Factor	EPA Method 19 (68°F, 20°C)	10320	wscf/mmBTU

Release Parameters	References/Remarks	Value	Units
Generator Rating	Client specified		kW
Electromechanical Conversion	Typical range is 80-95%		percent
*Annual Avg. Maintenance Load	900REOZDE	28.9%	percent
Engine Rating	900REOZDE	1354	BHP
Hourly Heat Input	Calculated for heat rate	8.91	mmBTU/hr
Stack Exit Temperature	900REOZDE	986	°F
Stack Exit Temperature	Calculated for modeling	803	°K
Stack Gas Oxygen Content	Standard	15.00	percent O_2
Stack Flowrate, wet standard	Calculated for percent O_2	5432	wscf/min
Stack Flowrate, actual	Calculated for stack temp	14875	wacf/min
Stack Flowrate, actual	Calculated for modeling	7.02	wacm/sec
Stack Height	900REOZDE	12.83	feet
Stack Height	Calculated for modeling	3.91	meters
Stack Diameter	900REOZDE	9.00	inches
Stack Diameter	Calculated for modeling	0.23	meters
Stack Velocity	Calculated for modeling	171.05	meters/sec
Stack Velocity	Informational	33671	feet/min

Diesel Emergency Generator Emissions Calculations- Gen 3

Criteria Pollutants, TACs, GHGs	CAS No.	Emission Factor	Average Hourly	Maximum Hourly	Maximum Daily	30-Day Average	Annual Total PTE		Annual Average*	Hourly Maximum
		lb/hr	lb/hr	lb/hr	lb/day	lb/day	lb/yr	tons/yr	g/sec	g/sec
CO (1-hr std)	630080.1	7.791	0.044	3.896	186.98	6.23	389.6	0.195	1.62E-03	4.91E-01
CO (8-hr std)	630080	7.791	0.044	7.791	186.98	6.23	389.6	0.195	1.62E-03	9.82E-01
NO_x (1-hr std)	10102440.1	12.815	0.073	6.408	307.56	10.25	640.8	0.320	2.66E-03	8.07E-01
NO_x (annual std)	10102440	12.815	0.073	12.815	307.56	10.25	640.8	0.320	2.66E-03	1.61E+00
PM_{10}	85101	0.448	0.003	0.448	10.75	0.36	22.4	0.011	9.31E-05	5.64E-02
$PM_{2.5}$	88101	0.445	0.003	0.445	10.68	0.36	22.3	0.011	9.25E-05	5.61E-02
VOC	43104	1.424	0.008	1.424	34.18	1.14	71.2	0.036	2.96E-04	1.79E-01
SO_x	7446095	0.015	0.000	0.015	0.36	0.01	0.8	0.000	3.12E-06	1.89E-03
Diesel Particulate Matter (DPM)	9901	0.448	0.003	0.448	10.75	0.36	22.4	0.011	9.31E-05	5.64E-02
Diesel Total Organic Gas (DTOG)	9902	1.564	0.009	1.564	37.54	1.25	78.2	0.039	3.25E-04	1.97E-01
CO_2	124389	1453.6	8.30	1,454	34,886	1162.87	72,680	32.97	—	—
CH_4	74828	0.059	0.000	0.059	1.42	0.05	2.95	0.00	—	—
N_2O	10024972	0.012	0.000	0.012	0.29	0.01	0.60	0.00	—	—
CO_2e	124389	1458.6	8.33	1,459	35,006	1166.86	72,929	33.08	—	—

Sources: 40 CFR 1039.101, 17 CCR 93115

Notes:

Assumes DPM = PM10; DTOG = VOC/0.91 (AP-42 Ch. 3.4)

Annual GHGs in units of MT/yr

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Diesel Emergency Generator Emissions Calculations- Gen 3

Select Row of Tiered Factors from Nonroad Tiers (CO, NO_X, PM, NMHC)			
Pollutant	**g/BHP-hr for BHP**	**BHP**	**lb/hr**
CO	2.610	1354	7.791
NO_x	4.293	1354	12.815
PM_{10}	0.150	1354	0.448
$PM_{2.5}$ (99% of PM_{10})	0.149	1354	0.445
VOC (NMHC)	0.477	1354	1.424
SO_x	0.005	1354	0.015
DPM	0.150	1354	0.448
DTOG	0.524	1354	1.564
CO_2	486.953	1354	1453.6
CH_4	0.020	1354	0.059
N_2O	0.004	1354	0.012
CO_2e	488.624	1354	1458.6

Ordered Format - Hourly

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
1.42	12.82	7.79	0.02	0.45	0.45	1,459

Ordered Format - Daily

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
34.18	307.56	186.98	0.36	10.75	10.68	35,006

Ordered Format - Annual

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	MT/yr
0.04	0.32	0.19	0.000	0.011	0.011	33.1

Table 3: Rules 404 & 409 Compliance Evaluation

Particulate Matter Emissions	Value	Units
Particulate Matter Concentration	0.0102	gr/dscf
Stack Flowrate, dry standard	4,837	dscf/min
Rule 404 Limit - Table 404(a)	0.1041	gr/dscf
Rule 404 Evaluation	**PASS**	
Rule 409 Limit	0.1000	gr/dscf
Rule 409 Evaluation	**PASS**	

Table 1: Criteria Pollutants Emissions Summary

Criteria	AHU (lb/hr)	AHC (lb/hr)	MHU (lb/hr)	MHC (lb/hr)	MDU (lb/day)	MDC (lb/day)	AA (lb/yr)	30DA (lb/day)
CO	0.044	0.044	7.791	7.791	186.98	186.98	389.6	6.23
NO_x	0.073	0.073	12.815	12.815	307.56	307.56	640.8	10.25
PM_{10}	0.003	0.003	0.448	0.448	10.75	10.75	22.4	0.36
$PM_{2.5}$	0.003	0.003	0.445	0.445	10.68	10.68	22.3	0.36
VOC	0.008	0.008	1.424	1.424	34.18	34.18	71.2	1.14
SO_x	0.0001	0.0001	0.015	0.015	0.36	0.36	0.8	0.01

Table 2: Toxic Air Contaminants Emissions Summary

Toxic Air Contaminants	CAS No.	MHU (lb/hr)	MHC (lb/hr)	MAC (lb/yr)
Diesel Particulate Matter (DPM)	9901	0.448	0.448	22.4
Diesel Total Organic Gas (DTOG)	9902	1.564	1.564	78.2

Diesel Emergency Generator Emissions Calculations- Gen 4

Operating Parameters	References/Remarks	Value	Units
Annual Throughput	ATCM (new ≤ 0.15 g/BHP-hr)	50	hrs/yr
Daily Throughput	PTE	24	hrs/day
Hourly Throughput	PTE	1.0	hrs/hr
	maintenance operation	0.5	hrs/hr
Monthly Schedule	PTE	1	days/mo

Constants	References/Remarks	Value	Units
Diesel Fuel HHV	40 CFR 98 Table C-1	138000	BTU/gal
Heat Rate	700REOZDE	6,742	BTU/BHP-hr
Standard Molar Volume	EPA Method 19 (68°F, 20°C)	385.3	dscf/lb-mole
Dry Fd Factor	EPA Method 19 (68°F, 20°C)	9190	dscf/mmBTU
Wet Fw Factor	EPA Method 19 (68°F, 20°C)	10320	wscf/mmBTU

Release Parameters	References/Remarks	Value	Units
Generator Rating	Client specified		kW
Electromechanical Conversion	Typical range is 80-95%		percent
*Annual Avg. Maintenance Load	700REOZDE	28.4%	percent
Engine Rating	700REOZDE	1046	BHP
Hourly Heat Input	Calculated for heat rate	7.05	mmBTU/hr
Stack Exit Temperature	700REOZDE	1022	°F
Stack Exit Temperature	Calculated for modeling	823	°K
Stack Gas Oxygen Content	Standard	15.00	percent O_2
Stack Flowrate, wet standard	Calculated for percent O_2	4297	wscf/min
Stack Flowrate, actual	Calculated for stack temp	12060	wacf/min
Stack Flowrate, actual	Calculated for modeling	5.69	wacm/sec
Stack Height	700REOZDE	12.83	feet
Stack Height	Calculated for modeling	3.91	meters
Stack Diameter	700REOZDE	8.00	inches
Stack Diameter	Calculated for modeling	0.20	meters
Stack Velocity	Calculated for modeling	175.51	meters/sec
Stack Velocity	Informational	34550	feet/min

Diesel Emergency Generator Emissions Calculations- Gen 4

Criteria Pollutants, TACs, GHGs	CAS No.	Emission Factor	Average Hourly	Maximum Hourly	Maximum Daily	30-Day Average	Annual Total PTE		Annual Average*	Hourly Maximum
		lb/hr	lb/hr	lb/hr	lb/day	lb/day	lb/yr	tons/yr	g/sec	g/sec
CO (1-hr std)	630080.1	6.019	0.034	3.010	144.46	4.82	301.0	0.151	1.23E-03	3.79E-01
CO (8-hr std)	630080	6.019	0.034	6.019	144.46	4.82	301.0	0.151	1.23E-03	7.58E-01
NO_x (1-hr std)	10102440.1	9.900	0.057	4.950	237.60	7.92	495.0	0.248	2.02E-03	6.24E-01
NO_x (annual std)	10102440	9.900	0.057	9.900	237.60	7.92	495.0	0.248	2.02E-03	1.25E+00
PM_{10}	85101	0.346	0.002	0.346	8.30	0.28	17.3	0.009	7.07E-05	4.36E-02
$PM_{2.5}$	88101	0.344	0.002	0.344	8.26	0.28	17.2	0.009	7.03E-05	4.33E-02
VOC	43104	1.100	0.006	1.100	26.40	0.88	55.0	0.028	2.25E-04	1.39E-01
SO_x	7446095	0.012	0.000	0.012	0.29	0.01	0.6	0.000	2.45E-06	1.51E-03
Diesel Particulate Matter (DPM)	9901	0.346	0.002	0.346	8.30	0.28	17.3	0.009	7.07E-05	4.36E-02
Diesel Total Organic Gas (DTOG)	9902	1.208	0.007	1.208	28.99	0.97	60.4	0.030	2.47E-04	1.52E-01
CO_2	124389	1149.9	6.56	1,150	27,597	919.91	57,494	26.08	—	—
CH_4	74828	0.047	0.000	0.047	1.13	0.04	2.35	0.00	—	—
N_2O	10024972	0.009	0.000	0.009	0.22	0.01	0.45	0.00	—	—
CO_2e	124389	1153.8	6.59	1,154	27,692	923.06	57,691	26.17	—	—

Sources: 40 CFR 1039.101, 17 CCR 93115

Notes:

Assumes DPM = PM10; DTOG = VOC/0.91 (AP-42 Ch. 3.4)

Annual GHGs in units of MT/yr

Yorke ENGINEERING, LLC
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Diesel Emergency Generator Emissions Calculations- Gen 4

Select Row of Tiered Factors from Nonroad Tiers (CO, NO_X, PM, NMHC)			
Pollutant	**g/BHP-hr for BHP**	**BHP**	**lb/hr**
CO	2.610	1046	6.019
NO_x	4.293	1046	9.900
PM_{10}	0.150	1046	0.346
$PM_{2.5}$ (99% of PM_{10})	0.149	1046	0.344
VOC (NMHC)	0.477	1046	1.100
SO_x	0.005	1046	0.012
DPM	0.150	1046	0.346
DTOG	0.524	1046	1.208
CO_2	498.638	1046	1149.9
CH_4	0.020	1046	0.047
N_2O	0.004	1046	0.009
CO_2e	500.349	1046	1153.8

Ordered Format - Hourly

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
1.10	9.90	6.02	0.01	0.35	0.34	1,154

Ordered Format - Daily

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
26.40	237.60	144.46	0.29	8.30	8.26	27,692

Ordered Format - Annual

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	MT/yr
0.03	0.25	0.15	0.000	0.009	0.009	26.2

Table 3: Rules 404 & 409 Compliance Evaluation

Particulate Matter Emissions	Value	Units
Particulate Matter Concentration	0.0102	gr/dscf
Stack Flowrate, dry standard	3,826	dscf/min
Rule 404 Limit - Table 404(a)	0.1137	gr/dscf
Rule 404 Evaluation	**PASS**	
Rule 409 Limit	0.1000	gr/dscf
Rule 409 Evaluation	**PASS**	

Table 1: Criteria Pollutants Emissions Summary

Criteria	AHU (lb/hr)	AHC (lb/hr)	MHU (lb/hr)	MHC (lb/hr)	MDU (lb/day)	MDC (lb/day)	AA (lb/yr)	30DA (lb/day)
CO	0.034	0.034	6.019	6.019	144.46	144.46	301.0	4.82
NO_x	0.057	0.057	9.900	9.900	237.60	237.60	495.0	7.92
PM_{10}	0.002	0.002	0.346	0.346	8.30	8.30	17.3	0.28
$PM_{2.5}$	0.002	0.002	0.344	0.344	8.26	8.26	17.2	0.28
VOC	0.006	0.006	1.100	1.100	26.40	26.40	55.0	0.88
SO_x	0.0001	0.0001	0.012	0.012	0.29	0.29	0.6	0.01

Table 2: Toxic Air Contaminants Emissions Summary

Toxic Air Contaminants	CAS No.	MHU (lb/hr)	MHC (lb/hr)	MAC (lb/yr)
Diesel Particulate Matter (DPM)	9901	0.346	0.346	17.3
Diesel Total Organic Gas (DTOG)	9902	1.208	1.208	60.4

Diesel Emergency Generator Emissions Calculations - Gen 5

Operating Parameters	References/Remarks	Value	Units
Annual Throughput	ATCM (new ≤ 0.15 g/BHP-hr)	50	hrs/yr
Daily Throughput	PTE	24	hrs/day
Hourly Throughput	PTE	1.0	hrs/hr
	maintenance operation	0.5	hrs/hr
Monthly Schedule	PTE	1	days/mo

Constants	References/Remarks	Value	Units
Diesel Fuel HHV	40 CFR 98 Table C-1	138000	BTU/gal
Heat Rate	500REOZJ	6,489	BTU/BHP-hr
Standard Molar Volume	EPA Method 19 (68°F, 20°C)	385.3	dscf/lb-mole
Dry Fd Factor	EPA Method 19 (68°F, 20°C)	9190	dscf/mmBTU
Wet Fw Factor	EPA Method 19 (68°F, 20°C)	10320	wscf/mmBTU

Release Parameters	References/Remarks	Value	Units
Generator Rating	Client specified		kW
Electromechanical Conversion	Typical range is 80-95%		percent
*Annual Avg. Maintenance Load	500REOZJ	28.7%	percent
Engine Rating	500REOZJ	755	BHP
Hourly Heat Input	Calculated for heat rate	4.90	mmBTU/hr
Stack Exit Temperature	500REOZJ	975	°F
Stack Exit Temperature	Calculated for modeling	797	°K
Stack Gas Oxygen Content	Standard	15.00	percent O_2
Stack Flowrate, wet standard	Calculated for percent O_2	2985	wscf/min
Stack Flowrate, actual	Calculated for stack temp	8113	wacf/min
Stack Flowrate, actual	Calculated for modeling	3.83	wacm/sec
Stack Height	500REOZJ	10.92	feet
Stack Height	Calculated for modeling	3.33	meters
Stack Diameter	500REOZJ	6.00	inches
Stack Diameter	Calculated for modeling	0.15	meters
Stack Velocity	Calculated for modeling	209.89	meters/sec
Stack Velocity	Informational	41318	feet/min

Diesel Emergency Generator Emissions Calculations - Gen 5

Criteria Pollutants, TACs, GHGs	CAS No.	Emission Factor	Average Hourly	Maximum Hourly	Maximum Daily	30-Day Average	Annual Total PTE		Annual Average*	Hourly Maximum
		lb/hr	lb/hr	lb/hr	lb/day	lb/day	lb/yr	tons/yr	g/sec	g/sec
CO (1-hr std)	630080.1	4.344	0.025	2.172	104.26	3.48	217.2	0.109	8.97E-04	2.74E-01
CO (8-hr std)	630080	4.344	0.025	4.344	104.26	3.48	217.2	0.109	8.97E-04	5.47E-01
NO_x (1-hr std)	10102440.1	7.146	0.041	3.573	171.50	5.72	357.3	0.179	1.47E-03	4.50E-01
NO_x (annual std)	10102440	7.146	0.041	7.146	171.50	5.72	357.3	0.179	1.47E-03	9.00E-01
PM_{10}	85101	0.250	0.001	0.250	6.00	0.20	12.5	0.006	5.16E-05	3.15E-02
$PM_{2.5}$	88101	0.248	0.001	0.248	5.95	0.20	12.4	0.006	5.12E-05	3.12E-02
VOC	43104	0.794	0.005	0.794	19.06	0.64	39.7	0.020	1.64E-04	1.00E-01
SO_x	7446095	0.008	0.000	0.008	0.19	0.01	0.4	0.000	1.65E-06	1.01E-03
Diesel Particulate Matter (DPM)	9901	0.250	0.001	0.250	6.00	0.20	12.5	0.006	5.16E-05	3.15E-02
Diesel Total Organic Gas (DTOG)	9902	0.872	0.005	0.872	20.93	0.70	43.6	0.022	1.80E-04	1.10E-01
CO_2	124389	798.8	4.56	799	19,172	639.07	39,942	18.12	—	—
CH_4	74828	0.032	0.000	0.032	0.77	0.03	1.60	0.00	—	—
N_2O	10024972	0.006	0.000	0.006	0.14	0.00	0.30	0.00	—	—
CO_2e	124389	801.6	4.58	802	19,238	641.26	40,079	18.18	—	—

Sources: 40 CFR 1039.101, 17 CCR 93115

Notes:

Assumes DPM = PM10; DTOG = VOC/0.91 (AP-42 Ch. 3.4)

Annual GHGs in units of MT/yr

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Diesel Emergency Generator Emissions Calculations - Gen 5

Select Row of Tiered Factors from Nonroad Tiers (CO, NO_X, PM, NMHC)			
Pollutant	**g/BHP-hr for BHP**	**BHP**	**lb/hr**
CO	2.610	755	4.344
NO_x	4.293	755	7.146
PM_{10}	0.150	755	0.250
$PM_{2.5}$ (99% of PM_{10})	0.149	755	0.248
VOC (NMHC)	0.477	755	0.794
SO_x	0.005	755	0.008
DPM	0.150	755	0.250
DTOG	0.524	755	0.872
CO_2	479.926	755	798.8
CH_4	0.019	755	0.032
N_2O	0.004	755	0.006
CO_2e	481.573	755	801.6

Ordered Format - Hourly

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
0.79	7.15	4.34	0.01	0.25	0.25	802

Ordered Format - Daily

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
19.06	171.50	104.26	0.19	6.00	5.95	19,238

Ordered Format - Annual

ROG	NO_x	CO	SO_X	PM_{10}	$PM_{2.5}$	CO_2e
tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	MT/yr
0.02	0.18	0.11	0.000	0.006	0.006	18.2

Table 3: Rules 404 & 409 Compliance Evaluation

Particulate Matter Emissions	Value	Units
Particulate Matter Concentration	0.0102	gr/dscf
Stack Flowrate, dry standard	2,658	dscf/min
Rule 404 Limit - Table 404(a)	0.1303	gr/dscf
Rule 404 Evaluation	**PASS**	
Rule 409 Limit	0.1000	gr/dscf
Rule 409 Evaluation	**PASS**	

Table 1: Criteria Pollutants Emissions Summary

Criteria	AHU (lb/hr)	AHC (lb/hr)	MHU (lb/hr)	MHC (lb/hr)	MDU (lb/day)	MDC (lb/day)	AA (lb/yr)	30DA (lb/day)
CO	0.025	0.025	4.344	4.344	104.26	104.26	217.2	3.48
NO_x	0.041	0.041	7.146	7.146	171.50	171.50	357.3	5.72
PM_{10}	0.001	0.001	0.250	0.250	6.00	6.00	12.5	0.20
$PM_{2.5}$	0.001	0.001	0.248	0.248	5.95	5.95	12.4	0.20
VOC	0.005	0.005	0.794	0.794	19.06	19.06	39.7	0.64
SO_x	0.0000	0.0000	0.008	0.008	0.19	0.19	0.4	0.01

Table 2: Toxic Air Contaminants Emissions Summary

Toxic Air Contaminants	CAS No.	MHU (lb/hr)	MHC (lb/hr)	MAC (lb/yr)
Diesel Particulate Matter (DPM)	9901	0.250	0.250	12.5
Diesel Total Organic Gas (DTOG)	9902	0.872	0.872	43.6

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Paint Booth Criteria Emissions

Permit Unit	CAS No.	Emittents	AHU (lbs/hr)	AHC (lbs/hr)	MHU (lbs/hr)	MHC (lbs/hr)	MDU (lbs/day)	MDC (lbs/day)	AA (lbs/yr)	30DA (lbs/day)
	43104	Volatile Organic Compounds (VOC)	0.18	0.18	1.96	1.96	7.84	7.84	1567.87	4.36
	85101	Particulate Matter 10 Microns or Less	1.04	0.04	11.40	0.40	45.59	1.60	319.15	0.89

TAC Emissions

Permit Unit	CAS No.	Emittents	MHU (lbs/hr)	MHC (lbs/hr)	MAC (lbs/yr)
	1330207	Xylene	0.33	0.33	261.5
	100414	Ethylbenzene	0.09	0.09	70.8
	108656	2-methoxy-1-methylethyl acetate	0.07	0.07	53.3
	822060	Hexamethylene diisocyanate	0.00	0.00	1.4
	95636	1,2,4-trimethylbenzene	0.07	0.07	56.3
	108952	Phenol	0.01	0.01	8.8

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Process Mass Balance - Amershield Resin (Part A)

Permit Unit	CAS No.	Emittents	Type	Mixture Specification SDS Content				Uncontrolled Rates			Controlled Rates			An. Avg.	Hr. Max.
				Wt. %	sp gr	g/l	lb/gal	lb/hr	lb/day	lb/yr	lb/hr	lb/day	lb/yr	g/sec	g/sec
	123864	n-butyl acetate	VOC	15.00%	1.42	213.0	1.776	0.999	4.00	799.4	0.999	4.00	799.4	---	---
	119642	1,2,3,4-tetrahydronaphthalene	VOC	0.10%	1.42	1.4	0.012	0.007	0.03	5.3	0.007	0.03	5.3	---	---
	1330207	Xylene	VOC TAC	2.50%	1.42	35.5	0.296	0.167	0.67	133.2	0.167	0.67	133.2	1.92E-03	2.10E-02
	100414	Ethylbenzene	VOC TAC	1.00%	1.42	14.2	0.118	0.067	0.27	53.3	0.067	0.27	53.3	7.67E-04	8.39E-03
	108656	2-methoxy-1-methylethyl acetate	VOC TAC	1.00%	1.42	14.2	0.118	0.067	0.27	53.3	0.067	0.27	53.3	7.67E-04	8.39E-03
	41556267	Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	Inert	0.25%	1.42	3.6	0.030	0.017	0.07	13.3	0.017	0.07	13.3	---	---
	82919377	Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Inert	0.10%	1.42	1.4	0.012	0.007	0.03	5.3	0.007	0.03	5.3	---	---
	43104	Volatile Organic Compounds (VOC)	VOC	19.60%	1.42	**278.3**	2.321	1.306	5.22	1,044.5	1.306	5.22	1,044.5	---	---
	85101	Other (as max solids for PM LST)	PM LST	80.05%	1.42	1136.7	9.480	5.333	21.33	4,266.1	0.187	0.75	149.3	2.15E-03	2.35E-02

Operating Schedule			Material Usage			PM TE	PM CE	PM TCE	VOC CE	TACs
hrs/day	days/mo	mos/yr	gal/hr	gal/day	gal/yr	percent	percent	percent	percent	g/sec
4	16.67	12	0.563	2.25	450	65.0%	90.0%	96.5%	0.0%	3.78E-02

Criteria Emissions

Permit Unit	CAS No.	Emittents	AHU (lbs/hr)	AHC (lbs/hr)	MHU (lbs/hr)	MHC (lbs/hr)	MDU (lbs/day)	MDC (lbs/day)	AA (lbs/yr)	30DA (lbs/day)
	43104	Volatile Organic Compounds (VOC)	0.12	0.12	1.31	1.31	5.22	5.22	1044.53	2.90
	85101	Particulate Matter 10 Microns or Less	0.49	0.02	5.33	0.19	21.33	0.75	149.31	0.41

TAC Emissions

Permit Unit	CAS No.	Emittents	MHU (lbs/hr)	MHC (lbs/hr)	MAC (lbs/yr)
	1330207	Xylene	0.167	0.167	133.23
	100414	Ethylbenzene	0.067	0.067	53.29
	108656	2-methoxy-1-methylethyl acetate	0.067	0.067	53.29

Part A + Part B Mix (3:1)

Part	Fraction	Part, g/l	Mix, g/l	lb/gal
Resin A	75%	278.3	208.7	1.74
Hardener B	25%	57.6	14.4	0.12
Applied A+B	**100%**	Rule 1151(d)(1) Any Other Coating Type (250 g/l)	**223.1**	**1.86**

Paint Solids Ranges

Paint Type	Volume Solids
Sealers	10-25%
Architectural Paints **	35-45%
Industrial Enamels	25-45%
2K Epoxies	40-80%
2K Polyurethanes	30-45%

Source: http://carbit.com/understanding-volume-solids/

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Process Mass Balance - Amershield Hardener (Part B)

Permit Unit	CAS No.	Emittents	Type	Mixture Specification SDS Content				Uncontrolled Rates			Controlled Rates			An. Avg.	Hr. Max.
				Wt. %	sp gr	g/l	lb/gal	lb/hr	lb/day	lb/yr	lb/hr	lb/day	lb/yr	g/sec	g/sec
	123864	n-butyl acetate	VOC	2.50%	1.13	28.3	0.236	0.044	0.18	35.3	0.044	0.18	35.3	---	---
	64742956	Naphtha	VOC	2.50%	1.13	28.3	0.236	0.044	0.18	35.3	0.044	0.18	35.3	---	---
	822060	Hexamethylene diisocyanate	VOC TAC	0.10%	1.13	1.1	0.009	0.002	0.01	1.4	0.002	0.01	1.4	2.03E-05	2.23E-04
	28182812	Isocyanic acid hexamethylene ester polymers	Inert	94.90%	1.13	1072.4	8.944	1.677	6.71	1,341.5	1.677	6.71	1,341.5	---	---
	43104	Volatile Organic Compounds (VOC)	VOC	5.10%	1.13	**57.6**	0.481	0.090	0.36	72.1	0.090	0.36	72.1	---	---
	85101	Other (as max solids for PM LST)	PM LST	0.00%	1.13	0.0	0.000	0.000	0.00	0.0	0.000	0.00	0.0	0.00E+00	0.00E+00

Operating Schedule			Material Usage			PM TE	PM CE	PM TCE	VOC CE	TACs
hrs/day	days/mo	mos/yr	gal/hr	gal/day	gal/yr	percent	percent	percent	percent	g/sec
4	16.67	12	0.188	0.75	150	65.0%	90.0%	96.5%	0.0%	2.23E-04

Criteria Emissions

Permit Unit	CAS No.	Emittents	AHU (lbs/hr)	AHC (lbs/hr)	MHU (lbs/hr)	MHC (lbs/hr)	MDU (lbs/day)	MDC (lbs/day)	AA (lbs/yr)	30DA (lbs/day)
	43104	Volatile Organic Compounds (VOC)	0.01	0.01	0.09	0.09	0.36	0.36	72.10	0.20
	85101	Particulate Matter 10 Microns or Less	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TAC Emissions

Permit Unit	CAS No.	Emittents	MHU (lbs/hr)	MHC (lbs/hr)	MAC (lbs/yr)
	822060	Hexamethylene diisocyanate	0.002	0.002	1.41

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Process Mass Balance - Amerlock Resin (Part A)

Permit Unit	CAS No.	Emittents	Type	Mixture Specification SDS Content				Uncontrolled Rates			Controlled Rates			An. Avg.	Hr. Max.
				Wt. %	sp gr	g/l	lb/gal	lb/hr	lb/day	lb/yr	lb/hr	lb/day	lb/yr	g/sec	g/sec
	68515491	1,2-Benzenedicarboxylic_acid_branched_alkyl_esters	VOC	1.00%	1.50	15.0	0.125	0.070	0.28	56.3	0.070	0.28	56.3	---	---
	64742956	Naphtha	VOC	1.00%	1.50	15.0	0.125	0.070	0.28	56.3	0.070	0.28	56.3	---	---
	95636	1,2,4-trimethylbenzene	VOC TAC	1.00%	1.50	15.0	0.125	0.070	0.28	56.3	0.070	0.28	56.3	8.10E-04	8.87E-03
	1330207	Xylene	VOC TAC	0.10%	1.50	1.5	0.013	0.007	0.03	5.6	0.007	0.03	5.6	8.10E-05	8.87E-04
	25068386	Epoxy resin	Inert	36.90%	1.50	553.5	4.616	2.597	10.39	2,077.3	2.597	10.39	2,077.3	---	---
	43104	Volatile Organic Compounds (VOC)	VOC	3.10%	1.500	**46.5**	0.388	0.218	0.87	174.5	0.218	0.87	174.5	---	---
	85101	Other (as max solids for PM LST)	PM LST	60.00%	1.500	900.0	7.506	4.222	16.89	3,377.7	0.148	0.59	118.2	1.70E-03	1.86E-02

Operating Schedule			Material Usage			PM TE	PM CE	PM TCE	VOC CE	TACs
hrs/day	days/mo	mos/yr	gal/hr	gal/day	gal/yr	percent	percent	percent	percent	g/sec
4	16.67	12	0.563	2.25	450	65.0%	90.0%	96.5%	0.0%	9.75E-03

Criteria Emissions

Permit Unit	CAS No.	Emittents	AHU (lbs/hr)	AHC (lbs/hr)	MHU (lbs/hr)	MHC (lbs/hr)	MDU (lbs/day)	MDC (lbs/day)	AA (lbs/yr)	30DA (lbs/day)
	43104	Volatile Organic Compounds (VOC)	0.02	0.02	0.22	0.22	0.87	0.87	174.51	0.48
	85101	Particulate Matter 10 Microns or Less	0.39	0.01	4.22	0.15	16.89	0.59	118.22	0.33

TAC Emissions

Permit Unit	CAS No.	Emittents	MHU (lbs/hr)	MHC (lbs/hr)	MAC (lbs/yr)
	95636	1,2,4-trimethylbenzene	0.070	0.070	56.3
	1330207	Xylene	0.007	0.007	5.6

Part A + Part B Mix (3:1)

Part	Fraction	Part, g/l	Mix, g/l	lb/gal
Resin A	75%	46.5	34.9	0.29
Hardener B	25%	221.2	55.3	0.46
Applied A+B	**100%**	Rule 1151(d)(1) Any Other Coating Type (250 g/l)	**90.2**	**0.75**

Paint Solids Ranges

Paint Type	Volume Solids
Sealers	10-25%
Architectural Paints **	35-45%
Industrial Enamels	25-45%
2K Epoxies	40-80%
2K Polyurethanes	30-45%

Source: http://carbit.com/understanding-volume-solids/

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Process Mass Balance - Amerlock Hardener (Part B)

Permit Unit	CAS No.	Emittents	Type	Mixture Specification SDS Content				Uncontrolled Rates			Controlled Rates			An. Avg.	Hr. Max.
				Wt. %	sp gr	g/l	lb/gal	lb/hr	lb/day	lb/yr	lb/hr	lb/day	lb/yr	g/sec	g/sec
	84852153	4-nonylphenol	VOC	5.00%	1.40	70.0	0.584	0.109	0.44	87.6	0.109	0.44	87.6	---	---
	68515491	1,2-Benzenedicarboxylic_acid_branched_alkyl_esters	VOC	1.00%	1.40	14.0	0.117	0.022	0.09	17.5	0.022	0.09	17.5	---	---
	100516	Benzyl_alcohol	VOC	1.00%	1.40	14.0	0.117	0.022	0.09	17.5	0.022	0.09	17.5	---	---
	1330207	Xylene	VOC TAC	7.00%	1.40	98.0	0.817	0.153	0.61	122.6	0.153	0.61	122.6	1.76E-03	1.93E-02
	100414	Ethylbenzene	VOC TAC	1.00%	1.40	14.0	0.117	0.022	0.09	17.5	0.022	0.09	17.5	2.52E-04	2.76E-03
	108952	Phenol	VOC TAC	0.50%	1.40	7.0	0.058	0.011	0.04	8.8	0.011	0.04	8.8	1.26E-04	1.38E-03
	64175	Ethanol	VOC	0.10%	1.40	1.4	0.012	0.002	0.01	1.8	0.002	0.01	1.8	---	---
	112243	3,6-diazaoctanethylenediamin	VOC	0.10%	1.40	1.4	0.012	0.002	0.01	1.8	0.002	0.01	1.8	---	---
	91672412	Phenol_2-nonyl_branched	VOC	0.10%	1.40	1.4	0.012	0.002	0.01	1.8	0.002	0.01	1.8	---	---
	43104	Volatile Organic Compounds (VOC)	VOC	15.80%	1.40	**221.2**	1.845	0.346	1.38	276.7	0.346	1.38	276.7	---	---
	85101	Other (as max solids for PM LST)	PM LST	84.20%	1.40	1178.8	9.831	1.843	7.37	1,474.7	0.065	0.26	51.6	7.42E-04	8.13E-03

Operating Schedule			Material Usage			PM TE	PM CE	PM TCE	VOC CE	TACs
hrs/day	days/mo	mos/yr	gal/hr	gal/day	gal/yr	percent	percent	percent	percent	g/sec
4	16.67	12	0.188	0.75	150	65.0%	90.0%	96.5%	0.0%	2.34E-02

Criteria Emissions

Permit Unit	CAS No.	Emittents	AHU (lbs/hr)	AHC (lbs/hr)	MHU (lbs/hr)	MHC (lbs/hr)	MDU (lbs/day)	MDC (lbs/day)	AA (lbs/yr)	30DA (lbs/day)
	43104	Volatile Organic Compounds (VOC)	0.03	0.03	0.35	0.35	1.38	1.38	276.72	0.77
	85101	Particulate Matter 10 Microns or Less	0.17	0.01	1.84	0.06	7.37	0.26	51.61	0.14

TAC Emissions

Permit Unit	CAS No.	Emittents	MHU (lbs/hr)	MHC (lbs/hr)	MAC (lbs/yr)
	1330207	Xylene	0.153	0.153	122.6
	100414	Ethylbenzene	0.022	0.022	17.5
	108952	Phenol	0.011	0.011	8.8

APPENDIX B – AERMOD INPUT PARAMETERS

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 5/8/2019
** File: C:\Lakes\AERMOD View\MidValley_Updated\MidValley_Updated.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
  TITLEONE C:\Lakes\AERMOD View\MidValley_Updated\MidValley_Updated.isc
  TITLETWO LADWP Mid Valley Updated HRA
  MODELOPT DFAULT CONC
  AVERTIME 1 PERIOD
  URBANOPT 9818605 Los_Angeles
  POLLUTID OTHER
  RUNORNOT RUN
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
  LOCATION COATPNT     POINT     367179.888  3786257.096     235.310
** DESCRSRC Paint Booth - Coating Shop
  LOCATION GEN1        POINT     366992.032  3786417.874     235.250
** DESCRSRC Gen 1 - Supply Chain
  LOCATION GEN3        POINT     367217.256  3786256.660     235.280
** DESCRSRC Gen 3 - Weld Shop
  LOCATION GEN4        POINT     367001.324  3786292.331     234.660
** DESCRSRC Gen 4 - Meter Yard
  LOCATION GEN5        POINT     367097.762  3786334.592     235.060
** DESCRSRC Gen 5 - Parking
** ----------------------------------------------------------------
** Line Source Represented by Separated Volume Sources (2W)
** LINE VOLUME Source ID = SLINE1
```

** DESCRSRC Truck Traffic
** PREFIX
** Length of Side = 9.00
** Configuration = Separated 2W
** Emission Rate = 1.0
** Vertical Dimension = 5.10
** SZINIT = 2.37
** Nodes = 9
** 366536.304, 3786223.101, 233.77, 2.55, 8.37
** 366610.885, 3786220.939, 234.02, 2.55, 8.37
** 366609.804, 3786354.970, 234.86, 2.55, 8.37
** 366783.828, 3786351.727, 234.63, 2.55, 8.37
** 366791.394, 3786363.617, 234.67, 2.55, 8.37
** 366941.638, 3786362.536, 234.76, 2.55, 8.37
** 367012.977, 3786361.455, 235.06, 2.55, 8.37
** 367331.841, 3786285.793, 233.98, 2.55, 8.37
** 367334.002, 3786234.991, 234.36, 2.55, 8.37
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LOCATION L0000001 VOLUME 366540.802 3786222.970 233.79
LOCATION L0000002 VOLUME 366558.794 3786222.449 233.75
LOCATION L0000003 VOLUME 366576.787 3786221.927 233.81
LOCATION L0000004 VOLUME 366594.779 3786221.406 233.91
LOCATION L0000005 VOLUME 366610.870 3786222.826 234.05
LOCATION L0000006 VOLUME 366610.725 3786240.825 234.16
LOCATION L0000007 VOLUME 366610.580 3786258.825 234.33
LOCATION L0000008 VOLUME 366610.434 3786276.824 234.56
LOCATION L0000009 VOLUME 366610.289 3786294.824 234.58
LOCATION L0000010 VOLUME 366610.144 3786312.823 234.56
LOCATION L0000011 VOLUME 366609.999 3786330.823 234.67
LOCATION L0000012 VOLUME 366609.854 3786348.822 234.78
LOCATION L0000013 VOLUME 366621.654 3786354.749 235.02
LOCATION L0000014 VOLUME 366639.651 3786354.414 235.40
LOCATION L0000015 VOLUME 366657.648 3786354.078 235.44
LOCATION L0000016 VOLUME 366675.645 3786353.743 235.44
LOCATION L0000017 VOLUME 366693.642 3786353.408 235.41
LOCATION L0000018 VOLUME 366711.639 3786353.072 235.38
LOCATION L0000019 VOLUME 366729.636 3786352.737 235.21
LOCATION L0000020 VOLUME 366747.632 3786352.401 235.02
LOCATION L0000021 VOLUME 366765.629 3786352.066 234.85
LOCATION L0000022 VOLUME 366783.626 3786351.731 234.65
LOCATION L0000023 VOLUME 366795.099 3786363.590 234.67
LOCATION L0000024 VOLUME 366813.099 3786363.461 234.93
LOCATION L0000025 VOLUME 366831.098 3786363.331 235.01
LOCATION L0000026 VOLUME 366849.098 3786363.202 234.99
LOCATION L0000027 VOLUME 366867.097 3786363.072 234.88
LOCATION L0000028 VOLUME 366885.097 3786362.943 234.78
LOCATION L0000029 VOLUME 366903.096 3786362.813 234.65
LOCATION L0000030 VOLUME 366921.096 3786362.684 234.51

LOCATION L0000031 VOLUME 366939.095 3786362.554 234.69
LOCATION L0000032 VOLUME 366957.094 3786362.302 234.85
LOCATION L0000033 VOLUME 366975.092 3786362.029 234.98
LOCATION L0000034 VOLUME 366993.089 3786361.756 235.03
LOCATION L0000035 VOLUME 367011.087 3786361.484 235.05
LOCATION L0000036 VOLUME 367028.652 3786357.736 235.09
LOCATION L0000037 VOLUME 367046.166 3786353.580 235.09
LOCATION L0000038 VOLUME 367063.679 3786349.424 235.10
LOCATION L0000039 VOLUME 367081.193 3786345.268 235.10
LOCATION L0000040 VOLUME 367098.707 3786341.112 235.13
LOCATION L0000041 VOLUME 367116.220 3786336.957 235.22
LOCATION L0000042 VOLUME 367133.734 3786332.801 235.39
LOCATION L0000043 VOLUME 367151.248 3786328.645 235.58
LOCATION L0000044 VOLUME 367168.761 3786324.489 235.76
LOCATION L0000045 VOLUME 367186.275 3786320.334 235.84
LOCATION L0000046 VOLUME 367203.789 3786316.178 235.84
LOCATION L0000047 VOLUME 367221.303 3786312.022 235.74
LOCATION L0000048 VOLUME 367238.816 3786307.866 235.61
LOCATION L0000049 VOLUME 367256.330 3786303.710 235.52
LOCATION L0000050 VOLUME 367273.844 3786299.555 235.39
LOCATION L0000051 VOLUME 367291.357 3786295.399 235.27
LOCATION L0000052 VOLUME 367308.871 3786291.243 234.92
LOCATION L0000053 VOLUME 367326.385 3786287.087 234.05
LOCATION L0000054 VOLUME 367332.367 3786273.411 233.34
LOCATION L0000055 VOLUME 367333.133 3786255.427 233.78
LOCATION L0000056 VOLUME 367333.898 3786237.444 234.31
** End of LINE VOLUME Source ID = SLINE1
** ----------
** Line Source Represented by Separated Volume Sources (2W)
** LINE VOLUME Source ID = SLINE2
** DESCRSRC Forklifts
** PREFIX
** Length of Side = 8.00
** Configuration = Separated 2W
** Emission Rate = 1.0
** Vertical Dimension = 3.40
** SZINIT = 1.58
** Nodes = 11
** 366992.139, 3786290.652, 234.49, 1.70, 7.44
** 367258.392, 3786285.411, 235.46, 1.70, 7.44
** 367270.447, 3786283.315, 235.44, 1.70, 7.44
** 367268.875, 3786337.299, 235.28, 1.70, 7.44
** 367127.886, 3786357.216, 235.38, 1.70, 7.44
** 367120.025, 3786336.775, 235.28, 1.70, 7.44
** 367016.773, 3786355.643, 235.07, 1.70, 7.44
** 366932.914, 3786355.119, 234.65, 1.70, 7.44
** 366931.866, 3786308.997, 234.42, 1.70, 7.44
** 366941.300, 3786301.659, 234.41, 1.70, 7.44

** 366993.188, 3786290.128, 234.49, 1.70, 7.44
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  LOCATION L0000514    VOLUME   367044.129 3786289.629 235.08
  LOCATION L0000515    VOLUME   367060.126 3786289.314 235.00
  LOCATION L0000516    VOLUME   367076.123 3786288.999 234.88
  LOCATION L0000517    VOLUME   367092.120 3786288.684 234.69
  LOCATION L0000518    VOLUME   367108.117 3786288.369 234.76
  LOCATION L0000519    VOLUME   367124.114 3786288.054 234.96
  LOCATION L0000520    VOLUME   367140.111 3786287.740 235.20
  LOCATION L0000521    VOLUME   367156.108 3786287.425 235.41
  LOCATION L0000522    VOLUME   367172.105 3786287.110 235.57
  LOCATION L0000523    VOLUME   367188.101 3786286.795 235.62
  LOCATION L0000524    VOLUME   367204.098 3786286.480 235.63
  LOCATION L0000525    VOLUME   367220.095 3786286.165 235.57
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  LOCATION L0000527    VOLUME   367252.089 3786285.535 235.49
  LOCATION L0000528    VOLUME   367267.944 3786283.750 235.38
  LOCATION L0000529    VOLUME   367270.055 3786296.769 235.41
  LOCATION L0000530    VOLUME   367269.589 3786312.762 235.37
  LOCATION L0000531    VOLUME   367269.123 3786328.755 235.27
  LOCATION L0000532    VOLUME   367261.495 3786338.341 235.33
  LOCATION L0000533    VOLUME   367245.653 3786340.579 235.46
  LOCATION L0000534    VOLUME   367229.810 3786342.817 235.76
  LOCATION L0000535    VOLUME   367213.967 3786345.056 235.91
  LOCATION L0000536    VOLUME   367198.124 3786347.294 235.99
  LOCATION L0000537    VOLUME   367182.282 3786349.532 235.96
  LOCATION L0000538    VOLUME   367166.439 3786351.770 235.90
  LOCATION L0000539    VOLUME   367150.596 3786354.008 235.82
  LOCATION L0000540    VOLUME   367134.754 3786356.246 235.50
  LOCATION L0000541    VOLUME   367124.632 3786348.755 235.28
  LOCATION L0000542    VOLUME   367116.912 3786337.344 235.23
  LOCATION L0000543    VOLUME   367101.173 3786340.220 235.14
  LOCATION L0000544    VOLUME   367085.433 3786343.096 235.09
  LOCATION L0000545    VOLUME   367069.694 3786345.972 235.06
  LOCATION L0000546    VOLUME   367053.955 3786348.849 235.07
  LOCATION L0000547    VOLUME   367038.215 3786351.725 235.07
  LOCATION L0000548    VOLUME   367022.476 3786354.601 235.07
  LOCATION L0000549    VOLUME   367006.570 3786355.579 235.08
  LOCATION L0000550    VOLUME   366990.571 3786355.479 235.07
  LOCATION L0000551    VOLUME   366974.571 3786355.379 235.03
  LOCATION L0000552    VOLUME   366958.571 3786355.279 234.88
  LOCATION L0000553    VOLUME   366942.572 3786355.179 234.70
  LOCATION L0000554    VOLUME   366932.770 3786348.779 234.63
  LOCATION L0000555    VOLUME   366932.406 3786332.783 234.59
  LOCATION L0000556    VOLUME   366932.043 3786316.787 234.48
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  LOCATION L0000557    VOLUME   366938.344 3786303.958 234.39
  LOCATION L0000558    VOLUME   366953.264 3786299.000 234.46
  LOCATION L0000559    VOLUME   366968.883 3786295.529 234.62
  LOCATION L0000560    VOLUME   366984.502 3786292.058 234.56
** End of LINE VOLUME Source ID = SLINE2
** Source Parameters **
  SRCPARAM COATPNT        1.0   16.764   294.111  12.41867    0.762
  SRCPARAM GEN1           1.0    3.480   734.271  98.76333    0.229
  SRCPARAM GEN3           1.0    3.912   803.160  96.21424    0.305
  SRCPARAM GEN4           1.0    3.912   823.160  96.30442    0.274
  SRCPARAM GEN5           1.0    3.327   797.049  93.28605    0.229
** LINE VOLUME Source ID = SLINE1
  SRCPARAM L0000001    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000002    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000003    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000004    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000005    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000006    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000007    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000008    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000009    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000010    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000011    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000012    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000013    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000014    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000015    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000016    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000017    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000018    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000019    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000020    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000021    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000022    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000023    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000024    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000025    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000026    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000027    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000028    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000029    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000030    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000031    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000032    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000033    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000034    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000035    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000036    0.0178571429    2.55    8.37    2.37
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  SRCPARAM L0000037    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000038    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000039    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000040    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000041    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000042    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000043    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000044    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000045    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000046    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000047    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000048    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000049    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000050    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000051    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000052    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000053    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000054    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000055    0.0178571429    2.55    8.37    2.37
  SRCPARAM L0000056    0.0178571429    2.55    8.37    2.37
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE2
  SRCPARAM L0000511        0.02    1.70    7.44    1.58
  SRCPARAM L0000512        0.02    1.70    7.44    1.58
  SRCPARAM L0000513        0.02    1.70    7.44    1.58
  SRCPARAM L0000514        0.02    1.70    7.44    1.58
  SRCPARAM L0000515        0.02    1.70    7.44    1.58
  SRCPARAM L0000516        0.02    1.70    7.44    1.58
  SRCPARAM L0000517        0.02    1.70    7.44    1.58
  SRCPARAM L0000518        0.02    1.70    7.44    1.58
  SRCPARAM L0000519        0.02    1.70    7.44    1.58
  SRCPARAM L0000520        0.02    1.70    7.44    1.58
  SRCPARAM L0000521        0.02    1.70    7.44    1.58
  SRCPARAM L0000522        0.02    1.70    7.44    1.58
  SRCPARAM L0000523        0.02    1.70    7.44    1.58
  SRCPARAM L0000524        0.02    1.70    7.44    1.58
  SRCPARAM L0000525        0.02    1.70    7.44    1.58
  SRCPARAM L0000526        0.02    1.70    7.44    1.58
  SRCPARAM L0000527        0.02    1.70    7.44    1.58
  SRCPARAM L0000528        0.02    1.70    7.44    1.58
  SRCPARAM L0000529        0.02    1.70    7.44    1.58
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  SRCPARAM L0000531        0.02    1.70    7.44    1.58
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  SRCPARAM L0000533        0.02    1.70    7.44    1.58
  SRCPARAM L0000534        0.02    1.70    7.44    1.58
  SRCPARAM L0000535        0.02    1.70    7.44    1.58
  SRCPARAM L0000536        0.02    1.70    7.44    1.58
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  SRCPARAM L0000538       0.02    1.70    7.44    1.58
  SRCPARAM L0000539       0.02    1.70    7.44    1.58
  SRCPARAM L0000540       0.02    1.70    7.44    1.58
  SRCPARAM L0000541       0.02    1.70    7.44    1.58
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  SRCPARAM L0000543       0.02    1.70    7.44    1.58
  SRCPARAM L0000544       0.02    1.70    7.44    1.58
  SRCPARAM L0000545       0.02    1.70    7.44    1.58
  SRCPARAM L0000546       0.02    1.70    7.44    1.58
  SRCPARAM L0000547       0.02    1.70    7.44    1.58
  SRCPARAM L0000548       0.02    1.70    7.44    1.58
  SRCPARAM L0000549       0.02    1.70    7.44    1.58
  SRCPARAM L0000550       0.02    1.70    7.44    1.58
  SRCPARAM L0000551       0.02    1.70    7.44    1.58
  SRCPARAM L0000552       0.02    1.70    7.44    1.58
  SRCPARAM L0000553       0.02    1.70    7.44    1.58
  SRCPARAM L0000554       0.02    1.70    7.44    1.58
  SRCPARAM L0000555       0.02    1.70    7.44    1.58
  SRCPARAM L0000556       0.02    1.70    7.44    1.58
  SRCPARAM L0000557       0.02    1.70    7.44    1.58
  SRCPARAM L0000558       0.02    1.70    7.44    1.58
  SRCPARAM L0000559       0.02    1.70    7.44    1.58
  SRCPARAM L0000560       0.02    1.70    7.44    1.58
** ------------------------------------------------------------------

** Building Downwash **
  BUILDHGT COATPNT      12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT COATPNT      12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT COATPNT      12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT COATPNT      12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT COATPNT      12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT COATPNT      12.19   12.19   12.19   12.19   12.19   12.19

  BUILDHGT GEN1         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN1         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN1         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN1         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN1         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN1         12.19   12.19   12.19   12.19   12.19   12.19

  BUILDHGT GEN3         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN3         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN3         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN3         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN3         12.19   12.19   12.19   12.19   12.19   12.19
  BUILDHGT GEN3         12.19   12.19   12.19   12.19   12.19   12.19
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BUILDHGT GEN4        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN4        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN4        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN4        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN4        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN4        12.19   12.19   12.19   12.19   12.19   12.19

BUILDHGT GEN5        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN5        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN5        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN5        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN5        12.19   12.19   12.19   12.19   12.19   12.19
BUILDHGT GEN5        12.19   12.19   12.19   12.19   12.19   12.19

BUILDWID COATPNT     232.07  226.25  213.56  194.38  169.30  141.90
BUILDWID COATPNT     110.91   76.55   40.60   79.94  117.23  150.95
BUILDWID COATPNT     180.09  203.75  221.22  231.97  235.68  232.22
BUILDWID COATPNT     232.07  226.25  213.56  194.38  169.30  141.90
BUILDWID COATPNT     110.91   76.55   40.60   79.94  117.23  150.95
BUILDWID COATPNT     180.09  203.75  221.22  231.97  235.68  232.22

BUILDWID GEN1        148.29  150.18  153.42  152.01  145.97  135.51
BUILDWID GEN1        120.92  102.66   81.28   57.43   57.95   77.19
BUILDWID GEN1         94.09  108.12  118.87  126.01  136.38  144.53
BUILDWID GEN1        148.29  150.18  153.42  152.01  145.97  135.51
BUILDWID GEN1        120.92  102.66   81.28   57.43   57.95   77.19
BUILDWID GEN1         94.09  108.12  118.87  126.01  136.38  144.53

BUILDWID GEN3        232.07  226.25  213.56  194.38  169.30  141.90
BUILDWID GEN3        110.91   76.55   40.60   79.94  117.23  150.95
BUILDWID GEN3        180.09  203.75  221.22  231.97  235.68  232.22
BUILDWID GEN3        232.07  226.25  213.56  194.38  169.30  141.90
BUILDWID GEN3        110.91   76.55   40.60   79.94  117.23  150.95
BUILDWID GEN3        180.09  203.75  221.22  231.97  235.68  232.22

BUILDWID GEN4        225.35  229.27  228.41  220.61  206.11  185.34
BUILDWID GEN4        158.94   76.55   40.60   79.94  125.94  148.45
BUILDWID GEN4        166.45  179.40  186.89  191.57  207.99  220.01
BUILDWID GEN4        225.35  229.27  228.41  220.61  206.11  185.34
BUILDWID GEN4        158.94   76.55   40.60   79.94  125.94  148.45
BUILDWID GEN4        166.45  179.40  186.89  191.57  207.99  232.22

BUILDWID GEN5        148.29  150.18  153.42  152.01  145.97  135.51
BUILDWID GEN5        120.92  102.66   81.28  116.71   57.95   77.19
BUILDWID GEN5         94.09  108.12  118.87  126.01  136.38  144.53
BUILDWID GEN5        148.29  150.18  153.42  152.01  145.97  135.51
BUILDWID GEN5        120.92  102.66   81.28  116.71   57.95   77.19
BUILDWID GEN5         94.09  108.12  118.87  126.01  136.38  144.53
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BUILDLEN COATPNT 79.94 117.23 150.95 180.09 203.75 221.22
BUILDLEN COATPNT 231.97 235.68 232.22 232.07 226.25 213.56
BUILDLEN COATPNT 194.38 169.30 141.90 110.91 76.55 40.60
BUILDLEN COATPNT 79.94 117.23 150.95 180.09 203.75 221.22
BUILDLEN COATPNT 231.97 235.68 232.22 232.07 226.25 213.56
BUILDLEN COATPNT 194.38 169.30 141.90 110.91 76.55 40.60

BUILDLEN GEN1 57.43 57.95 77.19 94.09 108.12 118.87
BUILDLEN GEN1 126.01 136.38 144.53 148.29 150.18 153.42
BUILDLEN GEN1 152.01 145.97 135.51 120.92 102.66 81.28
BUILDLEN GEN1 57.43 57.95 77.19 94.09 108.12 118.87
BUILDLEN GEN1 126.01 136.38 144.53 148.29 150.18 153.42
BUILDLEN GEN1 152.01 145.97 135.51 120.92 102.66 81.28

BUILDLEN GEN3 79.94 117.23 150.95 180.09 203.75 221.22
BUILDLEN GEN3 231.97 235.68 232.22 232.07 226.25 213.56
BUILDLEN GEN3 194.38 169.30 141.90 110.91 76.55 40.60
BUILDLEN GEN3 79.94 117.23 150.95 180.09 203.75 221.22
BUILDLEN GEN3 231.97 235.68 232.22 232.07 226.25 213.56
BUILDLEN GEN3 194.38 169.30 141.90 110.91 76.55 40.60

BUILDLEN GEN4 116.71 125.94 148.45 166.45 179.40 186.89
BUILDLEN GEN4 191.57 235.68 232.22 232.07 229.27 228.41
BUILDLEN GEN4 220.61 206.11 185.34 158.94 130.98 119.00
BUILDLEN GEN4 116.71 125.94 148.45 166.45 179.40 186.89
BUILDLEN GEN4 191.57 235.68 232.22 232.07 229.27 228.41
BUILDLEN GEN4 220.61 206.11 185.34 158.94 130.98 40.60

BUILDLEN GEN5 57.43 57.95 77.19 94.09 108.12 118.87
BUILDLEN GEN5 126.01 136.38 144.53 225.35 150.18 153.42
BUILDLEN GEN5 152.01 145.97 135.51 120.92 102.66 81.28
BUILDLEN GEN5 57.43 57.95 77.19 94.09 108.12 118.87
BUILDLEN GEN5 126.01 136.38 144.53 225.35 150.18 153.42
BUILDLEN GEN5 152.01 145.97 135.51 120.92 102.66 81.28

XBADJ COATPNT -40.83 -70.70 -98.43 -123.17 -144.16 -160.77
XBADJ COATPNT -172.50 -178.99 -180.04 -181.98 -179.09 -170.76
XBADJ COATPNT -157.24 -138.94 -116.42 -90.36 -61.56 -30.89
XBADJ COATPNT -39.12 -46.53 -52.52 -56.92 -59.59 -60.45
XBADJ COATPNT -59.47 -56.69 -52.18 -50.09 -47.16 -42.80
XBADJ COATPNT -37.14 -30.35 -25.48 -20.54 -14.98 -9.71

XBADJ GEN1 -54.88 -45.83 -44.06 -40.96 -36.62 -31.16
XBADJ GEN1 -24.76 -17.60 -9.91 -1.92 3.50 2.89
XBADJ GEN1 2.19 1.43 0.62 -0.21 -1.03 -1.82
XBADJ GEN1 -2.55 -12.13 -33.13 -53.12 -71.50 -87.71
XBADJ GEN1 -101.25 -118.78 -134.62 -146.37 -153.68 -156.31

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XBADJ   GEN1      -154.20 -147.40 -136.12 -120.71 -101.63  -79.46

XBADJ   GEN3       -46.88  -83.07 -116.73 -146.85 -172.50 -192.92
XBADJ   GEN3      -207.47 -215.72 -217.41 -218.86 -214.36 -203.34
XBADJ   GEN3      -186.15 -163.30 -135.49 -103.56  -68.49  -31.33
XBADJ   GEN3       -33.06  -34.16  -34.22  -33.24  -31.25  -28.31
XBADJ   GEN3       -24.51  -19.96  -14.81  -13.21  -11.89  -10.22
XBADJ   GEN3        -8.23   -6.00   -6.41   -7.35   -8.06   -9.27

XBADJ   GEN4        13.18    0.98  -11.25  -23.13  -34.32  -44.46
XBADJ   GEN4       -56.11   -9.25   -1.47    0.00 -127.26 -142.91
XBADJ   GEN4      -154.22 -160.85 -162.58 -159.38 -153.69 -143.98
XBADJ   GEN4      -129.89 -126.92 -137.20 -143.32 -145.08 -142.43
XBADJ   GEN4      -135.46 -226.43 -230.75 -232.06 -102.01  -85.50
XBADJ   GEN4       -66.39  -45.26  -22.76    0.44   22.72  -44.94

XBADJ   GEN5         8.78   -3.73  -24.81  -45.13  -64.08  -81.09
XBADJ   GEN5       -95.63 -107.26 -115.64 -197.56 -124.33 -130.31
XBADJ   GEN5      -132.33 -130.33 -124.37 -114.63 -101.40  -85.10
XBADJ   GEN5       -66.21  -54.22  -52.39  -48.96  -44.04  -37.79
XBADJ   GEN5       -30.38  -29.11  -28.89  -27.79  -25.84  -23.11
XBADJ   GEN5       -19.68  -15.64  -11.14   -6.29   -1.25    3.82

YBADJ   COATPNT      65.95   65.96   63.98   60.05   54.29   45.47
YBADJ   COATPNT      34.91   23.29   10.59   -0.85  -12.09  -22.95
YBADJ   COATPNT     -33.12  -42.29  -50.16  -56.52  -61.15  -63.93
YBADJ   COATPNT     -65.95  -65.96  -63.98  -60.05  -54.29  -45.47
YBADJ   COATPNT     -34.91  -23.29  -10.59    0.85   12.09   22.95
YBADJ   COATPNT      33.12   42.29   50.16   56.52   61.15   63.93

YBADJ   GEN1       -72.23  -78.59  -79.60  -78.20  -74.41  -68.37
YBADJ   GEN1       -60.25  -50.30  -38.82  -26.16  -16.85   -5.47
YBADJ   GEN1         6.08   17.44   28.27   38.25   50.59   62.36
YBADJ   GEN1        72.23   78.59   79.60   78.20   74.41   68.37
YBADJ   GEN1        60.25   50.30   38.82   26.16   16.85    5.47
YBADJ   GEN1        -6.08  -17.44  -28.27  -38.25  -50.59  -62.36

YBADJ   GEN3       102.83  101.23   96.56   88.96   78.65   64.54
YBADJ   GEN3        48.11   30.21   11.03   -6.91  -24.46  -41.26
YBADJ   GEN3       -56.81  -70.63  -82.31  -91.48  -97.88 -101.30
YBADJ   GEN3      -102.83 -101.23  -96.56  -88.96  -78.65  -64.54
YBADJ   GEN3       -48.11  -30.21  -11.03    6.91   24.46   41.26
YBADJ   GEN3        56.81   70.63   82.31   91.48   97.88  101.30

YBADJ   GEN4        -2.75   12.63   28.71   43.92   57.79   69.91
YBADJ   GEN4        79.91  -42.41  -24.64   -4.54   63.95   62.98
YBADJ   GEN4        60.09   55.38   48.99   39.68   27.44   15.32
YBADJ   GEN4         2.75  -12.63  -28.71  -43.92  -57.79  -69.91
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  YBADJ   GEN4        -79.91   42.41   24.64    4.54  -63.95  -62.98
  YBADJ   GEN4        -60.09  -55.38  -48.99  -39.68  -27.44 -114.64

  YBADJ   GEN5         46.36   49.25   53.60   56.33   57.34   56.62
  YBADJ   GEN5         54.17   50.07   44.46   13.17   25.25   13.79
  YBADJ   GEN5          1.91  -10.02  -21.65  -32.62  -39.07  -43.38
  YBADJ   GEN5        -46.36  -49.25  -53.60  -56.33  -57.34  -56.62
  YBADJ   GEN5        -54.17  -50.07  -44.46  -13.17  -25.25  -13.79
  YBADJ   GEN5         -1.91   10.02   21.65   32.62   39.07   43.38

  URBANSRC ALL
  SRCGROUP COATPNT  COATPNT
  SRCGROUP GEN1    GEN1
  SRCGROUP GEN3    GEN3
  SRCGROUP GEN4    GEN4
  SRCGROUP GEN5    GEN5
  SRCGROUP SLINE1  L0000001 L0000002 L0000003 L0000004 L0000005 L0000006
  SRCGROUP SLINE1  L0000007 L0000008 L0000009 L0000010 L0000011 L0000012
  SRCGROUP SLINE1  L0000013 L0000014 L0000015 L0000016 L0000017 L0000018
  SRCGROUP SLINE1  L0000019 L0000020 L0000021 L0000022 L0000023 L0000024
  SRCGROUP SLINE1  L0000025 L0000026 L0000027 L0000028 L0000029 L0000030
  SRCGROUP SLINE1  L0000031 L0000032 L0000033 L0000034 L0000035 L0000036
  SRCGROUP SLINE1  L0000037 L0000038 L0000039 L0000040 L0000041 L0000042
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  SRCGROUP SLINE1  L0000049 L0000050 L0000051 L0000052 L0000053 L0000054
  SRCGROUP SLINE1  L0000055 L0000056
  SRCGROUP SLINE2  L0000511 L0000512 L0000513 L0000514 L0000515 L0000516
  SRCGROUP SLINE2  L0000517 L0000518 L0000519 L0000520 L0000521 L0000522
  SRCGROUP SLINE2  L0000523 L0000524 L0000525 L0000526 L0000527 L0000528
  SRCGROUP SLINE2  L0000529 L0000530 L0000531 L0000532 L0000533 L0000534
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  SRCGROUP SLINE2  L0000541 L0000542 L0000543 L0000544 L0000545 L0000546
  SRCGROUP SLINE2  L0000547 L0000548 L0000549 L0000550 L0000551 L0000552
  SRCGROUP SLINE2  L0000553 L0000554 L0000555 L0000556 L0000557 L0000558
  SRCGROUP SLINE2  L0000559 L0000560
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
** receptors not presented to minimize document space
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
```

```
**************************************
**
**
ME STARTING
  SURFFILE KBUR_v9.SFC
  PROFFILE KBUR_v9.PFL
  SURFDATA 23152 2012
  UAIRDATA 3190 2012
  PROFBASE 236.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
  RECTABLE ALLAVE 1ST
  RECTABLE 1 1ST
** Auto-Generated Plotfiles
  PLOTFILE 1 COATPNT 1ST MIDVALLEY_UPDATED.AD\01H1G001.PLT 31
  PLOTFILE 1 GEN1 1ST MIDVALLEY_UPDATED.AD\01H1G002.PLT 32
  PLOTFILE 1 GEN3 1ST MIDVALLEY_UPDATED.AD\01H1G003.PLT 33
  PLOTFILE 1 GEN4 1ST MIDVALLEY_UPDATED.AD\01H1G004.PLT 34
  PLOTFILE 1 GEN5 1ST MIDVALLEY_UPDATED.AD\01H1G005.PLT 35
  PLOTFILE 1 SLINE1 1ST MIDVALLEY_UPDATED.AD\01H1G006.PLT 36
  PLOTFILE 1 SLINE2 1ST MIDVALLEY_UPDATED.AD\01H1G007.PLT 37
  PLOTFILE PERIOD COATPNT MIDVALLEY_UPDATED.AD\PE00G001.PLT 38
  PLOTFILE PERIOD GEN1 MIDVALLEY_UPDATED.AD\PE00G002.PLT 39
  PLOTFILE PERIOD GEN3 MIDVALLEY_UPDATED.AD\PE00G003.PLT 40
  PLOTFILE PERIOD GEN4 MIDVALLEY_UPDATED.AD\PE00G004.PLT 41
  PLOTFILE PERIOD GEN5 MIDVALLEY_UPDATED.AD\PE00G005.PLT 42
  PLOTFILE PERIOD SLINE1 MIDVALLEY_UPDATED.AD\PE00G006.PLT 43
  PLOTFILE PERIOD SLINE2 MIDVALLEY_UPDATED.AD\PE00G007.PLT 44
  SUMMFILE MidValley_Updated.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

APPENDIX C – HARP2 OUTPUT REPORTS

HARP2 Model Results Summary Report

Isopleth of 70-year Cancer Risk

HARP2 - HRACalc (dated 19044) 5/8/2019 12:01:48 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\NickGysel\Desktop\Dudek Mid Valley Water\LADWP MIDVALLEY\hra\ResidentialCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\NickGysel\Desktop\Dudek Mid Valley Water\LADWP MIDVALLEY\hra\ResidentialCancerRiskSumByRec.csv
HRA ran successfully

HARP2 - HRACalc (dated 19044) 5/8/2019 12:03:37 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 25

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 25

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: C:\Users\NickGysel\Desktop\Dudek Mid Valley Water\LADWP MIDVALLEY\hra\WorkerCancerRisk.csv
Cancer risk total by receptor saved to: C:\Users\NickGysel\Desktop\Dudek Mid Valley Water\LADWP MIDVALLEY\hra\WorkerCancerRiskSumByRec.csv
HRA ran successfully

HARP2 - HRACalc (dated 19044) 5/8/2019 12:04:45 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: True
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home

NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

****
HOMEGROWN CROP PATHWAY SETTINGS

Household type: HouseholdsthatGarden
Fraction leafy: 0.137
Fraction exposed: 0.137
Fraction protected: 0.137
Fraction root: 0.137

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: C:\Users\NickGysel\Desktop\Dudek Mid Valley Water\LADWP MIDVALLEY\hra\ResidentialNCChronicRisk.csv
Chronic risk total by receptor saved to: C:\Users\NickGysel\Desktop\Dudek Mid Valley Water\LADWP MIDVALLEY\hra\ResidentialNCChronicRiskSumByRec.csv
HRA ran successfully

HARP2 - HRACalc (dated 19044) 5/8/2019 12:05:49 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCAcute
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home

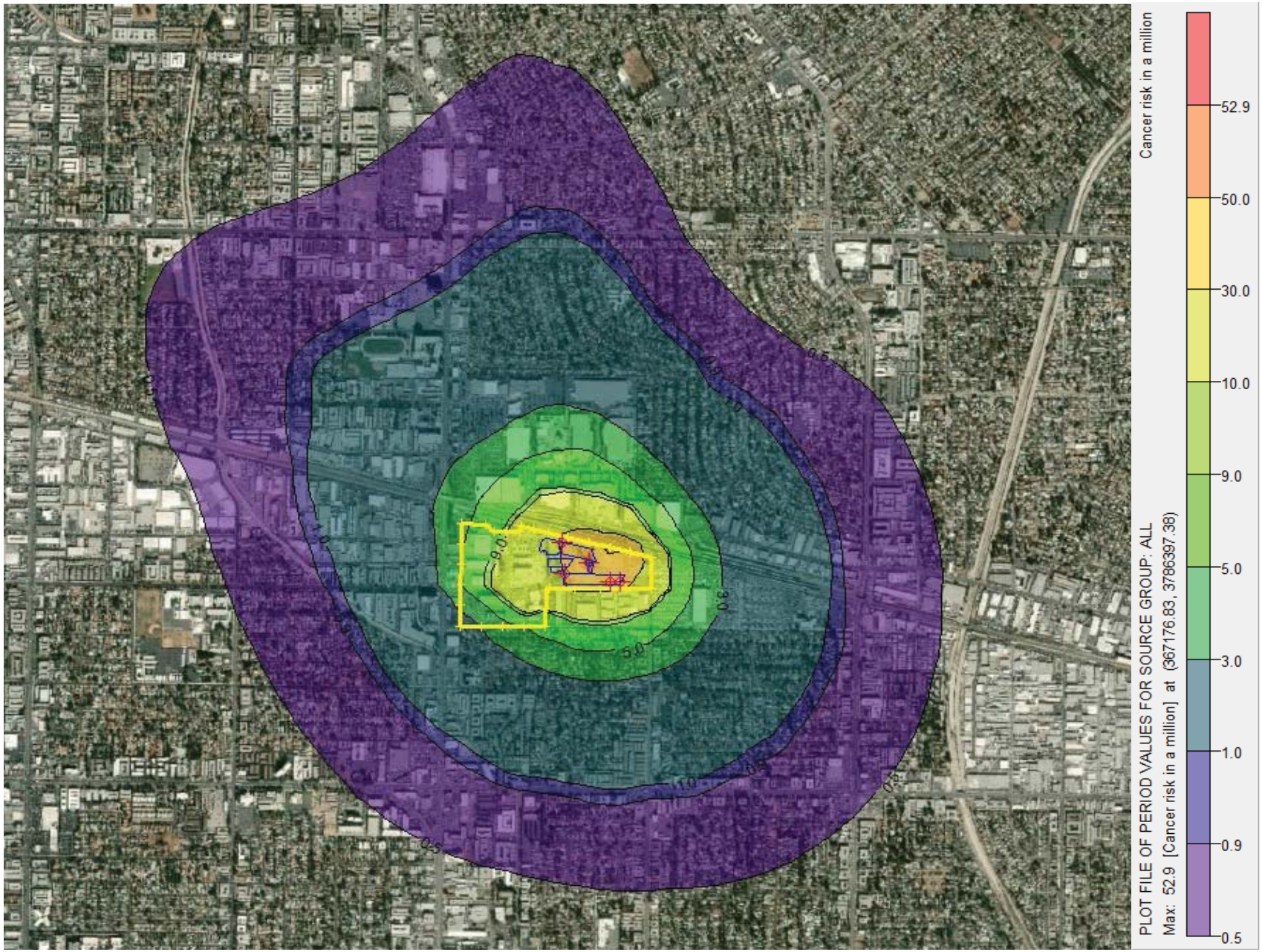
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

****

TIER 2 SETTINGS
Tier2 not used.

****

Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: C:\Users\NickGysel\Desktop\Dudek Mid Valley Water\LADWP MIDVALLEY\hra\NCAcuteRisk.csv
Acute risk total by receptor saved to: C:\Users\NickGysel\Desktop\Dudek Mid Valley Water\LADWP MIDVALLEY\hra\NCAcuteRiskSumByRec.csv
HRA ran successfully


PLOT FILE OF PERIOD VALUES FOR SOURCE GROUP: ALL
Max: 52.9 [Cancer risk in a million] at (367176.83, 3786397.38)
Cancer risk in a million
52.9
50.0
30.0
10.0
9.0
5.0
3.0
1.0
0.9
0.5

APPENDIX B

CNDDB Occurrence Report

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68507
Key Quad: Van Nuys (3411824)
Occurrence Number: 51
EO Index: 68931
Element Code: AMACC02010
Occurrence Last Updated: 2007-03-20

Scientific Name: *Lasionycteris noctivagans*
Common Name: silver-haired bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S3S4
Rare Plant Rank:
Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

PRIMARILY A COASTAL & MONTANE FOREST DWELLER FEEDING OVER STREAMS, PONDS & OPEN BRUSHY AREAS.

Micro Habitat:

ROOSTS IN HOLLOW TREES, BENEATH EXFOLIATING BARK, ABANDONED WOODPECKER HOLES & RARELY UNDER ROCKS. NEEDS DRINKING WATER.

Last Date Observed: 1985-02-21
Last Survey Date: 1985-02-21
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VAN NUYS.

Detailed Location:

MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 3218.688 M.

Ecological:

Threats:

General:

1 FEMALE SPECIMEN (MVZ #181855) COLLECTED BY DENNY G. CONSTANTINE ON 21 FEB 1985.

PLSS: T01N, R15W, Sec. 10 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3783469 E366700
Latitude/Longitude: 34.18369 / -118.44651
Elevation (feet):

County Summary:	Quad Summary:
Los Angeles	Van Nuys (3411824)

Sources:

MAN04S0022 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIONYCTERIS NOCTIVAGANS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM LACM, CAS, MSB & MVZ. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68507
Key Quad: Van Nuys (3411824)
Occurrence Number: 62
EO Index: 68821
Element Code: AMACC05030
Occurrence Last Updated: 2007-03-16

Scientific Name: *Lasiurus cinereus*
Common Name: hoary bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S4
Rare Plant Rank:
Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER & OPEN AREAS OR HABITAT EDGES FOR FEEDING.

Micro Habitat:

ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.

Last Date Observed: 1986-07-08
Last Survey Date: 1986-07-08
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

VAN NUYS.

Detailed Location:

MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS, WITH UNCERTAINTY OF 3218.688 M.

Ecological:

Threats:

General:

1 FEMALE SPECIMEN (MVZ #181865) COLLECTED BY DENNY G. CONSTANTINE ON 8 JUL 1986.

PLSS: T01N, R15W, Sec. 10 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3783469 E366700
Latitude/Longitude: 34.18369 / -118.44651
Elevation (feet):

County Summary:

Los Angeles

Quad Summary:

Van Nuys (3411824)

Sources:

MAN04S0029 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIURUS CINEREUS SPECIMENS FOR CALIFORNIA FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, MSB, LSU, KU, LACM, UWBM, FMNH AND TTU. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 01611
Key Quad: Beverly Hills (3411814)
Occurrence Number: 46
EO Index: 28128
Element Code: ARACF12100
Occurrence Last Updated: 2012-02-14

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3S4
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:
FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:
OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, & ABUNDANT SUPPLY OF ANTS & OTHER INSECTS.

Last Date Observed: 1916-06-04
Last Survey Date: 1916-06-04
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
FRANKLIN CANYON.

Detailed Location:
LOCALITY PROVIDED AS "FRANKLIN CANYON." MAPPED TO THE GEOGRAPHIC CENTER OF THE CANYON.

Ecological:

Threats:

General:
1 COLLECTED ON 4 JUN 1916 BY L.E. WYMAN (LACM #4292).

PLSS: T01S, R15W, Sec. 02, NE (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3775656 E369514
Latitude/Longitude: 34.11361 / -118.41481
Elevation (feet): 1,000

County Summary:
Los Angeles

Quad Summary:
Beverly Hills (3411814), Van Nuys (3411824)

Sources:

LAC06S0001	LOS ANGELES COUNTY MUSEUM - PRINTOUT OF LACM PHRYNOSOMA CORONATUM SPECIMEN RECORDS FOR LOS ANGELES COUNTY. 2006-01-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 01438
Key Quad: Van Nuys (3411824)
Occurrence Number: 142

EO Index: 28071
Element Code: ARACF12100
Occurrence Last Updated: 2006-01-23

Scientific Name: *Phrynosoma blainvillii*
Common Name: coast horned lizard

Listing Status: **Federal:** None
State: None

CNDDB Element Ranks: **Global:** G3G4
State: S3S4

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern

General Habitat:

FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.

Micro Habitat:

OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, & ABUNDANT SUPPLY OF ANTS & OTHER INSECTS.

Last Date Observed: 1947-04-20
Last Survey Date: 1947-04-20
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated

Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:

PACOIMA WASH, SAN FERNANDO VALLEY.

Detailed Location:

Ecological:

Threats:

General:

LACM SPECIMEN #19854; COLLECTED 20 APR 1947.

PLSS: T02N, R15W, Sec. 28 (S)
UTM: Zone-11 N3788695 E365625

Accuracy: 1 mile
Latitude/Longitude: 34.23067 / -118.45899

Area (acres): 0
Elevation (feet): 830

County Summary:

Los Angeles

Quad Summary:

Van Nuys (3411824)

Sources:

BRO80U0001	BRODE, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GEOGRAPHIC REFERENCE CARD CATALOG OF SPECIMENS AND FIELD NOTE RECORDS COMPILED BY JOHN BRODE (DFG). 1980-XX-XX
LAC06S0001	LOS ANGELES COUNTY MUSEUM - PRINTOUT OF LACM PHRYNOSOMA CORONATUM SPECIMEN RECORDS FOR LOS ANGELES COUNTY. 2006-01-23

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68507
EO Index: 98944
Key Quad: Van Nuys (3411824)
Element Code: IIHYM24480
Occurrence Number: 144
Occurrence Last Updated: 2015-09-23

Scientific Name: *Bombus crotchii*
Common Name: Crotch bumble bee

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3G4
State: S1S2

General Habitat:

COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.

Micro Habitat:

FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.

Last Date Observed: 1936-04-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1936-04-09
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

VAN NUYS.

Detailed Location:

EXACT LOCATION UNKNOWN. MAPPED BY CNDDB IN THE VICINITY OF THE COMMUNITY OF VAN NUYS, IN SAN FERNANDO VALLEY.

Ecological:

Threats:

General:

COLLECTIONS WERE MADE IN THIS VICINITY ON 31 MAR 1936, 1 APR 1936, AND 9 APR 1936.

PLSS: T01N, R15W, Sec. 10 (S)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N3783469 E366700
Latitude/Longitude: 34.18369 / -118.44651
Elevation (feet): 700

County Summary:

Los Angeles

Quad Summary:

Van Nuys (3411824)

Sources:

ANO36S0005 ANONYMOUS - LACM ENT #246 COLLECTED FROM VAN NUYS 1936-04-01
ANO36S0006 ANONYMOUS - LACM ENT #247 COLLECTED FROM VAN NUYS 1936-03-31
ANO36S0007 ANONYMOUS - LACM ENT #248 COLLECTED FROM VAN NUYS 1936-04-09

APPENDIX C

Cultural Report

July 11, 2016 8584

Ms. Nancy Chung
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012

Subject: ***Mid Valley Water Facility Cultural Constraints Letter Report, City of Los Angeles, Los Angeles County, California***

Dear Ms. Chung:

This letter documents the cultural resources constraints study conducted by Dudek for the Los Angeles Department of Water and Power (LADWP) Mid Valley Water Facility Project (Project), located in the City of Los Angeles, Los Angeles County, California (Figures 1 and 2). Dudek completed a cultural resources record search at the South Central Coast Information Center (SCCIC) to determine whether prehistoric or historic sites occur within the Project area (SCCIC 2016). The records search included the entirety of the Mid Valley Water Facility Project area, and a 1-mile vicinity surrounding the Project area. A Native American Heritage Commission (NAHC) Sacred Lands File search did not indicate the presence of Native American cultural sites within the area.

REGULATORY BACKGROUND

Applicable regulations for evaluating cultural resources, address adverse impacts to cultural resources, and identify protection measures for these resources and for determining resource significance are identified in CEQA Guidelines Section 15064.5.

CEQA Guidelines Section 15064.5

CEQA Guidelines Section 15064.5 states that a cultural resource (i.e., a prehistoric or historic period archaeological site or historic architectural structure or feature) is considered "historically significant" under CEQA if the resource meets the criteria for listing in the California Register of Historical Resources (CRHR).

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; or
- Is associated with the lives of persons important in our past; or

- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

RECORDS SEARCH RESULTS

A records search was conducted at the SCCIC by Archaeologist Scott Wolf on June 29, 2016. The results are provided below.

Previously Identified Cultural Resources

The records search conducted for the Mid Valley Water Facility Project determined that while no previously recorded archaeological sites were recorded within the boundaries of the Project area, a total of 3 historic structures and 1 historic district had been previously recorded within the 1-mile vicinity surrounding the current Project area (Table 1). Additionally, there are no recorded cultural resources within the Project area that are listed in the National Register of Historic Places, the California Register of Historic Preservation Archaeological Determinations of Eligibility (ADOE).

Table 1.
Previous Recorded Resources within the Mid Valley Water Facility Project 1-mile Records Search Area

Primary Number	Trinomial	Age	Description	In / Out of APE
P-19-188173	N/A	Historic	Historic Structure, 7300-7304 Varna Ave.	Out
P-19-188183	N/A	Historic	Historic District, 26 Residential blocks.	Out
P-19-190651	N/A	Historic	Historic Structure, 6920 Van Nuys Blvd.	Out
P-19-190994	N/A	Historic	Historic Structure, 8252 Van Nuys Blvd.	Out

The most significant previously recorded resource within the current Project's record search results would arguably be the historic district, P-19-188183, also known as the Panorama City Historic District. This resource includes 26 residential blocks that were recorded as significant for its associations with broad patterns of suburban development during the late 1940s and early

1950s. While this resource is considerable in size and relative complexity, the district is located along the very northern edge of the record search 1-mile buffer area, well outside and north of the current Project area boundaries and has little to no chance of impact as a result of the Mid Valley Water Facility Project. Similarly, the other three historic structures previously recorded within the 1-mile record search buffer area are all far enough away from the current Project area to remain undisturbed by the Mid Valley Water Facility Project.

Previous Cultural Resources Investigations

The SCCIC record search results indicated that 26 previous cultural resources technical studies have been performed within 1-mile of the Project area (Confidential Appendix A). Only one of the previous 26 studies conducted (LA-0160, Dames and Moore 1988) has covered a portion the Project area (Table 2). While this study, conducted for the installation of a fiber optics cable line, does not cover the entire Project area, the study did cover a narrow swath (a trench) spanning the entire length of the current Project area. While cultural resources were identified during the extended fiber optic cable line Project, the results of the report were negative for cultural resources within the current Project area (Dames and Moore 1988 – Appendix A). The previous study covering the current Project area is listed in bold within Table 2.

Table 2.
Previous Technical Studies within the Mid Valley Water Facility Record Search 1-mile Records Search Area

Report ID	Year	Technical Report Title	Author
LA-0160	**1988**	***Phase I Cultural Resources Survey Fiber Optic Cable Project Burbank To Santa Barbara, California***	**Dames & Moore**
LA-1037	1976	*Assessment of the Archaeological Impact by the Proposed Development of the East Valley Interceptor Sewer- Unit 1*	Michael J. McIntyre
LA-2645	1991	*Class 3 Cultural Resource Assessment of the Proposed Carpinteria and Southern Reroutes, Santa Barbara, Ventura, and Los Angeles Counties, California*	Peak & Associates, Inc.
LA-2950	1993	*Cultural Resources Studies for the Proposed Pacific Pipeline Project*	Peak & Associates
LA- 3486	1994	*A Cultural Resources Inventory for the East Valley Water Reclamation Project*	E. Gary Stickle
LA-3722	1977	*Historic Property Survey Report- Strathern Street – Between Coldwater Canyon Avenue and Woodman Avenue.*	Lloyd D. Paulsen
LA-3992	1998	*Cultural Resource record Search, Archival Research, and Field Survey Report for the Van Nuys Primary Center, City of Van Nuys, Los Angeles County, California*	Patricia Jertberg
LA-4562	1999	*Cultural Resources Assessment for Pacific bell Mobile Services Telecommunications facility LA 548-01, in the County of Los Angeles, California*	Curt Duke

LA-4844	2000	*Cultural Resources Assessment for Pacific bell Mobile Services Facility LA 548-03 County of Los Angeles, California*	Curt Duke
LA-5217	2001	*Cultural resources Investigation of the Proposed East Valley High School No. 3, Van Nuys, Los Angeles County, California*	Noelle Storey
LA-5603	2000	*Cultural Resources Assessment for Pacific Bell Wireless Facility LA 140-04, County of Los Angeles, California*	Curt Duke
LA-5745	2002	*Cultural Resource Assessment for the AT&T Wireless Services Facility No. 14061, Los Angeles County, California*	Curt Duke
LA-6599	2002	*Historic Resources Evaluation Report Mason Avenue At-Grade Crossing and Safety Improvement Project Los Angeles City, California*	John M. Foster
LA-7782	2005	*Phase 1 Archaeological Study For the Proposed Sherman Apartments Affordable Housing Project, City of Los Angeles, Los Angeles County, California*	Robert J. Wlodarski
LA-7911	2006	*Royal Street Communications Wireless Telecommunications Site LA-0060A*	Robert J. Wlodarski
LA-8255	2006	*Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California*	SWCA Environmental Consultants
LA-9592	2008	*Cultural Resources Records Search and Site visit Results for T-Mobile Candidate SV11856C (Presbytery of San Fernando)*	Wayne H. Bonner
LA-10756	2010	*A Cultural Resources Overview and Preliminary Assessment of the Pacoima/Panorama City Redevelopment Plan Amendment/Expansion Project Area, Los Angeles County,*	Jeanette A. McKenna
LA-11258	2010	*Crown Castle Tower Project: "West Covina #11786-3407" Cellular Tower Cultural Review Submission Report, Los Angeles County, California*	Mark Larocque
LA-12074	2012	*BTS Fast Forward/ MLAX04153A Cellular Tower Cultural Review Submission Report, Los Angeles County, California*	Earth Touch
LA-12505	2012	*Draft Phase 1 cultural Resources Assessment San Fernando Valley Water Recycling Project City of Los Angeles, California*	James R. Wallace, RPA, Sara Dietler & Linda Kry
LA-12508	2012	*Cultural Resources Records Search and Site Visit For the AT&T Mobility, LLC Site: Sherman Way and Van Nuys/LA0278*	Nancy Sikes
LA-12652	2014	*Cultural Resource Assessment Class III Inventory For the Verizon Wireless Services Carolla Facility, City of Los Angeles, Los Angeles County, California*	Phil Fulton; Elisa Bechtel; and Casey Tibbet

NAHC SACRED LANDS FILE SEARCH

LADWP requested a Native American Heritage Commission (NAHC) search of the Sacred Lands File in order to identify the presence of any Native American sites of traditional cultural value within, and surrounding, the study area. A response to this request was received on April 26, 2016. The NAHC has no record of any such sites within or near this area. The LADWP subsequently sent request letters for additional information related to such resources from the tribal representatives provided on the Contact List (Appendix B).

ARCHAEOLOGICAL SENSITIVITY

No archaeological resources have been recorded within the Project area and only a total of 4 cultural resources have been recorded within the surrounding 1-mile records search buffer. All of these previously recorded resources all well outside of the current Project's boundaries. Additionally, a narrow portion of the current Project area has been studied previously with negative results for cultural resources.

It is unlikely that any significant prehistoric Native American resources are present. The NAHC conducted a search of their Sacred Lands file. This search did not indicate the presence of any Native American cultural sites. A contact list was provided of tribal representatives that may have information relating to traditional cultural places in the region (Appendix B).

Nonetheless, despite largely negative findings there is always a possibility to encounter previously unknown buried cultural deposits. If such a deposit or feature were to be encountered, a City approved archaeological evaluation program would be required to be developed and implemented in order to assess the significance of the resource (as defined by CEQA and the City of Los Angeles).

SUMMARY OF FINDINGS

This investigation resulted in the following assessments:

- There are no previously recorded cultural resources within the Project area.
- There are four (4) previously recorded cultural resources within 1-mile of the Project area. None of these resources, all historic structures, have been identified within the Project area.
- There have been 26 cultural resources studies completed within 1-mile of the Project area. One study has directly included a portion of the current Project area, and this study indicated negative results within the current Project boundaries.
- Based on previous investigations, there is a very low probability of encountering unanticipated buried cultural resources during Project implementation.
- This constraints memo does not satisfy the City of Los Angeles permitting requirement to prepare a full Archaeological Resources Management Report (ARMR). This report must be completed by a City certified archaeologist and will contain a full legal and cultural context, in addition to a comprehensive impact analysis and recommendations for mitigation.

If you have any questions about this investigation, please contact me or Practice Manager Micah Hale directly at 760-479-4276.

Respectfully

Scott Wolf, B.S.
Archaeologist

and

Micah J. Hale, Ph.D., RPA
Practice Manager/Archaeologist

Att.: *Figure 1, Regional Map*
Figure 2, Location Map
Appendix A: Negative SCIC Records Search Information
Appendix B: NAHC SLF Search Results

REFERENCES

South Central Coastal Information Center, San Diego State University, California (SCCIC). 2016. California Historical Resources Information System Records Search for the Mid Valley Water Facility Project, June 29, 2016. Dr. Seth Mallios, Director.

APPENDIX D

Preliminary Soil and Soil Gas Sampling Report and Phase II Environmental Site Assessment

Woo, Casey

From: Lew, Kelvin
Sent: Friday, June 14, 2013 4:21 PM
To: Wong, Gary
Cc: Sedlacek, Mark; Faeustle, George; Ledesma, Reynan; Woo, Casey
Subject: FW: Tyrone Property - Shallow Soil and Soil Gas Investigation Executive Summary
Attachments: Tables_prelim.pdf; Figures_prelim.pdf; Tyrone EXECSummary_Prelim.pdf

Gary:

Here is the Executive Summary (along with tables and figures). Preliminary conclusions and recommendations are provided.

We are still waiting for analytical results from sampling completed two days ago (June 12) in the former septic tank area. We do not anticipate the pending results to change the conclusions or recommendations.

We should be able to have the completed final report a week or so after the final lab results are in.

Kelvin.

EXECUTIVE SUMMARY

Alta Environmental (Alta) conducted a Surface Soil and Soil Gas Investigation for the Los Angeles Department of Water and Power (LADWP) on the former Quest Diagnostics property located at 7600 Tyrone Avenue, Van Nuys, California (the "Site). The Site is unoccupied and is listed for sale as a commercial/industrial property. The purpose of the investigation was to assess potential hazardous substance contamination at the Site prior to site acquisition. A Site Location Map is provided as Figure 1.

Site Description

The Site was an unoccupied bioscience laboratory prior to the investigation and consisted of nine buildings, parking areas, facility equipment, and chemical and hazardous material storage areas on the western and central section of the Site, and a vacant field containing an abandoned residential dwelling, bunny house, construction equipment, and construction material storage areas on the eastern portion of the Site. During field implementation of the investigation, the building structures on the Site were under active asbestos and lead-based paint abatement and demolition. Historical uses at the Site included agricultural activities up to 1965, when the initial building construction began at the Site. A Site Layout is provided as Figure 2.

Previous Investigations

Past environmental investigations at the Site included a Phase I Environmental Site Assessment (ESA) prepared for Quest Diagnostics, Inc. (ODIC, October 22, 2010), a Phase I ESA prepared for Shubin-Nadal Realty Investors (AMEC, October 22, 2012a), and a Screening Level Phase II Investigation prepared for Shubin-Nadal Realty Investors (AMEC, September 28, 2012b).

Based on the results of the Phase I ESAs (ODIC, 2010 and AMEC, 2012a) and Screening Level Phase II Investigation (AMEC, 2012b) the following conclusions were made:

The soil vapor data do not suggest a significant release has occurred at the site that would require mitigation for commercial development. Soil sample data suggest metals are not present at concentrations indicative of environmental impact and generally are consistent with typical background concentrations. The few low concentrations of volatile organic compounds (VOCs) and relatively low and heavier end hydrocarbons detected in shallow soil do not suggest significant impacts are present in the areas investigated (AMEC, 2012).

Based on information obtained from other properties in the general site vicinity of the Site, the anticipated depth to groundwater beneath the site is assumed to be between 200 and 250 feet bgs (RWQCB's online Geotracker database).

Environmental Concerns and Investigation Objectives

The primary objective of this investigation was to assess any subsurface impacts to the soil and soil gas at the Site from former use as a bioscience laboratory, historical structures, and former agricultural use.

Shallow Soil Matrix and Soil Gas Sampling

On May 28 and 29, 2013, a total of 30 shallow borings (B1 – B30) were drilled at the Site. All soil borings were continuously cored from surface to the terminus depth of 3 feet bgs using a direct-push drill rig. Soil matrix samples were collected from each boring at 1, 2, and 3 feet bgs using a core sampler lined with acetate sleeves. Soil boring locations are presented in Figure 3.

Following sample collection, the sample containers were properly capped, sealed, labeled, and stored in a chilled ice chest for transport under chain-of-custody documentation for analysis or archiving to LADWP's State of California-certified laboratory (Certificate No. 1207) located in Los Angeles, California. All soil samples designated for volatile analysis were preserved using in-field preservation kits in accordance with EPA Method 5035. The 1 and 3 foot samples from each boring were variously analyzed for Title 22 Metals by EPA Method 6010B, organochlorine pesticides (OCPs) by EPA Method 8081A, polychlorinated biphenyls (PCBs) by EPA Method 8082, total petroleum hydrocarbons (TPH) by EPA Method 8015M, semivolatile organic compounds (SVOCs) by EPA Method 8270C, and VOCs by EPA Method 8260B. The 2 foot samples collected from each boring were archived at the laboratory. The shallow soil sampling and analysis plan is presented as Table 1.

On May 30 and 31, 2013 soil vapor probes were installed at 15 boring locations (VP1 through VP15) at 5 and 15 feet bgs. On June 4 and 5, 2013, the soil vapor probes were sampled and analyzed by Jones Environmental, Inc.'s on-site mobile laboratory. Samples were not collected from vapor probes at VP4 and VP5 due to inaccessibility from stockpiled demolition debris. On June 12, 2013, soil vapor probes were installed in boring location VP16 in the vicinity of the former septic tank/cesspool at 5 and 15 feet bgs. Following probe installation and a minimum 2 hours of equilibration time, the vapor probes at VP16 were sampled using SUMMA® canisters and analyzed by the Jones Environmental fixed laboratory.

All soil vapor samples collected for this investigation were analyzed for VOCs by EPA Method 8260B by Jones Environmental Laboratory. The soil vapor samples included 28 primary samples, two (2) purge volume samples, and three (3) field replicates for a total of 33 soil vapor samples. The soil gas sampling and analysis plan is presented as Table 2. Soil Gas boring locations are presented in Figure 3.

Preliminary Findings

The following surface soil sample results are presented in milligrams per kilogram (mg/kg) and micrograms per kilogram (ug/kg) as identified in Tables 3 through 8. The following soil gas sample results are presented in micrograms per liter (ug/L) as identified in Table 9. All soil gas sample results were available and reviewed for the preparation of the following summary with the exception of sample results for VP16 (collected and submitted June 12, 2013), which are still pending.

- No VOCs or PCBs were detected in any of the surface soil samples submitted for analysis.
- Surface soil samples variously exhibited detected concentrations of:
  - Title 22 Metals including antimony (not detected above the laboratory reporting limit [ND] to 4.2J mg/kg), barium (99 to 300 mg/kg), cadmium (1.8J to 4.1 mg/kg), chromium (10 to 23 mg/kg), cobalt (7.8 to 21 mg/kg), copper (7.7J to 22 mg/kg), lead (6.7 to 42 mg/kg), molybdenum (ND to 0.5J), nickel (12.3 to 24 mg/kg), vanadium (19 to 38 mg/kg), zinc (36 to 124 mg/kg), and mercury (ND to 0.048 mg/kg). In addition, silver was detected in one sample (B22-1') at 7.4J mg/kg;
  - SVOCs including benzo(g,h,i)perylene (ND to 0.11J mg/kg), butyl benzyl phthalate (ND to 0.29J mg/kg), and indeno(1,2,3-cd)pyrene (ND to 0.17J mg/kg). In addition, dibenzo(a,h)antrhacene and pentachlorophenol were detected in one sample (B21-1') at 0.099J mg/kg and 0.39J mg/kg, respectively;
  - OCPs including 2,4-DDD (ND to 36 ug/kg), 2,4-DDT (ND to 190 ug/kg), 4,4-DDE (ND to 740 ug/kg), 4,4-DDT (ND to 270 ug/kg), beta-hexachlorocyclohexane (beta-BHC; ND to 42 ug/kg), and toxaphene (ND to 2,400 ug/kg); and
  - TPH as total extractable petroleum hydrocarbons (TEPH; ND to 60.6 mg/kg [as motor oil]);
- Soil gas samples exhibited detected concentrations of VOCs including carbon tetrachloride (ND to 0.035 ug/L), chloroform (ND to 0.896 ug/L), Freon 113 (ND to 2.82 ug/L), tetrachloroethylene (PCE; ND

to 0.059 ug/L), and trichloroethylene (TCE; ND to 2.89 ug/L). In addition, 1,1-dichloroethene (1,1-DCE) was detected in one sample (VP13-15') at a concentration of 0.118 ug/L.

Preliminary Conclusions

Based on the shallow soil sample results and the *available* soil gas sample results at the time of this summary:

- Concentrations of Title 22 Metals and SVOCs in soil are below the Environmental Protection Agency's (EPA, Region 9) Regional Screening Levels (RSLs) developed for a commercial/industrial scenario.
- Concentrations of OCPs in soil are below the Office of Environmental Health Hazard Assessment (OEHHA) and the CalEPA (OEHHA/CalEPA, 2010) residential and commercial/industrial California Human Health Screening Levels (CHHSLs), with the exception of toxaphene detected in one sample (B16-3'; 2,400 ug/kg), which exceeded the commercial/industrial CHHSL of 1,800 ug/kg.
- Concentrations of TPH detected in soil are below the Los Angeles California Regional Water Quality Control Board's (LARWQCB) maximum soil screening levels above drinking water aquifers greater than 150 feet bgs (LARWQCB, Table 4-1, May 1996) for TPH as gasoline (1,000 mg/kg), TPH as diesel (10,000 mg/kg), and TPH as motor oil (50,000 mg/kg).
- Concentrations of VOCs detected in soil gas are below the OEHHA/EPA (2010) CHHSLs for shallow soil gas (engineered fill) in a commercial/industrial land use scenario, for carbon tetrachloride (0.21 ug/L), PCE (1.6 ug/L), and TCE (4.4 ug/L). No CHHSLs are documented by Cal/EPA, OEHHA for the VOCs 1,1-DCE, Freon 113, and chloroform in soil gas.

It should be noted that the RSLs, CHHSLs, and Maximum Soil Screening Levels have been used as a general comparison, and are not regulatory standards and/or acceptable concentrations. These levels are used as benchmark values to determine whether further assessment and evaluation of the constituents detected in soil and soil gas, are required for the Site.

Preliminary Recommendations

Based on available analytical data, and the findings of this investigation, additional assessment work is not warranted at this time. However, any unknown subsurface structures or potentially contaminated soil encountered during site demolition and construction should be investigated for potential hazardous substances impacts to the property.

Additional assessment around sample location B16 at 3 feet bgs (B16-3') may be warranted in order to define the lateral and vertical extent of OCP (toxaphene) impacts in the area as necessary, and where disturbance of shallow soil in that area is anticipated during any site redevelopment activities.

These recommendations are preliminary. Updated or supplemental recommendations may be given, based on any additional information that becomes available (pending soil gas data). Once all the data has been reviewed by Alta Environmental, the LADWP will be provided with the final investigation report, which will include a finalized executive summary and recommendations.

TABLE 1
Surface Soil Sample and Analysis Plan
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Boring Nos.	Sample Rationale	Analytical Program
B1 – B12	Lead based paint from existing and historic structures.	Lead (6010B)
B13 – B20	Former agriculture activities.	Arsenic (6010B)
		OCPs (8081A)
B21 – B24	Various surface soil stains, equipment storage, and hazardous waste storage.	Metals (6010B/7471A)
		TPH Full Scan (8015M)
		SVOCs (8270C)
		PCBs (8082)
B25 – B28	Import soil	Metals (6010B/7471A)
		TPH Full Scan (8015M)
		VOCs (8260B)
		SVOCs (8270C)
		PCBs (8082)
B29 – B30	Railroad ties and saw dust piles.	TPH diesel/oil (8015M)
		SVOCs (8270C)

NOTES:
OCPs – Organochlorine Pesticides by EPA Method 8081A
PCBs – Polychlorinated Biphenyls by EPA Method 8082
VOCs – Volatile Organic Compounds by EPA Method 8260B
SVOCs – Semi Volatile Organic Compounds by EPA Method 8270C
Metals – Title 22 Metals by EPA Method 6010B/7471A
TPH Full Scan – Total Petroleum Hydrocarbons as gasoline, diesel, and oil by EPA Method 8015M
TPH diesel/oil – Total Petroleum Hydrocarbons as diesel and oil by EPA Method 8015M
Lead – Lead by EPA Method 6010B
Arsenic – Arsenic by EPA Method 6010B
bgs – below ground surface

TABLE 2
Soil Vapor Sampling and Analysis Plan
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID	Sample Depth (ft. bgs)	Surface Type	Sampling Method	Sample Rationale	Analytical Program
VP1	5	Asphalt and/or concrete	Geoprobe/ Direct Push	Emergency generator location, east side of Building G	VOCs
	15				
VP2	5	Planter Area - Unpaved	Geoprobe/ Direct Push	Floor drain, along perimeter of Building F	VOCs
	15				
VP3	5	Asphalt and/or concrete	Geoprobe/ Direct Push	Emergency generator, rinsing area, uncovered floor drain, potential location of "floor drain blank"	VOCs
	15				
VP4	5	Asphalt and/or concrete	Geoprobe/ Direct Push	Former diesel generator	VOCs
	15				
VP5	5	Asphalt and/or concrete	Geoprobe/ Direct Push	Miscelaneous storage area, unknown buckets of liquid	VOCs
	15				
VP6	5	Asphalt and/or concrete	Geoprobe/ Direct Push	Former diesel generator and boilers	VOCs
	15				
VP7	5	Planter Area - Unpaved	Geoprobe/ Direct Push	Floor drains, along perimeter of Building C	VOCs
	15				
VP8	5	Asphalt and/or concrete	Geoprobe/ Direct Push	Floor drains, along perimeter of Building C	VOCs
	15				
VP9	5	Planter Area - Unpaved	Geoprobe/ Direct Push	Second boring along perimeter of Building F	VOCs
	15				
VP10	5	Planter Area - Unpaved	Geoprobe/ Direct Push	One of two borings along perimeter of Building A; side of fume hoods	VOCs
	15				
VP11	5	Planter Area - Unpaved	Geoprobe/ Direct Push	Second of two borings along perimeter of Building A; side of fume hoods	VOCs
	15				
VP12	5	Planter Area - Unpaved	Geoprobe/ Direct Push	South side of Building D	VOCs
	15				
VP13	5	Planter Area - Unpaved	Geoprobe/ Direct Push	South side of Building E	VOCs
	15				
VP14	5	Asphalt and/or concrete	Geoprobe/ Direct Push	Perimeter of Building G	VOCs
	15				
VP15	5	Asphalt and/or concrete	Geoprobe/ Direct Push	Perimeter of Building G	VOCs
	15				
VP16	5	Unpaved	Geoprobe/ Direct Push	Vicinity of Former Septic Tank/Cesspool	VOCs
	15				

Notes:

VOCs analysis analyzed by EPA Method 8260B.
bgs – below ground surface

PRELIMINARY

Nov 12, 1998

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TABLE 3
Shallow Soil Sample Results - Title 22 Metals
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID	Sample Date	Title 22 Metals by EPA Method 6010B/7471A (mg/kg)																
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
	MDL (mg/kg):	5.0	5.0	5.0	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.00002
	RL (mg/kg):	5.0	5.0	5.0	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0001
RSLs* (mg/kg):	Resident.	310	0.39	15,000	160	70	180,000**	23	3,100	400	390	1,500	390	390	1.6	390	23,000	10
	Comm./Indust.	4,100	1.60	190,000	2,000	800	180,000**	300	41,000	800	5,100	20,000	5,100	5,100	20	5,200	310,000	43
B1-1'	5/28/2013	•	•	•	•	•	•	•	•	9.8	•	•	•	•	•	•	•	•
B1-3'	5/28/2013	•	•	•	•	•	•	•	•	12	•	•	•	•	•	•	•	•
B2-1'	5/28/2013	•	•	•	•	•	•	•	•	11	•	•	•	•	•	•	•	•
B2-3'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B3-1'	5/28/2013	•	•	•	•	•	•	•	•	12	•	•	•	•	•	•	•	•
B3-3'	5/28/2013	•	•	•	•	•	•	•	•	12	•	•	•	•	•	•	•	•
B4-1'	5/28/2013	•	•	•	•	•	•	•	•	11	•	•	•	•	•	•	•	•
B4-3'	5/28/2013	•	•	•	•	•	•	•	•	12	•	•	•	•	•	•	•	•
B5-1'	5/28/2013	•	•	•	•	•	•	•	•	52	•	•	•	•	•	•	•	•
B5-3'	5/28/2013	•	•	•	•	•	•	•	•	11	•	•	•	•	•	•	•	•
B6-1'	5/28/2013	•	•	•	•	•	•	•	•	5.7	•	•	•	•	•	•	•	•
B6-3'	5/28/2013	•	•	•	•	•	•	•	•	10	•	•	•	•	•	•	•	•
B7-1'	5/28/2013	•	•	•	•	•	•	•	•	50	•	•	•	•	•	•	•	•
B7-3'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B8-1'	5/28/2013	•	•	•	•	•	•	•	•	24	•	•	•	•	•	•	•	•
B8-3'	5/28/2013	•	•	•	•	•	•	•	•	72	•	•	•	•	•	•	•	•
B9-1'	5/28/2013	•	•	•	•	•	•	•	•	22	•	•	•	•	•	•	•	•
B9-3'	5/28/2013	•	•	•	•	•	•	•	•	14	•	•	•	•	•	•	•	•
B10-1'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B10-3'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B11-1'	5/28/2013	•	•	•	•	•	•	•	•	13	•	•	•	•	•	•	•	•
B11-3'	5/28/2013	•	•	•	•	•	•	•	•	17	•	•	•	•	•	•	•	•
B12-1'	5/28/2013	•	•	•	•	•	•	•	•	27	•	•	•	•	•	•	•	•
B12-3'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B13-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B13-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B14-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B14-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B15-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B15-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B16-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B16-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B17-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B17-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B18-1'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B18-3'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B19-1'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B19-3'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B20-1'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B20-3'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B21-1'	5/28/2013	4.6J	ND	263	ND	3.4	22.5	17	22	18	ND	22	ND	ND	ND	42	77	0.024
B21-3'	5/28/2013	3.7J	ND	254	ND	3.0J	20	16	18	14	ND	24	ND	ND	ND	34	61	0.015
B22-1'	5/28/2013	2.9J	ND	170	ND	2.6J	18	10	15	48	ND	16	ND	7.4J	ND	26	191	0.042
B22-3'	5/28/2013	3.6J	ND	301	ND	2.4J	16.4	14	15	11	ND	18	ND	ND	ND	28	48	0.013

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TABLE 3
Shallow Soil Sample Results - Title 22 Metals
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID	Sample Date	Title 22 Metals by EPA Method 6010B/7471A (mg/kg)																
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
	MDL (mg/kg):	5.0	5.0	5.0	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.00002
	RL (mg/kg):	5.0	5.0	5.0	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0001
RSLs* (mg/kg):	Resident.	310	0.39	15,000	160	70	180,000**	23	3,100	400	390	1,500	390	390	1.6	390	23,000	10
	Comm./Indust.	4,100	1.60	190,000	2,000	800	180,000**	300	41,000	800	5,100	20,000	5,100	5,100	20	5,200	310,000	43
B23-1'	5/29/2013	3.3J	ND	218	ND	3.3	20	15	21	39	ND	20	ND	ND	ND	31	124	0.048
B23-3'	5/29/2013	4.0J	ND	300	ND	4	23	20	22	15	ND	24	ND	ND	ND	38	79	0.021
B24-1'	5/29/2013	3.3J	ND	205	ND	3.2	19	16	18	42	ND	20	ND	ND	ND	30	93	0.024
B24-3'	5/29/2013	4.2J	ND	296	ND	4.1	23	21	22	15	ND	24	ND	ND	ND	37	78	0.023
B25-1'	5/28/2013	3.3J	ND	194	ND	2.42J	16.4	13.5	13.5	10.5	ND	16.6	ND	ND	ND	28	48	0.009
B25-3'	5/28/2013	4.2J	ND	281	ND	3.0J	23	16	19	13	ND	24	ND	ND	ND	37	60	0.013
B26-1'	5/28/2013	1.3J	ND	61	ND	1.1J	7.8	5.5	11.6	6	ND	9.3	ND	ND	ND	18	26	0.021
B26-3'	5/28/2013	3.1J	ND	195	ND	2.9J	18	15	13	11	ND	20	ND	ND	ND	31	56	0.0.12
B27-1'	5/29/2013	2.7J	ND	190	ND	3.1	18	14	14	12	0.50J	20	ND	ND	ND	30	59	0.020
B27-3'	5/29/2013	3.8J	ND	256	ND	3.6	23	18	20	14	ND	23	ND	ND	ND	35	74	0.020
B28-1'	5/29/2013	2.0J	ND	99	ND	1.8J	10	7.8	7.7J	6.7	0.44J	12.3	ND	ND	ND	19	36	0.0093
B28-3'	5/29/2013	4.0J	ND	263	ND	3.7	22	19	21	18	ND	22	ND	ND	ND	35	78	0.019

NOTES:
mg/kg = milligrams per kilogram
ND = Not Detected; below MDL
MDL = Method Detection Limit
RL = Reporting Limit
J = Concentration above the MDL and below the RL
• = Not Analyzed
*EPA Region 9 Regioanl Screenig Levels (RSLs) for residential and commercial settings
**No RSL information available; Protection of groundwater Soil Screening Level (SSL) based on maxiumum contaminant level (MCL) provided for reference

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TABLE 4
Shallow Soil Sample Results - OCPs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

OCPs by EPA Method 8081A	CHHSLs* (µg/kg)				Sample ID:	B13-1'	B13-3'	B14-1'	B14-3'	B15-1'	B15-3'	B16-1'	B16-3'
					Date:	5/29/2013	5/29/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013
	Resident.	Comm./ Indust.	MDL	MRL		OCP Concentraiton (µg/kg)							
2,4'-DDD	2,300	9,000	21 - 25	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDE	—	—	21 - 25	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	1,600	6,300	21 - 25	21 - 25		ND	ND	ND	ND	ND	ND	ND	190
4,4´-DDD	—	—	4.0 - 4.8	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
4,4´-DDE	1,600	6,300	6.3 - 7.7	21 - 25		40	ND	ND	ND	ND	15	ND	740
4,4´-DDT	1,600	6,300	4.5 - 5.5	21 - 25		10	ND	ND	ND	ND	7.8	ND	270
Aldrin	—	—	9.5 - 12	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
alpha-BHC	—	—	11 - 15	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	—	—	11 - 13	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
beta-BHC	NA	NA	6.5 - 7.9	21 - 25		ND	ND	ND	ND	ND	ND	ND	37
Chlordane (tech)	—	—	84 - 100	410 - 500		ND	ND	ND	ND	ND	ND	ND	ND
cis-Nonachlor	—	—	21 - 25	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
DCPA	—	—	21 - 25	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC	—	—	4.7 - 5.7	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	—	—	6.2 - 7.5	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	—	—	4.7 - 5.7	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	—	—	2.6 - 3.2	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	—	—	4.4 - 5.5	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Endrin	—	—	11 - 13	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	—	—	5.8 - 7.0	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Endrin ketone	—	—	3.8 - 4.6	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane	—	—	11 - 13	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane	—	—	8.2 - 10	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	—	—	11 - 14	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	—	—	7.5 - 9.1	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Kepone	—	—	180 - 220	410 - 500		ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	—	—	4.5 - 5.5	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Mirex	—	—	6.4 - 7.8	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Oxychlordane	—	—	21 - 25	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	460	1,800	71 - 85	620 - 750		ND	ND	ND	ND	ND	ND	ND	2,400
trans-Nonachlor	—	—	21 - 25	21 - 25		ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
OCPs = Organochlorine Pesticides
MDL = Method Detection Limit
MRL = Method Reporting Limit
µg/kg = micrograms per kilogram
ND = Not detected at or above the MDL
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of OCPs

Indicates concentration exeeds the commercial/industrial CHHSL

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TABLE 4
Shallow Soil Sample Results - OCPs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

OCPs by EPA Method 8081A	CHHSLs* (µg/kg)		Sample ID:		B18-1	B18-3	B19-1	B19-3	B20-1	B20-3	B28-1	B28-3
			Date:		5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013
	Resident.	Comm./ Indust.	MDL:	MRL:	OCP Concentraiton (µg/kg)							
2,4'-DDD	**2,300**	**9,000**	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	**36**
2,4'-DDE	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	**1,600**	**6,300**	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	**94**
4,4´-DDD	—	—	4.0 - 4.8	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
4,4´-DDE	**1,600**	**6,300**	6.3 - 7.7	21 - 25	ND	ND	ND	ND	ND	ND	ND	**440**
4,4´-DDT	**1,600**	**6,300**	4.5 - 5.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	**260**
Aldrin	—	—	9.5 - 12	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
alpha-BHC	—	—	11 - 15	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	—	—	11 - 13	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
beta-BHC	**NA**	**NA**	6.5 - 7.9	21 - 25	ND	ND	ND	ND	ND	ND	ND	**42**
Chlordane (tech)	—	—	84 - 100	410 - 500	ND	ND	ND	ND	ND	ND	ND	ND
cis-Nonachlor	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
DCPA	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC	—	—	4.7 - 5.7	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	—	—	6.2 - 7.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	—	—	4.7 - 5.7	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	—	—	2.6 - 3.2	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	—	—	4.4 - 5.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	—	—	11 - 13	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	—	—	5.8 - 7.0	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endrin ketone	—	—	3.8 - 4.6	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane	—	—	11 - 13	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane	—	—	8.2 - 10	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	—	—	11 - 14	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	—	—	7.5 - 9.1	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Kepone	—	—	180 - 220	410 - 500	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	—	—	4.5 - 5.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	—	—	6.4 - 7.8	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Oxychlordane	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	**460**	**1,800**	71 - 85	620 - 750	ND	ND	ND	ND	ND	ND	ND	**1,500**
trans-Nonachlor	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
OCPs = Organochlorine Pesticides
MDL = Method Detection Limit
MRL = Method Reporting Limit
µg/kg = micrograms per kilogram
ND = Not detected at or above the MDL
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of OCPs

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TABLE 5
Shallow Soil Sample Results - PCBs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID	Sample Date	PCBs by EPA Method 8082 (mg/kg)					
		PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260
	MDL (mg/kg):	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**
	PQL (mg/kg):	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
B23-1'	5/29/2013	ND	ND	ND	ND	ND	ND
B23-3'	5/29/2013	ND	ND	ND	ND	ND	ND
B24-1'	5/28/2013	ND	ND	ND	ND	ND	ND
B24-3'	5/28/2013	ND	ND	ND	ND	ND	ND
B25-1'	5/28/2013	ND	ND	ND	ND	ND	ND
B25-3'	5/28/2013	ND	ND	ND	ND	ND	ND
B26-1'	5/28/2013	ND	ND	ND	ND	ND	ND
B26-3'	5/28/2013	ND	ND	ND	ND	ND	ND
B27-1'	5/29/2013	ND	ND	ND	ND	ND	ND
B27-3'	5/29/2013	ND	ND	ND	ND	ND	ND
B28-1'	5/29/2013	ND	ND	ND	ND	ND	ND
B28-3'	5/29/2013	ND	ND	ND	ND	ND	ND

NOTES:
PCB = Polychlorinated Biphenyls
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
mg/kg = milligrams per kilogram
ND = Indicates constituents not detected; below MDL

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TABLE 6
Shallow Soil Sample Results - TPH
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID	Sample Date	TPH by EPA Method 8015M (mg/kg)			
		TEPH (C9-C36)	GRO (C4-C12)	DRO (C10-28)	Motor Oil (C29-C36)
MDL (mg/kg):		**4**	**1.1**	**29**	**35**
PQL (mg/kg):		**20**	**5.5**	**145**	**175**
B21-1'	05/28/13	**12.6J**	ND	ND	ND
B21-3'	05/28/13	ND	ND	ND	ND
B22-1'	05/28/13	**12.6J**	ND	ND	ND
B22-3'	05/28/13	ND	ND	ND	ND
B23-1'	05/29/13	ND	ND	ND	ND
B23-3'	05/29/13	**4.2J**	ND	ND	ND
B24-1'	05/29/13	**60.6**	ND	ND	**60.6J**
B24-3'	05/29/13	**4.4J**	ND	ND	ND
B25-1'	05/28/13	**12.5J**	ND	ND	ND
B25-3'	05/28/13	ND	ND	ND	ND
B26-1'	05/28/13	**4.4J**	ND	ND	ND
B26-3'	05/28/13	ND	ND	ND	ND
B27-1'	05/29/13	**4.0J**	ND	ND	ND
B27-3'	05/29/13	**13.1J**	ND	ND	ND
B28-1'	05/29/13	ND	ND	ND	ND
B28-3'	05/29/13	ND	ND	ND	ND
B29-1'	05/28/13	**12.6J**	ND	ND	ND
B29-3'	05/28/13	**4.1J**	ND	ND	ND
B30-1'	05/28/13	**12.7J**	ND	ND	ND
B30-3'	05/28/13	**12.4J**	ND	ND	ND
Maximum Soil Screening Levels* (mg/kg):		**—**	**1,000**	**10,000**	**50,000**

NOTES:
ND = Indicates constituents not detected; below MDL
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Concentration above the MDL but below the PQL
TEPH = total extractable petroleum hydrocarbons
TPH = total petroleum hydrocarbons
GRO = gasoline range organics
DRO = diesel range organics
mg/kg = milligrams per kilogram
— = information not available
* The LARWQCB Maximum Soil Screening Levels are are provided for TPH in soil above drinking water aquifers greater than 150 bgs (LARWQCB Table 4-1, May 1996)

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TABLE 7
Shallow Soil Sample Results - SVOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

SVOCs (by EPA Method 8270)	RSLs Soil* (mg/kg) Residential	RSLs Soil* (mg/kg) Comm./ Indust.	Sample ID: Date: MDL	MRL	EPA-1 5/28/2016	EPA-2 5/28/2016	EPA-3 5/28/2016	EPA-4 5/28/2016	EPA-5 5/28/2016
					SVOC Concentration (mg/kg)				
1,2,4-Trichlorobenzene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dichlorophenol	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dimethylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dinitrophenol	—	—	3.4 - 3.8	22 - 25	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloronaphthalene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chlorophenol	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylnaphthalene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitrophenol	—	—	0.19 - 0.22	0.44 - 0.50	ND	ND	ND	ND	ND
3 & 4Methylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	—	—	1.3 - 1.5	2.2 - 2.5	ND	ND	ND	ND	ND
3-Nitroaniline	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	—	—	1.4 - 1.5	4.4 - 5.0	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitrophenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthylene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Aniline	—	—	0.2 - 0.23	0.44 - 0.50	ND	ND	ND	ND	ND
Anthracene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Azobenzene/1,2-Diphenylhydrazine	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Benzidine	—	—	1.1 - 1.3	4.4 - 5.0	ND	ND	ND	ND	ND
Benzo(a)anthracene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(a)pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NA	NA	0.053 - 0.060	0.88 - 1.0	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Benzoic acid	—	—	1.7 - 1.9	22 - 25	ND	ND	ND	ND	ND
Benzyl alcohol	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Butyl benzyl phthalate	260	910	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Carbazole	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Chrysene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.015	0.21	0.044 - 0.050	0.88 - 1.0	0.099J	ND	ND	ND	ND
Dibenzofuran	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Diethyl phthalate	—	—	0.053 - 0.060	0.44 - 0.50	ND	ND	ND	ND	ND
Dimethyl phthalate	—	—	0.78 - 0.88	2.2 - 2.5	ND	ND	ND	ND	ND
Di-n-butyl phthalate	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Di-n-octyl phthalate	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Fluoranthene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Fluorene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorocydopentadiene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachloroethane	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.15	2.1	0.080 - 0.090	0.88 - 1.0	0.15J	ND	ND	ND	ND
Isophorone	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Naphthalene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Nitrobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Pentachlorophenol	0.89	2.7	0.14 - 0.16	0.44 - 0.50	0.39J	ND	ND	ND	ND
Phenanthrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Phenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Pyridine	—	—	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND

NOTES:
SVOC = Semivolatile Organic Compound
MDL = Method Detection Limit
MRL = Method Reporting Limit
ND = Indicated constituents not detected; below method detection limit
mg/kg = milligrams per kilogram
J = Analyte detected. However, concentration is an estimated value, between the MDL and the MRL
RSLs = Regional Screening Levels
NA = Information not available
— = Not applicable
*EPA Region 9 Regional Screenig Levels (RSLs) for residential and commercial settings, information provided for detected concentrations of SVOCs

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ALTA ENVIRONMENTAL

TABLE 7
Shallow Soil Sample Results - SVOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

SVOCs by EPA Method 8270C	RSLs Soil* (mg/kg)		Sample ID		B23-3'	B24-1'	B24-3'	B25-1'	B25-3'
			Date		5/29/2018	5/29/2018	5/29/2018	5/28/2018	5/28/2018
	Resident	Comm./Indust.	MDL	MRL	SVOC Concentration (mg/kg)				
1,2,4-Trichlorobenzene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
1,3-Dichforobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,6-Trichloropheno/	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dichlorophenol	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dimethylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dinitrophenol	—	—	3.4 - 3.8	22 - 25	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloronaphthalene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chlorophenol	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylnaphthalene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitrophenol	—	—	0.19 - 0.22	0.44 - 0.50	ND	ND	ND	ND	ND
3 & 4Methylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	—	—	1.3 - 1.5	2.2 - 2.5	ND	ND	ND	ND	ND
3-Nitroaniline	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	—	—	1.4 - 1.5	4.4 - 5.0	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitrophenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthylene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Aniline	—	—	0.2 - 0.23	0.44 - 0.50	ND	ND	ND	ND	ND
Anthracene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Azobenzene/1,2-Diphenylhydrazine	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Benzidine	—	—	1.1 - 1.3	4.4 - 5.0	ND	ND	ND	ND	ND
Benzo(a)anthracene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(a)pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NA	NA	0.053 - 0.060	0.88 - 1.0	ND	ND	ND	0.11J	ND
Benzo(k)fluoranthene	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Benzoic acid	—	—	1.7 - 1.9	22 - 25	ND	ND	ND	ND	ND
Benzyl alcohol	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Butyl benzyl phthalate	260	910	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	0.28J	ND
Carbazole	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Chrysene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.015	0.21	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND
Dibenzofuran	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Diethyl phthalate	—	—	0.053 - 0.060	0.44 - 0.50	ND	ND	ND	ND	ND
Dimethyl phthalate	—	—	0.78 - 0.88	2.2 - 2.5	ND	ND	ND	ND	ND
Di-n-butyl phthalate	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Di-n-octyl phthalate	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Fluoranthene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Fluorene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorocydopentadiene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachloroethane	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.15	2.1	0.080 - 0.090	0.88 - 1.0	ND	ND	ND	0.15J	ND
Isophorone	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Naphthalene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Nitrobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Pentachlorophenol	0.89	2.7	0.14 - 0.16	0.44 - 0.50	ND	ND	ND	ND	ND
Phenanthrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Phenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Pyridine	—	—	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND

NOTES:

SVOC = Semivolatile Organic Compound
MDL = Method Detection Limit
MRL = Method Reporting Limit
ND = Indicated constituents not detected; below method detection limit
mg/kg = milligrams per kilogram
J = Analyte detected. However, concentration is an estimated value, between the MDL and the MRL
RSLs = Regional Screening Levels
NA = Information not available
— = Not applicable
*EPA Region 9 Regioanl Screenig Levels (RSLs) for residential and commercial settings, information provided for detected concentrations of SVOCs

PRELIMINARY

ALTA ENVIRONMENTAL

TABLE 7
Shallow Soil Sample Results - SVOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

SVOCs by EPA Method 8270C	RSLs Soil* (mg/kg) Resident	RSLs Soil* (mg/kg) Comm./Indust.		Sample ID: Date:	B25-1 5/28/2013	B26-1 5/28/2013	B27-1 5/28/2013	B27-3 5/28/2013	B44-1 5/28/2013
			MDL	MRL	SVOC Concentration (mg/kg)				
1,2,4-Trichlorobenzene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dichlorophenol	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dimethylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dinitrophenol	—	—	3.4 - 3.8	22 - 25	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloronaphthalene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chlorophenol	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylnaphthalene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitrophenol	—	—	0.19 - 0.22	0.44 - 0.50	ND	ND	ND	ND	ND
3 & 4Methylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	—	—	1.3 - 1.5	2.2 - 2.5	ND	ND	ND	ND	ND
3-Nitroaniline	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	—	—	1.4 - 1.5	4.4 - 5.0	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitrophenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthylene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Aniline	—	—	0.2 - 0.23	0.44 - 0.50	ND	ND	ND	ND	ND
Anthracene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Azobenzene/1,2-Diphenylhydrazine	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Benzidine	—	—	1.1 - 1.3	4.4 - 5.0	ND	ND	ND	ND	ND
Benzo(a)anthracene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(a)pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NA	NA	0.053 - 0.060	0.88 - 1.0	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Benzoic acid	—	—	1.7 - 1.9	22 - 25	ND	ND	ND	ND	ND
Benzyl alcohol	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Butyl benzyl phthalate	260	910	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Carbazole	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Chrysene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.015	0.21	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND
Dibenzofuran	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Diethyl phthalate	—	—	0.053 - 0.060	0.44 - 0.50	ND	ND	ND	ND	ND
Dimethyl phthalate	—	—	0.78 - 0.88	2.2 - 2.5	ND	ND	ND	ND	ND
Di-n-butyl phthalate	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Di-n-octyl phthalate	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Fluoranthene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Fluorene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorocydopentadiene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachloroethane	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.15	2.1	0.080 - 0.090	0.88 - 1.0	ND	ND	ND	ND	ND
Isophorone	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Naphthalene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Nitrobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Pentachlorophenol	0.89	2.7	0.14 - 0.16	0.44 - 0.50	ND	ND	ND	ND	ND
Phenanthrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Phenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Pyridine	—	—	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND

NOTES:
SVOC = Semivolatile Organic Compound
MDL = Method Detection Limit
MRL = Method Reporting Limit
ND = Indicated constituents not detected; below method detection limit
mg/kg = milligrams per kilogram
J = Analyte detected. However, concentration is an estimated value, between the MDL and the MRL
RSLs = Regional Screening Levels
NA = Information not available
— = Not applicable
*EPA Region 9 Regional Screenig Levels (RSLs) for residential and commercial settings, information provided for detected concentrations of SVOCs

PRELIMINARY

ALTA ENVIRONMENTAL

TABLE 7
Shallow Soil Sample Results - SVOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

SVOCs by EPA Method 8270C	RSLs Soil* (mg/kg) Resident	RSLs Soil* (mg/kg) Comm/ Indust.	Sample ID: Date MDL	Sample ID: Date MRL	B2B-1 5/28/2013	B2B-2 5/28/2013	B2B-3 5/28/2013	B4B-1 5/28/2013	B4B-2 5/28/2013
					SVOC Concentration (mg/kg)				
1,2,4-Trichlorobenzene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
1,3-Dichforobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dichlorophenol	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dimethylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dinitrophenol	—	—	3.4 - 3.8	22 - 25	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloronaphthalene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chlorophenol	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylnaphthalene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitrophenol	—	—	0.19 - 0.22	0.44 - 0.50	ND	ND	ND	ND	ND
3 & 4Methylphenol	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	—	—	1.3 - 1.5	2.2 - 2.5	ND	ND	ND	ND	ND
3-Nitroaniline	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	—	—	1.4 - 1.5	4.4 - 5.0	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitrophenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthylene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Aniline	—	—	0.2 - 0.23	0.44 - 0.50	ND	ND	ND	ND	ND
Anthracene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Azobenzene/1,2-Diphenylhydrazine	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Benzidine	—	—	1.1 - 1.3	4.4 - 5.0	ND	ND	ND	ND	ND
Benzo(a)anthracene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(a)pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NA	NA	0.053 - 0.060	0.88 - 1.0	ND	0.12J	ND	ND	ND
Benzo(k)fluoranthene	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Benzoic acid	—	—	1.7 - 1.9	22 - 25	ND	ND	ND	ND	ND
Benzyl alcohol	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Butyl benzyl phthalate	260	910	0.13 - 0.15	0.44 - 0.50	0.29J	ND	ND	ND	ND
Carbazole	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Chrysene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.015	0.21	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND
Dibenzofuran	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Diethyl phthalate	—	—	0.053 - 0.060	0.44 - 0.50	ND	ND	ND	ND	ND
Dimethyl phthalate	—	—	0.78 - 0.88	2.2 - 2.5	ND	ND	ND	ND	ND
Di-n-butyl phthalate	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Di-n-octyl phthalate	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Fluoranthene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Fluorene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorocydopentadiene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachloroethane	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.15	2.1	0.080 - 0.090	0.88 - 1.0	ND	0.17J	ND	ND	ND
Isophorone	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Naphthalene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Nitrobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Pentachlorophenol	0.89	2.7	0.14 - 0.16	0.44 - 0.50	ND	ND	ND	ND	ND
Phenanthrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Phenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Pyridine	—	—	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND

NOTES:
SVOC = Semivolatile Organic Compound
MDL = Method Detection Limit
MRL = Method Reporting Limit
ND = Indicated constituents not detected; below method detection limit
mg/kg = milligrams per kilogram
J = Analyte detected. However, concentration is an estimated value, between the MDL and the MRL
RSLs = Regional Screening Levels
NA = Information not available
— = Not applicable
*EPA Region 9 Regional Screenig Levels (RSLs) for residential and commercial settings, information provided for detected concentrations of SVOCs

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TABLE 6
Shallow Soil Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	Sample ID		B25-2	B24-3	B25-1	B25-3
	Date		5/23/2016	5/23/2016	5/23/2016	5/23/2016
	MDL	PQL	VOC Concentration (µg/kg)			
Acetone	32	160	ND	ND	ND	ND
tert-Amyl methyl ether (TAME)	23	115	ND	ND	ND	ND
Benzene	26	130	ND	ND	ND	ND
Bromobenzene	26	130	ND	ND	ND	ND
Bromochloromethane	24	120	ND	ND	ND	ND
Bromodichloramethane	22	110	ND	ND	ND	ND
Bromoform	23	115	ND	ND	ND	ND
Bromomethane	20	100	ND	ND	ND	ND
Methyl ethyl ketone (MEK)	26	130	ND	ND	ND	ND
tert-Butyl alcohol (TBA)	373	1865	ND	ND	ND	ND
Butylbenzene	29	145	ND	ND	ND	ND
sec-Butylbenzene	27	135	ND	ND	ND	ND
tert-Butylbenzene	29	145	ND	ND	ND	ND
tert-Butyl ethyl ether (ETBE)	20	100	ND	ND	ND	ND
Carbon disulfide	116	580	ND	ND	ND	ND
Carbon Tetrachloride	32	160	ND	ND	ND	ND
Chlorobenzene	28	140	ND	ND	ND	ND
Chloroethane	42	210	ND	ND	ND	ND
2-Chloroethyl vinyl ether	23	115	ND	ND	ND	ND
Chloroform	30	150	ND	ND	ND	ND
Chloromethane	70	350	ND	ND	ND	ND
2-Chlorotoluene	27	135	ND	ND	ND	ND
4-ChlorotoJuene	28	140	ND	ND	ND	ND
Dibromochloromethane	25	125	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	31	155	ND	ND	ND	ND
1,2-Dibromoethane	23	115	ND	ND	ND	ND
Dibromomethane	33	165	ND	ND	ND	ND
1,2-Dichlorobenzene	27	135	ND	ND	ND	ND
1,3-Dichlorobenzene	27	135	ND	ND	ND	ND
1 A-Dichlorobenzene	33	165	ND	ND	ND	ND
Dichlorodifluoromethane	37	185	ND	ND	ND	ND
1,1-Dichloroethane	29	145	ND	ND	ND	ND
1,2-Dichloroethane	22	110	ND	ND	ND	ND
1,1-Dichloroethene	28	140	ND	ND	ND	ND
cis-1,2-Dichloroethene	26	130	ND	ND	ND	ND
trans-1,2-Dichloroethene	32	160	ND	ND	ND	ND
1,2-Dichloropropane	22	110	ND	ND	ND	ND
1,3-Dichloropropane	21	105	ND	ND	ND	ND
2,2-Dichloropropane	38	190	ND	ND	ND	ND
1,1-Dichloropropene	27	135	ND	ND	ND	ND
cis-1,3-Dichloropropene	26	130	ND	ND	ND	ND
trans-1,3-Dichloropropene	29	145	ND	ND	ND	ND
Diisopropyl ether (DIPE)	26	130	ND	ND	ND	ND
Ethylbenzene	30	150	ND	ND	ND	ND
Hexachlorobutadiene	44	220	ND	ND	ND	ND
2-Hexanone	21	105	ND	ND	ND	ND
Isopropylbenzene	33	165	ND	ND	ND	ND
p-Isopropyltoluene	28	140	ND	ND	ND	ND
Methyl-t-butyl ether (MTBE)	23	115	ND	ND	ND	ND
Methylene chloride	31	155	ND	ND	ND	ND
Iodomethane	20	100	ND	ND	ND	ND
Methyl isobutyl ketone (MIBK)	19	95	ND	ND	ND	ND
Naphthalene	30	150	ND	ND	ND	ND
Propylbenzene	30	150	ND	ND	ND	ND
Styrene	33	165	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	23	115	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	40	200	ND	ND	ND	ND
Tetrachloroethylene (PCE)	27	135	ND	ND	ND	ND
Toluene	25	125	ND	ND	ND	ND
1,2,3-Trichlorobenzene	29	145	ND	ND	ND	ND
1,2,4-Trichlorobenzene	31	155	ND	ND	ND	ND
1,1,1-Trichloroethane	26	130	ND	ND	ND	ND
1,1,2-Trichloroethane	23	115	ND	ND	ND	ND
Trichloroethylene (TCE)	24	120	ND	ND	ND	ND
Trichlorofluoromethane	35	175	ND	ND	ND	ND
1,2,3-Trichloropropane	22	110	ND	ND	ND	ND
1,2,4-Trimethylbenzene	25	125	ND	ND	ND	ND
1,3,5-Trimethylbenzene	28	140	ND	ND	ND	ND
Vinyl acetate	52	260	ND	ND	ND	ND
Vinyl Chloride (Chloroethene)	36	180	ND	ND	ND	ND
m & p-Xylene	75	375	ND	ND	ND	ND
o-Xylene	28	140	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
ND = Indicated constituents not detected; below method detection limit
µg/kg = micrograms per kilogram

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TABLE 6
Shallow Soil Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	Sample ID: Date:		B27-1 5/21/2013	B27-2 5/21/2013	B28-1 5/21/2013	B28-2 5/21/2013
	MDL	PQL	VOC Concentration (µg/kg)			
Acetone	32	160	ND	ND	ND	ND
tert-Amyl methyl ether (TAME)	23	115	ND	ND	ND	ND
Benzene	26	130	ND	ND	ND	ND
Bromobenzene	26	130	ND	ND	ND	ND
Bromochloromethane	24	120	ND	ND	ND	ND
Bromodichloramethane	22	110	ND	ND	ND	ND
Bromoform	23	115	ND	ND	ND	ND
Bromomethane	20	100	ND	ND	ND	ND
Methyl ethyl ketone (MEK)	26	130	ND	ND	ND	ND
tert-Butyl alcohol (TBA)	373	1865	ND	ND	ND	ND
Butylbenzene	29	145	ND	ND	ND	ND
sec-Butylbenzene	27	135	ND	ND	ND	ND
tert-Butylbenzene	29	145	ND	ND	ND	ND
tert-Butyl ethyl ether (ETBE)	20	100	ND	ND	ND	ND
Carbon disulfide	116	580	ND	ND	ND	ND
Carbon Tetrachloride	32	160	ND	ND	ND	ND
Chlorobenzene	28	140	ND	ND	ND	ND
Chloroethane	42	210	ND	ND	ND	ND
2-Chloroethyl vinyl ether	23	115	ND	ND	ND	ND
Chloroform	30	150	ND	ND	ND	ND
Chloromethane	70	350	ND	ND	ND	ND
2-Chlorotoluene	27	135	ND	ND	ND	ND
4-ChlorotoJuene	28	140	ND	ND	ND	ND
Dibromochloromethane	25	125	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	31	155	ND	ND	ND	ND
1,2-Dibromoethane	23	115	ND	ND	ND	ND
Dibromomethane	33	165	ND	ND	ND	ND
1,2-Dichlorobenzene	27	135	ND	ND	ND	ND
1,3-Dichlorobenzene	27	135	ND	ND	ND	ND
1 A-Dichlorobenzene	33	165	ND	ND	ND	ND
Dichlorodifluoromethane	37	185	ND	ND	ND	ND
1,1-Dichloroethane	29	145	ND	ND	ND	ND
1,2-Dichloroethane	22	110	ND	ND	ND	ND
1,1-Dichloroethene	28	140	ND	ND	ND	ND
cis-1,2-Dichloroethene	26	130	ND	ND	ND	ND
trans-1,2-Dichloroethene	32	160	ND	ND	ND	ND
1,2-Dichloropropane	22	110	ND	ND	ND	ND
1,3-Dichloropropane	21	105	ND	ND	ND	ND
2,2-Dichloropropane	38	190	ND	ND	ND	ND
1,1-Dichloropropene	27	135	ND	ND	ND	ND
cis-1,3-Dichloropropene	26	130	ND	ND	ND	ND
trans-1,3-Dichloropropene	29	145	ND	ND	ND	ND
Diisopropyl ether (DIPE)	26	130	ND	ND	ND	ND
Ethylbenzene	30	150	ND	ND	ND	ND
Hexachlorobutadiene	44	220	ND	ND	ND	ND
2-Hexanone	21	105	ND	ND	ND	ND
Isopropylbenzene	33	165	ND	ND	ND	ND
p-Isopropyltoluene	28	140	ND	ND	ND	ND
Methyl-t-butyl ether (MTBE)	23	115	ND	ND	ND	ND
Methylene chloride	31	155	ND	ND	ND	ND
Iodomethane	20	100	ND	ND	ND	ND
Methyl isobutyl ketone (MIBK)	19	95	ND	ND	ND	ND
Naphthalene	30	150	ND	ND	ND	ND
Propylbenzene	30	150	ND	ND	ND	ND
Styrene	33	165	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	23	115	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	40	200	ND	ND	ND	ND
Tetrachloroethylene (PCE)	27	135	ND	ND	ND	ND
Toluene	25	125	ND	ND	ND	ND
1,2,3-Trichlorobenzene	29	145	ND	ND	ND	ND
1,2,4-Trichlorobenzene	31	155	ND	ND	ND	ND
1,1,1-Trichloroethane	26	130	ND	ND	ND	ND
1,1,2-Trichloroethane	23	115	ND	ND	ND	ND
Trichloroethylene (TCE)	24	120	ND	ND	ND	ND
Trichlorofluoromethane	35	175	ND	ND	ND	ND
1,2,3-Trichloropropane	22	110	ND	ND	ND	ND
1,2,4-Trimethylbenzene	25	125	ND	ND	ND	ND
1,3,5-Trimethylbenzene	28	140	ND	ND	ND	ND
Vinyl acetate	52	260	ND	ND	ND	ND
Vinyl Chloride (Chloroethene)	36	180	ND	ND	ND	ND
m & p-Xylene	75	375	ND	ND	ND	ND
o-Xylene	28	140	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
ND = Indicated constituents not detected; below method detection limit
µg/kg = micrograms per kilogram

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TABLE 9
Soil Vapor Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	CHHSLs* (µg/L)		Sample Id:	VP1-5	VP1-10	VP2-5	VP2-10	VP3-5	VP3-10 P	VP3-10 P	VP3-10 DP
	Resident.	Comm/ Indust.	Date:	5/4/2018	5/4/2018	5/4/2018	5/4/2018	5/4/2018	5/4/2018	5/4/2018	5/4/2018
			PQL:	VOC Concentrations (µg/L)							
Benzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.063	0.21	0.008	ND	ND	ND	ND	ND	0.033	0.014	0.029
Chlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NA	NA	0.008	ND	ND	ND	ND	0.316	0.896	0.81	0.872
Chloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	NA	NA	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	NA	NA	0.008	2.82	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	0.47	1.6	0.008	ND	ND	ND	ND	0.059	0.057	0.048	0.054
Toluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	1.3	4.4	0.008	ND	ND	ND	ND	2.26	2.83	2.55	2.89
Trichlorofluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl-tert-butylether	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropylether	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-amylmethylether	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	—	—	0.040	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

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TABLE 9
Soil Vapor Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	CHHSLs (µg/L)		Sample ID	VP-1	VP-1A	VP-2	VP-3	VP-4	VP-4A	VP-4B	VP-5	VP-5A
	Resident.	Comm./ Indust	Date	(NA)	(NA)	(NA)	(NA)	5/4/2016	5/5/2016	5/4/2016	5/4/2016	5/5/2016
			PQL	VOC Concentrations (µg/L)								
Benzene	—	—	0.008	NO SAMPLE COLLECTED - PROBE LOCATION INACCESSIBLE				ND	ND	ND	ND	
Bromobenzene	—	—	0.008					ND	ND	ND	ND	
Bromodichloromethane	—	—	0.008					ND	ND	ND	ND	
Bromoform	—	—	0.008					ND	ND	ND	ND	
n-Butylbenzene	—	—	0.008					ND	ND	ND	ND	
sec-Butylbenzene	—	—	0.008					ND	ND	ND	ND	
tert-Butylbenzene	—	—	0.008					ND	ND	ND	ND	
Carbon tetrachloride	0.063	0.21	0.008					ND	ND	ND	0.035	
Chlorobenzene	—	—	0.008					ND	ND	ND	ND	
Chloroethane	—	—	0.008					ND	ND	ND	ND	
Chloroform	NA	NA	0.008					ND	0.046	0.022	0.363	
Chloromethane	—	—	0.008					ND	ND	ND	ND	
2-Chlorotoluene	—	—	0.008					ND	ND	ND	ND	
4-Chlorotoluene	—	—	0.008					ND	ND	ND	ND	
Dibromochloromethane	—	—	0.008					ND	ND	ND	ND	
1,2-Dibromo-3-chloropropane	—	—	0.008					ND	ND	ND	ND	
1,2-Dibromoethane (EDB)	—	—	0.008					ND	ND	ND	ND	
Dibromomethane	—	—	0.008					ND	ND	ND	ND	
1,2- Dichlorobenzene	—	—	0.008					ND	ND	ND	ND	
1,3-Dichlorobenzene	—	—	0.008					ND	ND	ND	ND	
1,4-Dichlorobenzene	—	—	0.008					ND	ND	ND	ND	
Dichlorodifluoromethane	—	—	0.008					ND	ND	ND	ND	
1,1-Dichloroethane	—	—	0.008					ND	ND	ND	ND	
1,2-Dichloroethane	—	—	0.008					ND	ND	ND	ND	
1,1-Dichloroethene	NA	NA	0.008					ND	ND	ND	ND	
cis-1,2-Dichloroethene	—	—	0.008					ND	ND	ND	ND	
trans-1,2-Dichloroethene	—	—	0.008					ND	ND	ND	ND	
1,2-Dichloropropane	—	—	0.008					ND	ND	ND	ND	
1,3-Dichloropropane	—	—	0.008					ND	ND	ND	ND	
2,2-Dichloropropane	—	—	0.008					ND	ND	ND	ND	
1,1-Dichloropropene	—	—	0.008					ND	ND	ND	ND	
cis-1,3-Dichloropropene	—	—	0.008					ND	ND	ND	ND	
trans-1,3-Dichloropropene	—	—	0.008					ND	ND	ND	ND	
Ethylbenzene	—	—	0.008					ND	ND	ND	ND	
Freon 113	NA	NA	0.008					0.651	0.964	ND	0.057	
Hexachlorobutadiene	—	—	0.008					ND	ND	ND	ND	
Isopropylbenzene	—	—	0.008					ND	ND	ND	ND	
4-Isopropyltoluene	—	—	0.008					ND	ND	ND	ND	
Methylene chloride	—	—	0.008					ND	ND	ND	ND	
Naphthalene	—	—	0.008					ND	ND	ND	ND	
n-Propylbenzene	—	—	0.008					ND	ND	ND	ND	
Styrene	—	—	0.008					ND	ND	ND	ND	
1,1,1,2-Tetrachloroethane	—	—	0.008					ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	—	—	0.008					ND	ND	ND	ND	
Tetrachloroethylene (PCE)	0.47	1.6	0.008					ND	ND	ND	ND	
Toluene	—	—	0.008					ND	ND	ND	ND	
1,2,3-Trichlorobenzene	—	—	0.008					ND	ND	ND	ND	
1,2,4-Trichlorobenzene	—	—	0.008					ND	ND	ND	ND	
1,1,1-Trichloroethane	—	—	0.008					ND	ND	ND	ND	
1,1,2-Trichloroethane	—	—	0.008					ND	ND	ND	ND	
Trichloroethylene (TCE)	1.3	4.4	0.008					ND	ND	ND	ND	
Trichlorofluoromethane	—	—	0.008					ND	ND	ND	ND	
1,2,3-Trichloropropane	—	—	0.008					ND	ND	ND	ND	
1,2,4-Trimethylbenzene	—	—	0.008					ND	ND	ND	ND	
1,3,5-Trimethylbenzene	—	—	0.008					ND	ND	ND	ND	
Vinyl chloride	—	—	0.008					ND	ND	ND	ND	
Xylenes	—	—	0.008					ND	ND	ND	ND	
MTBE	—	—	0.008					ND	ND	ND	ND	
Ethyl-tert-butylether	—	—	0.008					ND	ND	ND	ND	
Di-isopropylether	—	—	0.008					ND	ND	ND	ND	
tert-amylmethylether	—	—	0.008					ND	ND	ND	ND	
tert-Butylalcohol	—	—	0.040					ND	ND	ND	ND	

NOTES:
VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

PRELIMINARY

ALTA ENVIRONMENTAL

TABLE 9
Soil Vapor Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	CHHSLs* (µg/L)		Sample ID	VP3-5	VP3-15	VP9-5	VP9-5REP	VP9-15	VP10-5	VP10-15	VP11-5
	Resident.	Comm./ Indust.	Date	5/4/2018	5/4/2018	5/4/2018	5/4/2018	5/4/2018	5/4/2018	5/5/2018	5/5/2018
			PQL	VOC Concentrations (µg/L)							
Benzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.063	0.21	0.008	ND	**0.017**	ND	ND	ND	ND	ND	ND
Chlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NA	NA	0.008	**0.153**	**0.454**	ND	ND	ND	ND	ND	ND
Chloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	NA	NA	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	NA	NA	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	0.47	1.6	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	1.3	4.4	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl-tert-butylether	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropylether	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-amylmethylether	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	—	—	0.040	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

PRELIMINARY

ALTA ENVIRONMENTAL

TABLE 9
Soil Vapor Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	CHHSLs* (µg/L)		Sample ID	VP1-4.5	VP105 REP	VP2-4.5	VP2-9.5	VP3-4.5	VP3-9.5	VP4-4.5	VP4-9.5
			Date	5/5/2013	5/5/2013	5/5/2013	5/5/2013	5/5/2013	5/5/2013	5/4/2013	5/4/2013
	Resident.	Comm/ Indust.	PQL	VOC Concentrations (µg/L)							
Benzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.063	0.21	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NA	NA	0.008	ND	ND	**0.039**	ND	ND	ND	ND	ND
Chloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	NA	NA	0.008	ND	ND	ND	ND	ND	**0.118**	ND	ND
cis-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	NA	NA	0.008	**0.068**	ND	**0.184**	**0.529**	**0.203**	**1.13**	ND	ND
Hexachlorobutadiene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	0.47	1.6	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	1.3	4.4	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl-tert-butylether	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropylether	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-amylmethylether	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	—	—	0.040	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

PRELIMINARY

ALTA ENVIRONMENTAL

TABLE 9
Soil Vapor Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	CHHSLs* (µg/L)		Sample ID:	VP1&5	VP1&5	VP1&5	VP1&5-REP	VP1&5
			Date:	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013
	Resident.	Comm./ Indust.	PQL	VOC Concentrations (µg/L)				
Benzene	—	—	0.008	ND	ND	SAMPLE RESULTS NOT YET AVAILABLE	SAMPLE RESULTS NOT YET AVAILABLE	SAMPLE RESULTS NOT YET AVAILABLE
Bromobenzene	—	—	0.008	ND	ND			
Bromodichloromethane	—	—	0.008	ND	ND			
Bromoform	—	—	0.008	ND	ND			
n-Butylbenzene	—	—	0.008	ND	ND			
sec-Butylbenzene	—	—	0.008	ND	ND			
tert-Butylbenzene	—	—	0.008	ND	ND			
Carbon tetrachloride	0.063	0.21	0.008	ND	ND			
Chlorobenzene	—	—	0.008	ND	ND			
Chloroethane	—	—	0.008	ND	ND			
Chloroform	NA	NA	0.008	ND	ND			
Chloromethane	—	—	0.008	ND	ND			
2-Chlorotoluene	—	—	0.008	ND	ND			
4-Chlorotoluene	—	—	0.008	ND	ND			
Dibromochloromethane	—	—	0.008	ND	ND			
1,2-Dibromo-3-chloropropane	—	—	0.008	ND	ND			
1,2-Dibromoethane (EDB)	—	—	0.008	ND	ND			
Dibromomethane	—	—	0.008	ND	ND			
1,2- Dichlorobenzene	—	—	0.008	ND	ND			
1,3-Dichlorobenzene	—	—	0.008	ND	ND			
1,4-Dichlorobenzene	—	—	0.008	ND	ND			
Dichlorodifluoromethane	—	—	0.008	ND	ND			
1,1-Dichloroethane	—	—	0.008	ND	ND			
1,2-Dichloroethane	—	—	0.008	ND	ND			
1,1-Dichloroethene	NA	NA	0.008	ND	ND			
cis-1,2-Dichloroethene	—	—	0.008	ND	ND			
trans-1,2-Dichloroethene	—	—	0.008	ND	ND			
1,2-Dichloropropane	—	—	0.008	ND	ND			
1,3-Dichloropropane	—	—	0.008	ND	ND			
2,2-Dichloropropane	—	—	0.008	ND	ND			
1,1-Dichloropropene	—	—	0.008	ND	ND			
cis-1,3-Dichloropropene	—	—	0.008	ND	ND			
trans-1,3-Dichloropropene	—	—	0.008	ND	ND			
Ethylbenzene	—	—	0.008	ND	ND			
Freon 113	NA	NA	0.008	ND	ND			
Hexachlorobutadiene	—	—	0.008	ND	ND			
Isopropylbenzene	—	—	0.008	ND	ND			
4-Isopropyltoluene	—	—	0.008	ND	ND			
Methylene chloride	—	—	0.008	ND	ND			
Naphthalene	—	—	0.008	ND	ND			
n-Propylbenzene	—	—	0.008	ND	ND			
Styrene	—	—	0.008	ND	ND			
1,1,1,2-Tetrachloroethane	—	—	0.008	ND	ND			
1,1,2,2-Tetrachloroethane	—	—	0.008	ND	ND			
Tetrachloroethylene (PCE)	0.47	1.6	0.008	ND	ND			
Toluene	—	—	0.008	ND	ND			
1,2,3-Trichlorobenzene	—	—	0.008	ND	ND			
1,2,4-Trichlorobenzene	—	—	0.008	ND	ND			
1,1,1-Trichloroethane	—	—	0.008	ND	ND			
1,1,2-Trichloroethane	—	—	0.008	ND	ND			
Trichloroethylene (TCE)	1.3	4.4	0.008	ND	ND			
Trichlorofluoromethane	—	—	0.008	ND	ND			
1,2,3-Trichloropropane	—	—	0.008	ND	ND			
1,2,4-Trimethylbenzene	—	—	0.008	ND	ND			
1,3,5-Trimethylbenzene	—	—	0.008	ND	ND			
Vinyl chloride	—	—	0.008	ND	ND			
Xylenes	—	—	0.008	ND	ND			
MTBE	—	—	0.008	ND	ND			
Ethyl-tert-butylether	—	—	0.008	ND	ND			
Di-isopropylether	—	—	0.008	ND	ND			
tert-amylmethylether	—	—	0.008	ND	ND			
tert-Butylalcohol	—	—	0.040	ND	ND			

NOTES:
VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

PRELIMINARY

ALTA ENVIRONMENTAL

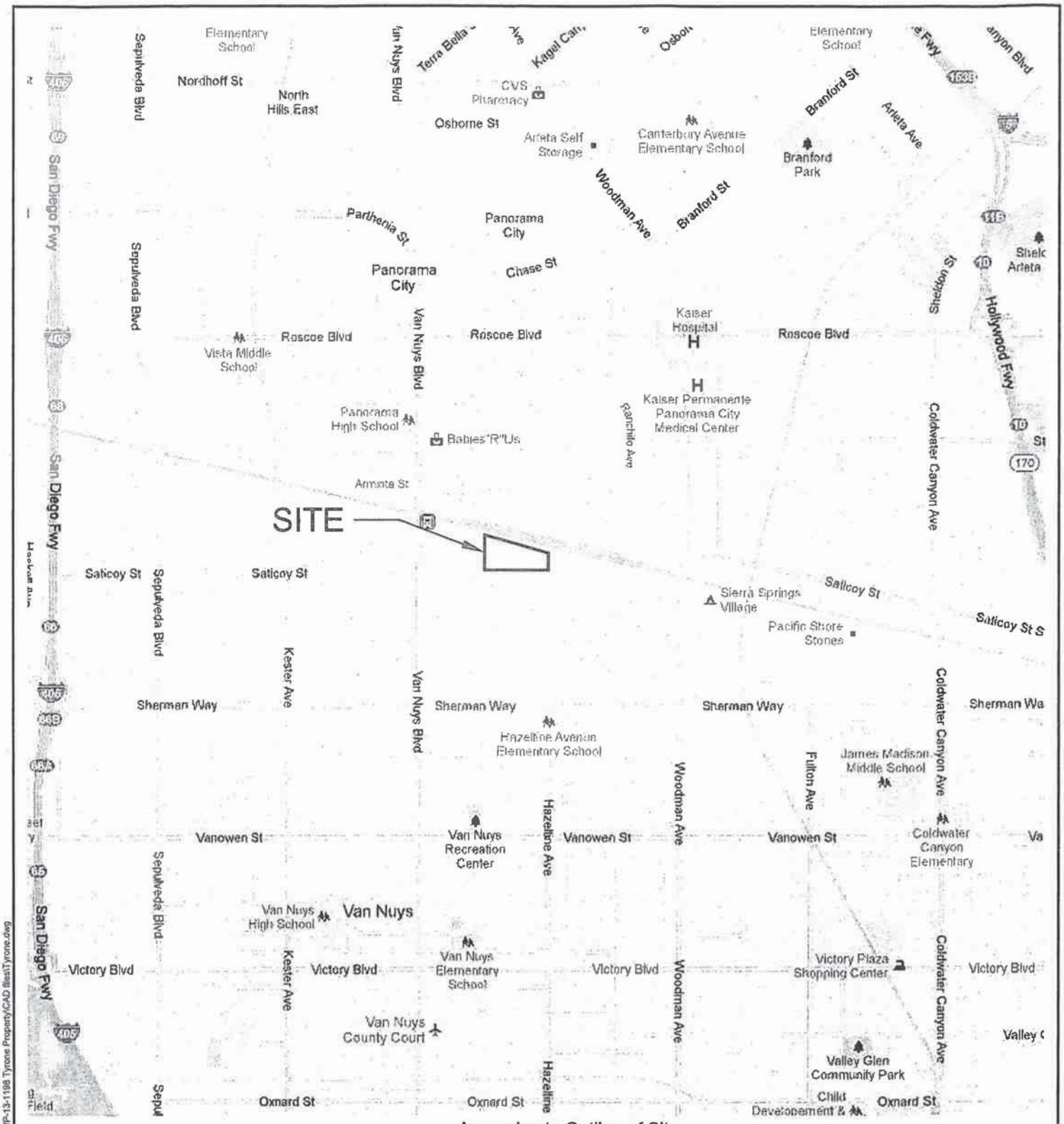


FIGURE 1: Site Location Map

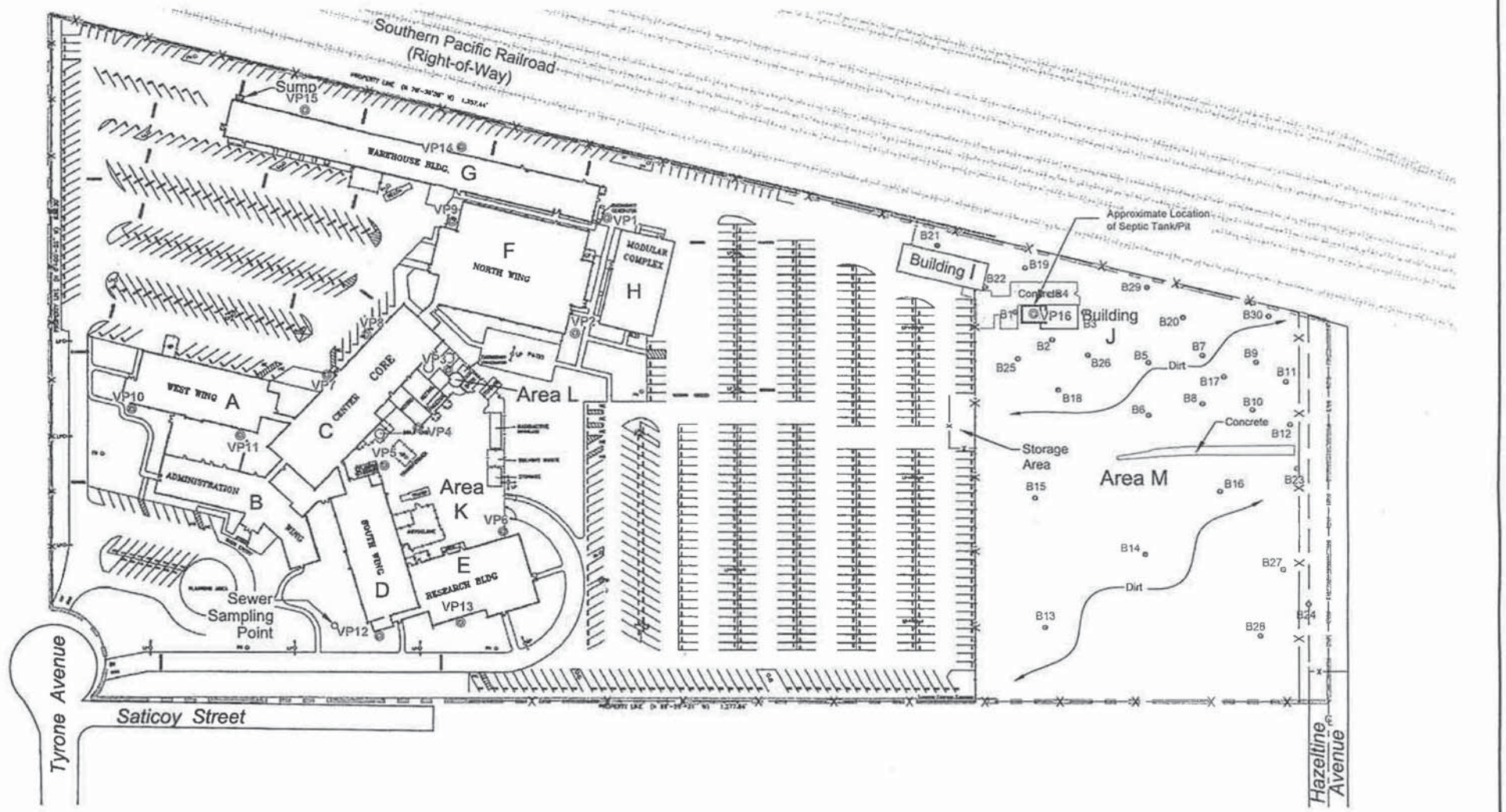
CLIENT: Los Angeles Department of Water and Power	SITE LOCATION: 7600 Tyrone Avenue Van Nuys, California
PROJECT #: LDWP-13-1198	

ALTA ENVIRONMENTAL
3777 Long Beach Blvd., Annex Bldg.
Long Beach, CA 90807
(562) 495-5777 www.altaenviron.com

DRAWN: KD	APPROVED: SM
SCALE: NONE	DATE: 6/13/13

NORTH

W:\Clients H-M\LA City Dept of Water & Power (LDWP)\LDWP-13-1198 Tyrone Property\CAD files\Tyrone.dwg



Explanation

- Site boundary
- Fence
- Fire hydrant (FH)
- Gas pad (GP)
- Light poles (LP, LPO)
- Telephone pole (TP)
- Speed bump
- Handicap (HC)
- VP8 — Soil Vapor Boring Location
- Shallow Soil Boring Location

Note:

All locations are approximate.

NORTH

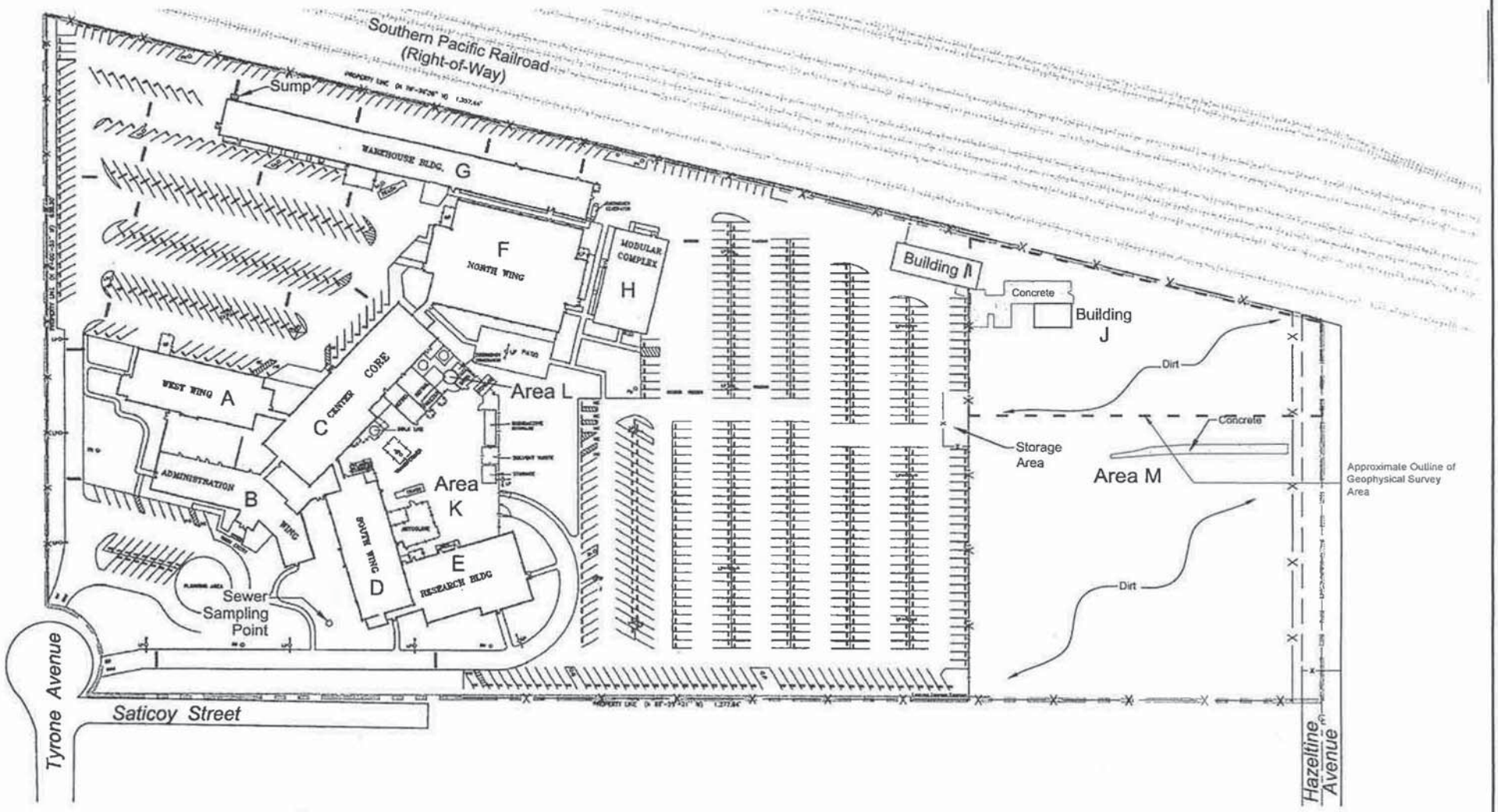
0 1" 100'

Approx. Scale: 1" = 100'

FIGURE 3: Boring Location Map

CLIENT: Los Angeles Department of Water and Power	DRAWN: KAD	DATE: 6/2013
	APPRV.: SM	Appx. Scale: 1" = 100'
SITE: 7600 Tyrone Avenue Van Nuys, California		
PROJ. NO.: LDWP-13-1198		

ALTA ENVIRONMENTAL
3777 Long Beach Blvd, Annex Bldg. Long Beach CA 90807
P: (562) 495-5777 * F: (562) 495-5877 * altaenvcon.com



Explanation

- Site boundary
- Fence
- Fire hydrant
- Gas pad
- Light poles
- Telephone pole
- Speed bump
- Handicap
- Approximate Outline of Geophysical Survey Area - Some locations not surveyed due to inaccessiblity

Note:

All locations are approximate.

NORTH

1" = 100'

Approx. Scale: 1" = 100'

FIGURE 2: Site Layout & Geophysical Survey Area

CLIENT: Los Angeles Department of Water and Power	DRAWN: KAD	DATE: 4/2013
	APPRV.: SM	Appx. Scale: 1" = 100'
SITE: 7600 Tyrone Avenue Van Nuys, California	ALTA ENVIRONMENTAL	
PROJ. NO.: LDWP-13-1198	3777 Long Beach Blvd, Annex Bldg, Long Beach CA 90807 P: (562) 495-5777 * F: (562) 495-5877 * altaenviron.com	

NMG
Geotechnical, Inc.

August 10, 2012

Project No. 12069-01

To: Shubin Nadal Realty Investors
901 Dove Street, Suite 225
Newport Beach, California 92660

Attention: Mr. William Shubin

Subject: Preliminary Geotechnical Exploration for Proposed Office-Industrial Project at 7600 Tryone Avenue, Van Nuys, City of Los Angeles, California

At your request and authorization, NMG Geotechnical, Inc. (NMG) has conducted a geotechnical exploration for the proposed development at the subject site located at 7600 Tyrone Avenue, in Van Nuys in the City of Los Angeles, California. The site location is shown on Figure 1. The purpose of this exploration was to assess the onsite geotechnical conditions and provide preliminary geotechnical recommendations for project design, grading and construction.

Our geotechnical exploration was performed June 25 and 26, 2012, which included drilling, sampling and logging of fifteen hollow-stem-auger borings (H-1 through H-15) to depths ranging from 9 to 31.5. Two of the borings were used for onsite percolation testing. Laboratory testing was performed on selected soil samples to determine engineering soil properties.

Other than constraints typical for this area (e.g. seismicity), the primary geotechnical constraint at the site is a potentially collapsible soil layer ranging in thickness from 2 to 4 feet found in the upper 5 to 7.5 feet of Borings H-4 and H-5. However, these soils appear to be limited to a localized area within the vicinity of these borings. The site is not located in potential liquefaction or earthquake-induced landslide hazard zones. Near surface soil has low expansion potential. For typical low-rise commercial/industrial buildings the total post-construction settlement is not anticipated to exceed one-half inch and differential settlement is anticipated to be less than ¼ inch in a 40-foot span, provided recommended remedial grading is performed and existing site grades are not raised significantly. Therefore, conventional shallow foundations and slabs-on-grade will acceptable for the planned construction.

This report presents our findings, conclusions and preliminary recommendations for the proposed project. Upon the completion of grading, additional soil samples may need to be collected and tested to confirm the recommendations provided herein. Also, the future grading and foundation plans should be reviewed by the geotechnical consultant in light of this study to confirm that our recommended design parameters have been used, and to provide further recommendations, as needed.

If you have any questions regarding this report, please contact our office. We appreciate the opportunity to provide our services.

Respectfully submitted,

NMG GEOTECHNICAL, INC.

Ted Miyake

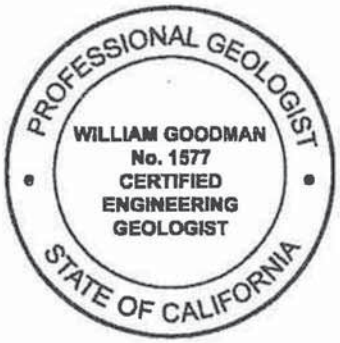
Ted Miyake, RCE 44864
Principal Engineer

William Goodman

William Goodman, CEG 1577
Principal Geologist

CD/PA/TM/WG/je

Distribution: (3) Addressee



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Appendices

1.0 INTRODUCTION

1.1 Site Location and Proposed Development

The site is located in a commercial-industrial district at 7600 Tyrone Avenue, in Van Nuys, within the City of Los Angeles, California. The site bordered by railroad tracks that run along Cabrito Road on the north, by Tyrone Avenue and existing commercial properties on the west, by Hazeltine Avenue on the east, and by the extension of Saticoy Street and commercial properties on the south.

We understand that existing structures and improvements at the site will be demolished. The conceptual site plan shows three proposed new industrial buildings, associated driveways and parking lots, and Saticoy Avenue improvements. The buildings will be single level tilt up construction with some mezzanine space. Access to the site will be off an extension of Saticoy Avenue, which may also be extended further east in the future. We understand that future grades will not be significantly different that existing grades. Therefore, we have assumed that new fill loads will be minor.

1.2 Existing Site Conditions

The subject site is trapezoidal and approximately 16.4 acres with existing buildings having a footprint of over 172,000 square feet. The existing buildings, some of which are multi-story, are surrounded by paved driveways and parking lots; most were constructed in the mid-1960s with one building built in 1988. The eastern end of the site is a predominantly vacant dirt parcel containing three small buildings in the northwest corner. This entire property is relatively flat with local areas of grasses, weeds, and small stockpiles of soil and rubble in the vacant lot area. There are some relatively large trees at the site, especially in the west half around the primary building campus. The existing buildings are currently unoccupied.

1.3 Scope of Services

Our scope of services for this study included the following tasks:

- Review of geotechnical information pertaining to the subject site, including site geology, historic groundwater data, and seismic hazard maps.
- Site reconnaissance to identify the existing site conditions and marking of boring and test-pit locations.
- Coordination with Underground Service Alert and a private utility locating service (Util-locate) to identify and locate any underground utilities.
- Field exploration consisted of drilling, logging and sampling of fifteen hollow-stem-auger borings to depths of 9 to 31.5 feet. The borings were backfilled with cuttings and patched with cold patch asphalt concrete. Soils in the borings were sampled using a Modified California ring sampler (2.5-inch, inside-diameter, split-barrel). The sampler was driven with a 140-pound automatic hammer, free-falling 30 inches. We collected relatively undisturbed

ring samples from the borings at 2.5- to 5-foot intervals. Representative bulk samples of onsite soils were collected from the hollow-stem auger cuttings. The sampling was used to assess the soil beneath the site, as well as to obtain a measure of resistance of the soil to penetration (recorded as blows-per-foot on the geotechnical boring logs). The boring logs are included in Appendix B.

- Percolation testing on two boring locations to measure percolation and infiltration rates based on accepted local percolation test procedures and requirements.
- Laboratory testing of selected samples to classify the onsite soils and evaluate in-situ moisture and density, maximum dry density and optimum moisture content, R-value, grain-size distribution, Atterberg limits, direct shear, consolidation, expansion index, and soil corrosivity. Test results are summarized in Appendix C. A corrosion engineer's report is also attached at the rear of Appendix C.
- Geotechnical evaluation and analysis of the compiled data in light of the planned project.
- Evaluation of faulting and seismicity in accordance with the 2010 California Building Code (CBC).
- Preparation of this report including our findings, conclusions, preliminary recommendations and accompanying illustrations.

NMG's expertise and scope of services did not include assessment of potential subsurface environmental contaminants or environmental health hazards.

2.0 GEOTECHNICAL FINDINGS

2.1 Geologic Setting

The subject site is located in the central San Fernando Valley portion of the Transverse Range province of Southern California. The San Fernando Valley is an east-west trending structural trough bounded to the north and south by active faulting along the southern edge of the San Gabriel and Santa Monica Mountains. The site is mapped by the state as underlain by young alluviul fan deposits (USGS 2005) generated by the Pacoima and Tujunga washes which originate in the adjacent San Gabriel Mountains. The underlying material is described as consisting of unconsolidated gravel, sand, silt and clay. Portions of the valley are also underlain by flood deposits of the Los Angeles River.

2.2 Regional Faulting and Seismicity

Regional Faults: The site is not located within a fault-rupture hazard zone as defined by the Alquist-Priolo Special Studies Zones Act (CDMG, 1999) and no evidence of active faulting was observed during this exploration.

Using the USGS computer program (USGS, 2002, updated 2008) and the site coordinates of 34.209 degrees north latitude and 118.442 degrees west longitude, the closest major active faults to the site are the Northridge Hills Fault (5.3 km), Verdugo Fault (6.1 km), Sierra Madre Fault (9.7 km), Hollywood Fault (12.9 km).

Seismicity: Sites in southern California are subject to seismic hazards of varying degrees depending upon the proximity, degree of activity, and capability of nearby faults. These hazards can be primary (i.e., directly related to the energy release of an earthquake such as surface rupture and ground shaking) or secondary (i.e., related to the effect of earthquake energy on the physical world, which can cause phenomena such as liquefaction and ground lurching). Since there are no active faults at the site, the potential for primary ground rupture is considered low. The primary seismic hazard for this site is ground shaking due to a future earthquake on one of the major regional active faults listed above.

The maximum moment magnitude for the controlling fault is 6.93 M_W, with peak ground accelerations of 0.48g (SDS/2.5) which would be generated from the Northridge Hills fault.

The site is not located within an area of potential liquefaction, as defined by the State's Seismic Hazard Mapping Act. The attached Site Location and Seismic Hazards Map (Figure 1) shows the approximate location of the site relative to seismic hazard zones, as shown on the State of California Seismic Hazard Zones Map for the Van Nuys Quadrangle (CDMG, 1998).

Secondary seismic hazards, such as tsunami and seiche, are considered low as the site is located more than 15 miles away from the ocean and is not located within a mapped Tsunami Inundation Zone, nor is the site located near any confined water storage facilities (e.g., open reservoirs, water tanks, etc.).

2.3 Geotechnical Conditions

NMG's exploration encountered approximately 2.5 to 7.5 feet of undocumented artificial fill overlaying the alluvial deposits of the site. The existing artificial fill generally consisted of yellowish brown to brown silty sand. The artificial fill materials encountered were medium dense to dense with blow-counts in the range of 7 to 34 blows/ft (California Ring Sampler blows). Field moisture content varied from approximately 1.3 percent to 12.6 percent, with an average of about 8 percent. The dry densities of the fill ranged from 105.6 to 126 pounds per cubic foot (pcf).

Most of the alluvium deposits at the site generally consisted of interlayered yellowish brown, olive brown, and brown sandy and clayey silts, and silty sands; with some poorly graded sands in local areas. Sandy and clayey silt soils were predominantly found in our borings, with silty sand layers found at depths of 20 to 25 feet in Borings H-5, H-7 trhough H-9, H-11, and H-12. The sandy and clayey silts were medium stiff to stiff with blow-counts ranging from 6 to 29 blows/ft. Field moisture content for these soils varied from 4.2 to 20.3 percent and the dry density ranged from 95.9 to 116.7 pcf. The silty sand soils were medium dense to dense with blow counts varying from 13 to 32 blows per foot; field moisture content varied from 3 to 19.3 percent, having dry densities ranging from 99.9 to 128.1 pcf. Groundwater was not encountered in our borings.

The engineering properties, based on the laboratory test results, used to characterize the subsfurface soils are presented in Section 2.4.

2.4 Laboratory Test Results

We tested representative samples of onsite soils collected during our field exploration to characterize their engineering properties in general conformance with applicable American Society for Testing and Materials (ASTM) standards. The laboratory test results from this study are provided in Appendix C. In-situ moisture content and dry density data are included on the geotechnical boring logs (Appendix B).

Results of the maximum dry density testing indicates that the silty sandy soils collected at depths of 0 to 5 feet in Borings H-1 and H-12 have maximum dry densities of approximately 122 and 120 pcf at optimum moisture contents of 10.5 and 10 percent, respectively.

Grain-size distribution and plasticity tests (Atterberg Limits) were conducted on samples considered representative of the alluvial and artificial fill soil in the upper 10 feet. The samples tested were generally classified as silty sands and sandy silts, with fine contents ranging from 27 to 70 percent. One sample in Boring H-1 and at depth of 7.5 feet was classified as a poorly graded sand with fine content of 4 percent. A representative artificial fill soil sample at a depth of 2.5 feet was found to be non-plastic. One clayey silt sample collected at a depth ranging from 5 to 10 feet was found to have a liquid limit of 27 percent and a plastic limit of 35 percent.

Based on laboratory testing, the onsite sandy and silty soils in the upper 10 feet have "low" to "very low" expansion potential (Expansion Index in the range of 8 to 22). The R-values of two near surface soil samples were 60 and 70.

Direct shear testing was conducted on two undisturbed alluvial samples and one undisturbed artificial fill sample representative of sandy and silty soils, collected at depths of feet, in order to evaluate the strength properties of the underlying materials. The results of the direct shear test indicate that the alluvial soils have an ultimate internal friction angle of 26 degrees with cohesion of 100 pounds per square foot (psf). The peak internal friction angle was 28 degrees at cohesion of 400 psf. The fill soil sample had an ultimate friction angle of 27 degrees at 175 cohesion; the peak values for friction angle and cohesion were 31 degrees and 350 psf, respectively.

The boring data and consolidation test results show that onsite soils have low to moderate settlement potential with the exception of some soil that may be prone to hydroconsolidation (collapse upon saturation). Soil samples tested from depths of 5 and 7.5 feet at borings H-4 and H-5, respectively showed collapse potentials ranging from from 1.86 to 4.21 percent upon the introduction of water at 3.2 ksf axial load. Two representative samples of the near-surface soils were sent to an outside laboratory for corrosivity testing. This testing included pH, soil resistivity, sulfate content and chloride content.

The electrical resistivity test on the saturated soil sample indicates that onsite soils are corrosive to ferrous metals. Sulfate-content test result indicates that onsite soils have "negligible" sulfate exposure per Table 4.3.1 of ACI-318. The corrosivity test results and the corrosion protection recommendation report prepared by HDR Schiff are presented in Appendix C.

2.5 Groundwater

Groundwater was not encountered in any of our borings to a depth of 31.5 feet. Historic high groundwater at the site is mapped at 70 to 80 feet below ground; however, local groundwater well data indicates it ould be as deep as 200 feet. Groundwater is not anticipated to be encountered during grading operations

2.6 Settlement

With the exception of the potentially collapsible soil discussed in Section 2.4, the soil at the site is has relatively low settlement potential for the anticipated fill and structural loads. Some of the near surface soil in the vacant portion of the site on the east end is looser and dry. Provided the recommended remedial measures herein are implemented the total consolidation (static) settlement for the proposed structures should not exceed 1/2- inch following construction. The differential settlement should not exceed 1/4-inch over a 40-foot span.

If not mitigated, the potential settlement related to the collapsible soil encountered in borings H-4 and H-5 is on the order of 1 to 2 inches. This assumes the collapsible soil layer is 2 to 4 feet thick and would become saturated following project completion (either from natural or man-induced infiltration). Because the limits of the collapsible soil can vary, the entire settlement

potential of 1 to 2 inches may be differential. This differs from differential settlements calculated from normal consolidation settlement which is often estimated as one half of the total settlement.

The soil characteristics at the site are such that the soil should not be prone to significant settlement that can be induced by earthquake related ground shaking.

2.7 Seismic Hazards

The site is not located within any mapped seismic hazard zone. We did not encounter conditions considered significant with respect to other secondary seismic hazards such as liquefaction.

2.8 Percolation Testing

Percolation testing at the site was performed on June 27, 2012. The Boring Percolation Test Procedure was used as described in "Low Impact Development Best Management Practice Guideline For Design, Investigation, And Reporting" by the County of Los Angeles Department of Public Works (LADPW, 2011). Two percolation tests were performed in borings H-3 and H-6 (8-inch diameter) with depths of 12.5 and 7.5 feet, respectively. The borings were presoaked overnight prior to testing. The percolation testing was performed over a six-hour period and the final measurement was used to calculate the preliminary design infiltration rate. Percolation test data sheets are provided in Appendix D.

Measured percolation and infiltration rates were calculated based on the results of the final measurements at each test location. Measured infiltration rates were calculated using the formula given in the Boring Percolation Test Procedure (LADPW, 2011). This equation corrects for vertical flow and removes the affects of lateral flow. Measured percolation rates and measured infiltration rates are given in Table 1, below.

TABLE 1 – PERCOLATION TEST RESULTS

Boring No.	*Measured Percolation Rate (in./hr.)*	*Measured Infiltration Rate (in./hr.)*
H-3	24.0	3.08
H-6	4.80	1.50

3.0 CONCLUSION AND RECOMMENDATIONS

3.1 General Conclusion and Recommendation

Based on our study, the proposed project is considered feasible from a geotechnical standpoint provided the recommendations in this report are implemented during design, grading and construction. The site will require partial removal of existing artificial fill materials, as well as remedial grading to remove anticipated unsuitable soils and provide a compacted fill blanket to support the proposed improvements.

Our recommendations are based on the anticipated geotechnical conditions and should be verified during grading and construction. Additional soil testing and revised recommendations may be necessary if import fill is required and/or exposed geotechnical conditions vary significantly from the findings and interpretations presented in this report. Geotechnical observation and testing should be conducted during grading and construction operations. The recommendations in this report are considered minimum and may be superseded by more stringent requirements of others and/or the future geotechnical consultant of record.

3.2 Site Preparation and Earthwork

Site preparation and grading should be performed in accordance with the recommendations herein and the requirements of the City of Los Angeles. NMG's General Earthwork and Grading Specifications are included in Appendix F.

3.2.1 Site Demolition and Clearing

Prior to remedial grading and after demolition and removal of the existing improvements, deleterious materials and debris should be cleared from the site and disposed of offsite. Excavation for the removal of existing utilities and vegetation should be observed by the geotechnical consultant. Large roots, highly organic soils, existing foundations, pipelines and construction debris should be removed and should not be incorporated into new fills.

Soil that is disturbed as part of large excavations or removal of underground utilities and foundations should be observed and evaluated by the geotechnical consultant who should provide remedial recommendations. Excavations that require backfill should be properly documented and compacted under the observation and testing of the geotechnical consultant.

3.2.2 Protection of Existing Improvements and Utilities

Existing improvements and utilities at or adjacent to the site that are to be protected in place should be located and visually marked prior to demolition and grading operations. Excavations adjacent to improvements to be protected in-place or any utility easement should be performed with care, so as not to undermine existing foundations or destabilize the adjacent ground.

3.2.3 Remedial Grading Measures

Some of the near-surface soils including the existing artificial fill are expected to be disturbed and unsuitable for structural support following site demolition. The upper one to two feet of soil in the vacant areas at the east end of the site is also weathered and loose. These materials should be removed and recompacted (per Section 3.2.4). On average, remedial removals across the site should be on the order of 2 to 3 feet deep, with the exception of the collapsible soil area near borings H-4 and H-5. The existing soil in this area should be removed down to approximately 7.5 feet below existing ground and recompacted. The general area of potentially collapsible soil is show on Figure 3. The extent to which the collapsible soils extends laterally should be determined in the field during removals by the geotechnical consultant. Soil may be deemed to have insignificant collapse potential if it has an in-place soil with dry density near 110 pcf or a degree of saturation over 65 percent. Clayey or very clean sands may also be visually classified as having low collapse potential.

We recommend a minimum new fill blanket of 3 feet within the new building footprints. The removal bottoms should be reviewed and approved by the geotechnical consultant prior to placement of new fill. Because the recommended remedial removal depths are based on limited subsurface data, locally deeper removals may be required to establish competent removal bottoms based on observed field conditions.

Excavations for remedial removals deeper than 4 feet should be laid back at 1.5H:1V inclinations or flatter. Shallower excavations may consist of near vertical sides.

3.2.4 Fill Placement

Upon completion of remedial removals, the approved removal bottoms should be scarified a minimum of 6 inches. The removal bottoms and fill materials should be compacted to at least 90 percent of maximum dry density, as determined by ASTM Test Method D1557. Fill materials should be placed in loose lifts no thicker than 8 inches.

Fill materials should be relatively free of deleterious material. Crushed (recycled) asphalt concrete and PCC concrete may be used as fill materials. The existing fill soil and alluvium at the site should generally be suitable for re-use as compacted fill. The moisture content of new compacted fill soils should be placed at above the optimum moisture content within the compactable moisture range. Appropriate support equipment and other measures (e.g., mixing, stockpiling) may be needed to achieve the uniform and correct moisture content for placement of the fill. If the soils become extremely wet (during wet seasons), special measures for mixing and drying may be required that will need to be determined based on the field conditions.

3.2.5 Earthwork Shrinkage and Bulking

Due to the inherent variability of soil materials, earthwork volume changes are difficult to accurately quantify. Based on the gathered data and our experience with similar materials,

we anticipate the near surface soil that is removed and recompacted will shrink on the order of zero to 5 percent. Since the site has been previously developed, little to no subsidence is anticipated from site earthwork equipment.

3.3 Seismic Design Parameters

The seismic design criteria based on the 2010 California Building Code (CBC) are as follows:

Selected Seismic Design Parameters from 2010 CBC	*Seismic Design Values*	*Reference*
Latitude	34.2094 North	
Longitude	118.4423 West	
Controlling Seismic Source	Northridge Hills Fault	USGS, 2008
Distance to the Controlling Seismic Source	3.2 Miles (5.2 km)	USGS, 2008
Site Class per Table 1613.5.2	D	USGS, 2011
Spectral Acceleration for Short Periods (Ss)	1.754 g	USGS, 2011
Spectral Accelerations for 1-Second Periods (S1)	0.612 g	USGS, 2011
Five-Percent Damped Design Spectral Response Acceleration at Short Periods (S_{DS}) from Equation 16-38 (Site Class D)	1.169 g	USGS, 2011
Five-Percent Damped Design Spectral Response Acceleration at 1-Second Period (S_{D1}) from Equation 16-39 (Site Class D)	0.612 g	USGS, 2011

3.4 Foundation Design

Shallow foundations and slab-on-grade floors should be feasible for the proposed structurers. Our exploration and laboratory testing suggests that expansive soil will not a significant issue for foundations and slabs-on-grade. Although one of two expansion index (EI) tests had an EI of just over 20, we anticipate that following site demolition and grading, the general EI for the site may be classified as less than 20. (Foundation and slabs on soil with EI's greater than 20 should be designed per the requirements of Section 1808.6 of the 2010 CBC.) The preliminary design parameters for wire-reinforced slabs are provided below; however, these parameters may need to be revised if different conditions are encountered during the grading.

The design of slabs and foundations is the purview of the project structural engineer based on the anticipated dead and live loads. The design of foundations should also consider the settlement as discussed in Section 3.6.

For preliminary design purposes, the net allowable bearing capacity for footings may be calculated based on the following equation:

$$q_{all} = 1{,}000\ D + 500\ B + 500$$

where:
D = embedment depth of footing, in feet
B = width of footing, in feet
q_{all} = maximum allowable bearing pressure, not to exceed 3,000 psf.

If applicable, an effective plasticity index of 10 may be used for design of wire-reinforced slabs. Also, a soil subgrade reaction, k_s, of 150 pounds per cubic inch (pci) and soil modulus of elasticity, E_s, of 1,500 psi are recommended for design of foundations and slabs. The allowable bearing pressure may be increased by one-third for wind and seismic loading. The coefficient of resistance of 0.35 against sliding is considered appropriate. For isolated footings, we recommend minimum embedment of 18 inches below lowest adjacent grade.

3.5 Interior Slab Moisture Mitigation

In addition to geotechnical and structural considerations, the project owner should also consider moisture mitigation when designing and constructing slabs-on-grade. The intended use of the interior space, type of flooring, and the type of goods in contact with the floor may dictate the need for, and design of, measures to mitigate potential effects of moisture emission from and/or moisture vapor transmission through the slab. A vapor retarder or barrier is typical under the slab to help mitigate moisture transmission through slabs.

Guidelines by the American Concrete Institute (ACI) (302.1R-96) recommend that the vapor retarder be placed directly under the slab (sand layer not required). However, the location of the vapor retarder and the use of sand above it may also be subject to the owner's/builder's past successful practice. A minimum 10-mil thick vapor retarder is recommended where flooring and/or interior use requires floor slab water vapor control.

Concrete mix design and curing are also significant factors in mitigating slab moisture problems. Concrete with lower water/cement ratios results in denser, less permeable slabs. They also "dry" faster with regard to when flooring can be installed (reduced moisture emissions quantities and rates). Rewetting of the slab following curing should be avoided since this can result in additional drying time required prior to flooring installation. Proper concrete slab testing prior to flooring installation is also important.

The concrete mix design and the type and location of the vapor retarder should be determined in coordination with all parties involved in the finished product, including the project owner, architect, structural engineer, geotechnical consultant, concrete subcontractors, and flooring subcontractors.

3.6 Settlement Potential

Static and seismic settlements for the proposed structures are not expected to exceed ½-inch total and ¼-inch differential following completion of construction, provided the recommendations in this report are implemented for design, grading, and construction.

3.7 Lateral Earth Pressures

The recommended lateral earth pressures based on our limited subsurface exploration and for approved compacted soils in drained conditions are as follows:

Conditions	*Level (pcf)*	*2:1 Slope (pcf)*
Active	40	65
At-Rest	60	85
Passive	360	135 (sloping down)

In addition to the above lateral forces due to retained earth, the influence of surcharge due to other loads such as adjacent footings, vehicular traffic or lateral loads acting on the retaining wall, if any, should be considered during the design of retaining walls. Recommendations for drainage behind retaining walls are provided in the attached detail (Figure 3, rear of text).

To design an unrestrained retaining structure, such as a cantilever wall, the active earth pressure may be used. For a restrained retaining structure, such as a basement wall, loading docks or at restrained-wall corners, the at-rest pressure should be used. Passive pressure is used to compute lateral soil resistance developed against lateral structural movement. Further, for sliding resistance, the friction coefficient of 0.35 may be used at the concrete and soil interface. In addition, the passive resistance is taken into account only if it is ensured that the soil against embedded structures will remain intact with time. Drainage behind retaining walls should also be provided, unless hydrostatic forces are incorporated in wall design.

The seismic lateral earth pressure for level backfill may be estimated to be an additional 14 pcf for active and at-rest conditions. The earthquake soil pressure distribution is similar to active and at-rest pressure distributions and is added to the static pressures. For the active and at-rest conditions, the additional earthquake loading is zero at the top and maximum at the bottom.

3.8 Cement Type

Concrete mix design for structural concrete elements may be based on the "negligible" soluble sulfate category of Table 4.3.1 in ACI-318-318R-43. Other ACI guidelines for structural concrete are recommended. Additional sampling and testing at or near the completion of grading may be recommended if soil conditions are encountered that are significantly different than anticipated.

3.9 Soil Corrosivity

The corrosion protection recommendation report prepared by HDR Schiff is included in Appendix C of this report.

3.10 Vehicular Pavement

As discussed previously, the R-value of the near surface soil samples collected in our geotechnical study at the site were in the range of 60 to 70. For preliminary purposes using a traffic index (TI) of 5.0 for parking stalls, TI of 5.5 for drive areas, and TI of 6.0 for drive entries; and a design R-value of 50, we recommend the following pavement sections in accordance with the California Highway Design Manual. Because of the high R-value, a minimum section of 3 inches asphalt concrete (AC) over 6 inches of aggregate base (AB) applies for all cases. In addition, pavement sections for concrete unit pavers are provided in the event they are specified.

	T.I.= 5.0 Primarily Passenger and Light Duty Vehicles	***T.I.= 5.5 Drive Aisles***	***T.I.= 6.0 Truck Traffic Areas***
Pavement Section Alternatives	3-inch AC/6-inch AB	3-inch AC/6inches AB	3-inch AC/6-inch AB
	5-inch Full Depth AC/ Compacted Subgrade	5.5-inch Full Depth AC/ Compacted Subgrade	6-inch Full Depth AC/ Compacted Subgrade
	80mm (3.15") PAVERS/6-inch AB	80mm PAVERS/8-inch AB	80mm PAVERS/8-inch AB

If higher traffic indices are determined when project plans are more complete, the above pavement sections should be reviewed and adjusted as necessary.

Pavement sections should be constructed in accordance with the requirements of Section 301 and 302 of the Standard Specifications of Public Works Construction (The Green Book). Prior to construction of pavement sections, the subgrade soils should be scarified to a minimum depth of 6 inches, moisture-conditioned as needed, and recompacted in place to a minimum of 90 percent relative compaction per ASTM D1557. If AC is placed directly over the subgrade soil, then the subgrade soil should be compacted to a minimum relative compaction of 95 percent. Subgrade should be firm and unyielding.

AB materials should be crushed aggregate or crushed miscellaneous base in accordance with The Green Book. AB should be free of deleterious materials, placed in 6- to 8-inch loose lifts, moisture-conditioned as necessary, and compacted to a minimum of 95 percent relative compaction per ASTM D1557. AC should also be compacted to 95 percent relative compaction.

PCC Section for Truck Loading Docks and Trash Bin Areas: We recommend that the truck loading dock and trash bin area pavements be a minimum of 6-inch-thick PCC slab over compacted subgrade. Reinforcement with No. 3 rebars, at least 18 inches on center, both ways,

is recommended. The soil subgrade should be compacted to a minimum 95 percent relative compaction per ASTM D1557.

Moisture and root barriers should be considered along the street pavements that are adjacent to unpaved medians and parkways with landscape and irrigation in order to minimize the potential for wetting of the street subgrade soils and pavement distress.

3.11 Other Site Concrete

We recommend that the "**low**" category be used during the preliminary design of the project site. Additional laboratory testing or field evaluation following the completion of grading operations should be performed to verify our preliminary recommendations.

TYPICAL RECOMMENDATIONS FOR NON-STRUCTURAL CONCRETE FLATWORK/HARDSCAPE

Recommendations	Expansion Potential (Index)				
	Very Low (< 20)	***Low (20 – 50)***	*Medium (51 – 90)*	*High (91 – 130)*	*Very High (> 130)*
Slab Thickness (Min.): Nominal thickness except where noted.	4"	**4"**	4"	4"	4" Full
Subbase: Thickness of sand or gravel layer below concrete	N/A	**N/A**	Optional	2" – 4"	2" – 4"
Presaturation: Degree of optimum moisture content (opt.) and depth of saturation	Pre-wet Only	**1.1 x opt. to 6"**	1.2 x opt. to 12"	1.3 x opt. to 18"	1.4 x opt. to 24"
Joints: Maximum spacing of control joints. Joint should be ¼ of total thickness	10'	**10'**	8'	6'	6'
Reinforcement: Rebar or equivalent welded wire mesh placed near mid-height of slab	N/A	**N/A**	Optional (WWF 6 x 6 – W1.4xW1.4)	No. 3 rebar, 24" O.C. both ways or equivalent wire mesh	No. 3 rebar, 24" O.C. both ways
Restraint: Slip dowels across cold joints; between sidewalk and curb	N/A	**N/A**	Optional	Across cold joints	Across cold joints (and into curb)

3.12 Storm Water Treatment

No plans are currently available showing potential stormwater infiltration locations, or a proposed stormwater infiltration system; therefore the recommendations given in this section are preliminary and are based on limited percolation testing performed at two boring locations (see Figure 1). Additional percolation testing and analyses may be required at specific locations once plans showing proposed infiltration devices and locations are available.

The measured infiltration rate of 1.5 inches per hour represents the underlying soil in this area. A factor of safety of 2.0 should be used for design. Thus, a preliminary design infiltration rate of 0.75 inches per hour is recommended for the preliminary design of a stormwater treatment system.

The infiltration system should be sized and designed by a qualified engineer and adhere to local guidelines and regulations pertaining to treatment and infiltration of onsite stormwater. Special care should be taken so as to limit damage or disturbance to onsite soils in a manner that may affect infiltration in the area of the proposed infiltration system.

3.13 Trench Excavation and Backfill

Excavations should be performed in accordance with the requirements set forth by Cal/OSHA Excavation Safety Regulations (Construction Safety Orders, Section 1504, 1539 through 1547, Title 8, California Code of Regulations). In general, onsite soils are anticipated to be classified as Type "C" due to the low cohesion and sandy character. Cal/OSHA regulations apply to excavations that are up to 20 feet deep.

Trenches, including interior utility, should be either backfilled with native soil and compacted to 90 percent relative compaction, or backfilled with clean sand (SE 30 or better), which can be densified with water jetting and flooding (except for sewer and water lines under the jurisdiction of IRWD, which does not typically allow jetting of sands).

Trenches excavated on a graded slope-face, if any, for utility or irrigation lines and/or for any purpose should be properly backfilled and compacted in order to obtain a minimum 90 percent relative compaction to the slope face. Trenches excavated next to structures and foundations should also be properly backfilled and compacted to provide full lateral support and reduce settlement potential.

3.14 Drainage and Irrigation

Inadequate control of run-off water, heavy irrigation after development of the site, or regional groundwater level changes may result in shallow groundwater conditions where previously none existed. Maintaining adequate surface drainage, proper disposal of run-off water, and control of irrigation will help reduce the potential for future moisture-related problems and differential movements from soil heave/settlement.

Surface drainage should be carefully taken into consideration during grading, landscaping, and building construction. Positive surface drainage should be provided to direct surface water away from structures and slopes and toward the street or suitable drainage devices. Ponding of water adjacent to the structures should not be allowed. Paved areas should be provided with adequate drainage devices, gradients, and curbing to prevent run-off flowing from paved areas onto adjacent unpaved areas.

The performance of foundations is also dependent upon maintaining adequate surface drainage away from structures. The minimum gradient within 5 feet of the buildings will depend upon surface landscaping. In general, we suggest that unpaved turf and landscape areas have a minimum gradient of 2 percent away from structures.

Construction of planter areas immediately adjacent to structures should be avoided. If planter boxes are constructed adjacent to or near buildings, the sides and bottoms of the planter should be provided with a moisture barrier to prevent penetration of the irrigation water into the subgrade. Provisions should be made to drain excess irrigation water from the planters without saturating the subgrade below or adjacent to the planters. Raised planter boxes may be drained with weepholes. Deep planters (such as palm tree planters) should be drained with below-ground, water-tight drainage lines connected to a suitable outlet.

3.15 Future Geotechnical Plan Reviews

Future plans for the proposed project and the grading plan should be reviewed and accepted by the geotechnical consultant. Additional exploration, recommendations or modifications to the recommendations herein may be necessary at that time depending on the final plans. The geotechnical consultant should also review the foundation plans for conformance with the geotechnical design parameters and evaluate the foundation design impacts on total and differential settlement for the structures at the site.

3.16 Observation and Testing during Grading and Construction

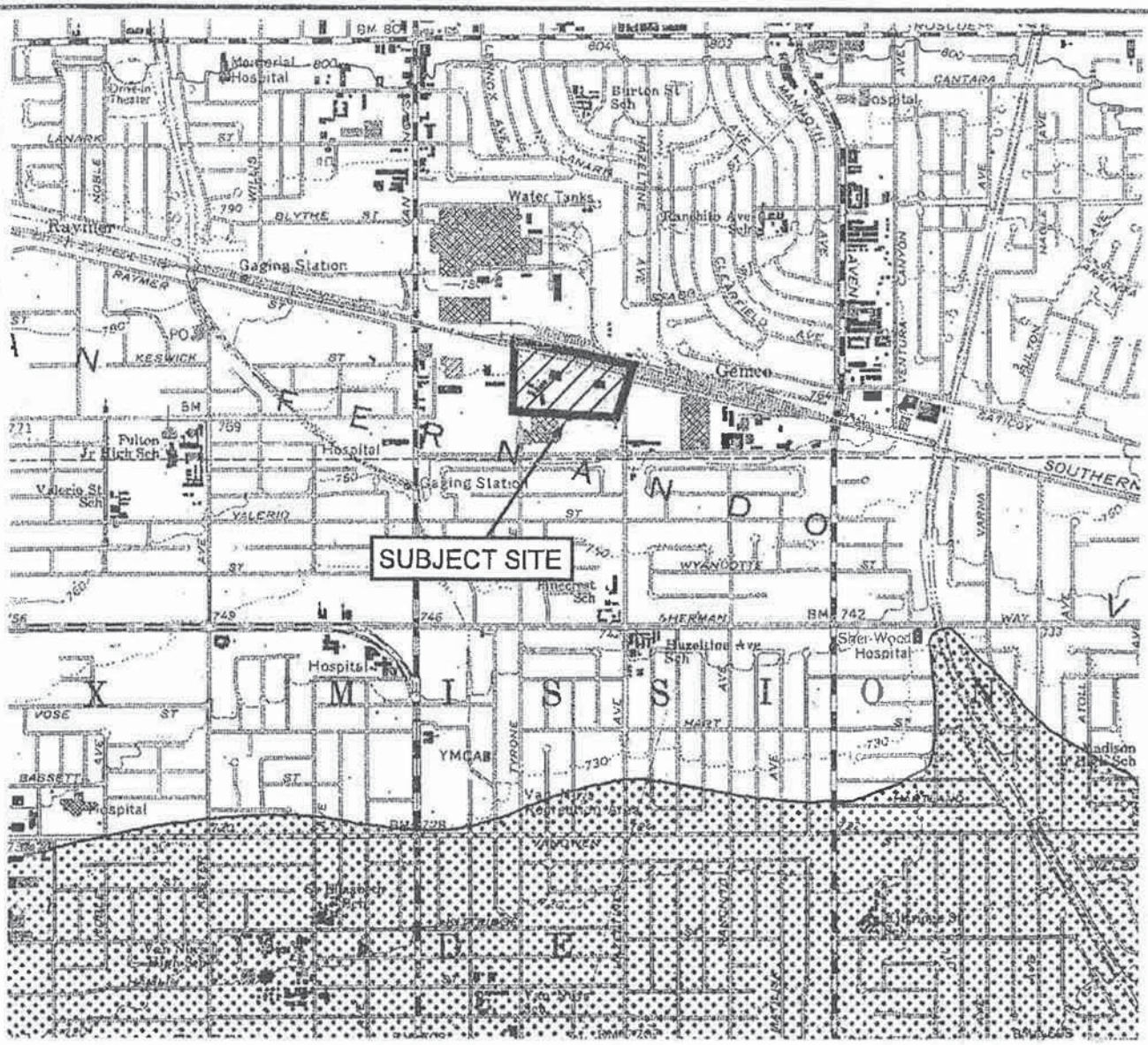
Geotechnical observation and testing should be performed by the geotechnical consultant of record during the following phases of grading and construction:

- During site preparation and clearing,
- During excavations to remove existing foundations and underground improvements;
- During earthwork, including observation and acceptance of remedial removal bottoms and fill placement;
- Following the completion of grading, in order to verify soil properties for foundations, slab-on-grade and pavements;
- Upon completion of any foundation or structural excavation, prior to pouring concrete;
- During slab and flatwork subgrade preparation prior to pouring of concrete;
- During placement of backfill for utility trenches;
- During placement of backfill for retaining structures;
- During installation and backfill of subdrainage systems (if any);
- During subgrade preparation and placement of aggregate base and asphaltic concrete; and
- When any unusual soil conditions are encountered.

3.17 Limitations

This report has been prepared for the exclusive use of our client, Shubin Nadal Realty Investors, within the scope of services requested by our client for the specific project in Van Nuys described herein. This report or its contents should not be used or relied upon for other projects or purposes, or by other parties without the acknowledgement of NMG and the consultation of a geotechnical professional. The means and methods used by NMG for this study are based on local geotechnical standards of practice, care, and requirements of governing agencies. No warranty or guarantee, expressed or implied, is given.

Our findings, conclusions, and recommendations are professional opinions based on interpretations and inferences made from geologic and engineering data from specific locations and depths, observed or collected at a given time. By nature, geologic conditions can vary from point to point, can be very different in-between exploration points, and can also change over time. Our conclusions and recommendations are, by nature, preliminary and subject to verification and/or modification by NMG during grading and construction when more subsurface data is exposed.



Liquefaction

Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides

Areas where previous occurance of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

SITE LOCATION AND SEISMIC HAZARDS MAP

BASE: U.S.G.S. SEISMIC HAZARDS MAP,
VAN NUYS QUADRANGLE
Dated: February 1, 1998

N

Scale 1:24,000

7600 TYRONE AVENUE, VAN NUYS
CITY OF LOS ANGELES, CALIFORNIA

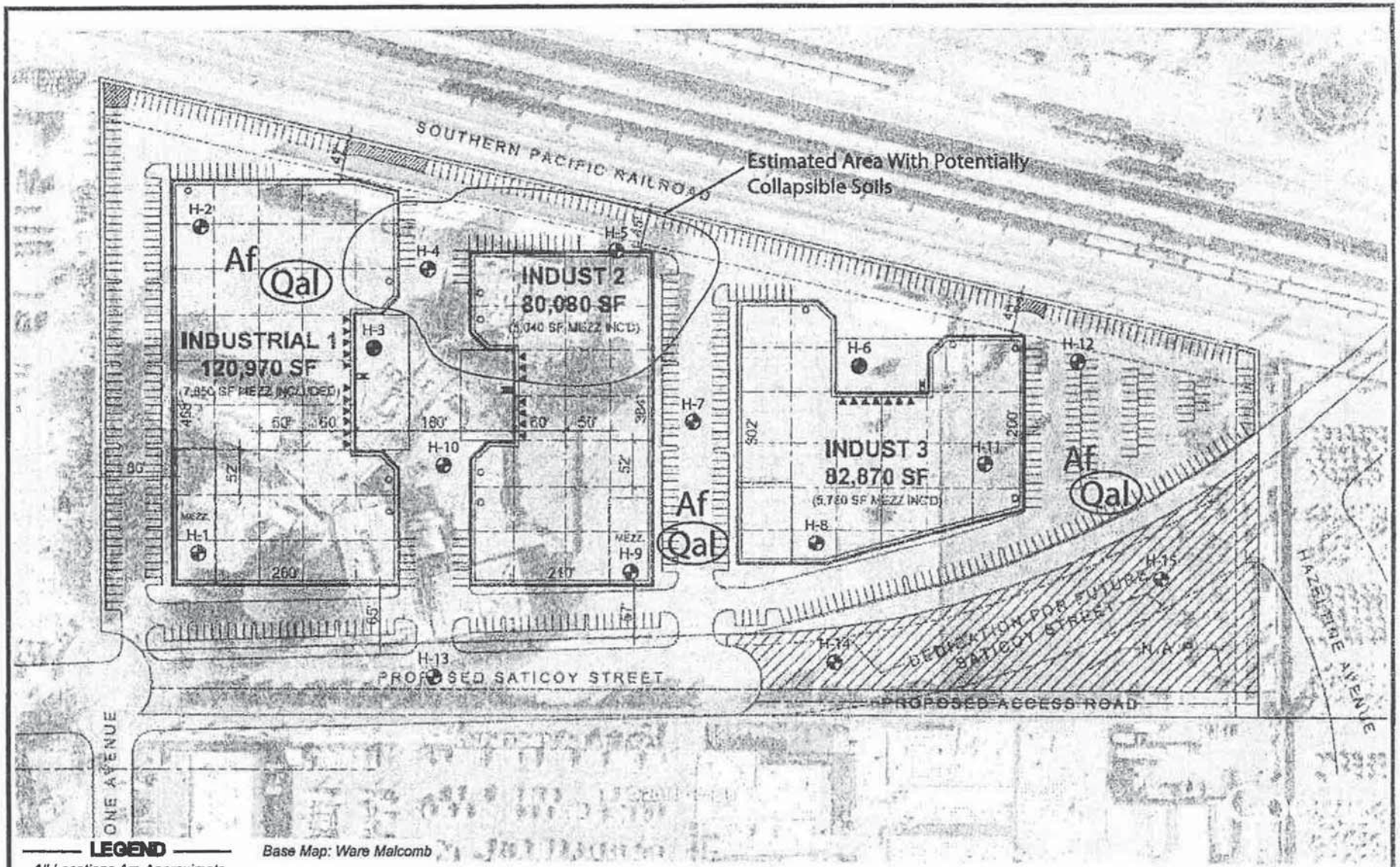
Project Number: 12069-01

Project Name: Shubin Nadal/Van Nuys

Date: 8-10-12 Figure No. 1

NMG Geotechnical, Inc.

12069-01\Drafting\Graphics\Illustrator\Seismic Site\loc.ai



LEGEND

All Locations Are Approximate

H-15 Hollow-Stem Auger Boring

H-6 Infiltration Test Location

Geologic Units - Circled Where Buried

Af Artificial Fill

Qal Alluvium

Base Map: Ware Malcomb

N

GEOTECHNICAL AND BORING LOCATION MAP
7600 Tyrone Ave
Van Nuys, California

Project Number: 12069-01

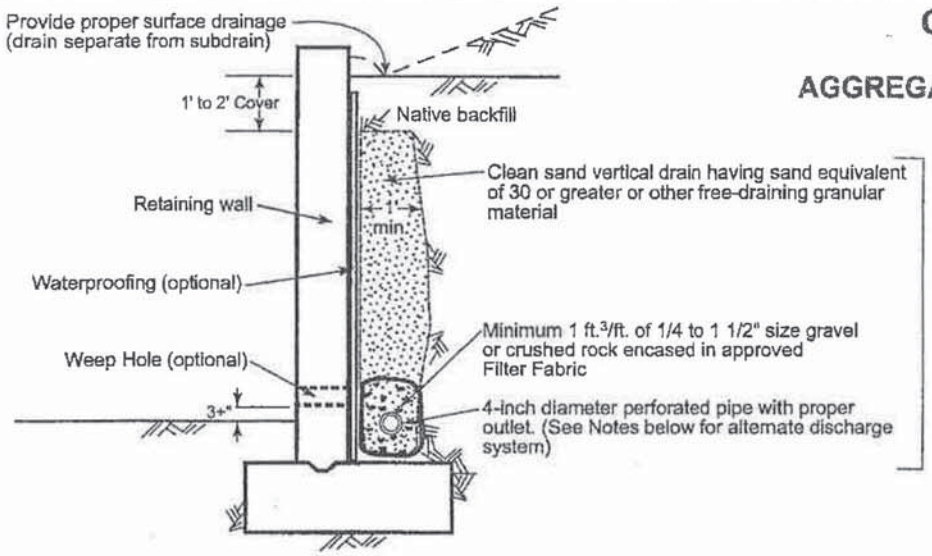
Project Name: Shubin Nadal / Van Nuys

Date: 8/10/12 Figure No. 2

NMG Geotechnical, Inc.

OPTION 1:

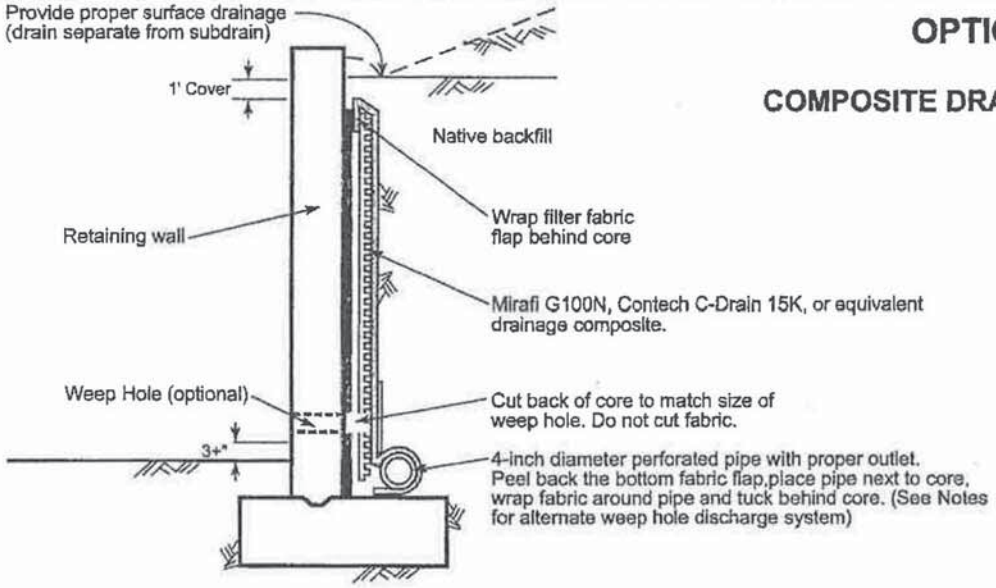
AGGREGATE SYSTEM DRAIN



Alternative: Class 2 permeable filter material (Per Caltrans specifications) may be used for vertical drain and around perforated pipe (without filter fabric)

OPTION 2:

COMPOSITE DRAINAGE SYSTEM



NOTES:

1. PIPE TYPE SHOULD BE PVC OR ABS, SCHEDULE 40 OR SDR35 SATISFYING THE REQUIREMENTS OF ASTM TEST STANDARD D1527, D1785, D2751 , OR D3034.
2. FILTER FABRIC SHALL BE APPROVED PERMEABLE NON-WOVEN POLYESTER, NYLON, OR POLYPROPYLENE MATERIAL.
3. DRAIN PIPE SHOULD HAVE A GRADIENT OF 1 PERCENT MINIMUM.
4. WATERPROOFING MEMBRANE MAY BE REQUIRED FOR A SPECIFIC RETAINING WALL (SUCH AS A STUCCO OR BASEMENT WALL).
5. WEEP HOLES MAY BE PROVIDED FOR LOW RETAINING WALLS (LESS THAN 3 FEET IN HEIGHT) IN LIEU OF A VERTICAL DRAIN AND PIPE AND WHERE POTENTIAL WATER FROM BEHIND THE RETAINING WALL WILL NOT CREATE A NUISANCE WATER CONDITION. IF EXPOSURE IS NOT PERMITTED, A PROPER SUBDRAIN OUTLET SYSTEM SHOULD BE PROVIDED.
6. IF EXPOSURE IS PERMITTED, WEEP HOLES SHOULD BE 2-INCH MINIMUM DIAMETER AND PROVIDED AT 25-FOOT MAXIMUM SPACING ALONG WALL. WEEP HOLES SHOULD BE LOCATED 3+ INCHES ABOVE FINISHED GRADE.
7. SCREENING SUCH AS WITH A FILTER FABRIC SHOULD BE PROVIDED FOR WEEP HOLES/OPEN JOINTS TO PREVENT EARTH MATERIALS FROM ENTERING THE HOLES/JOINTS.
8. OPEN VERTICAL MASONRY JOINTS (I.E., OMIT MORTAR FROM JOINTS OF FIRST COURSE ABOVE FINISHED GRADE) AT 32-INCH MAXIMUM INTERVALS MAY BE SUBSTITUTED FOR WEEP HOLES.
9. THE GEOTECHNICAL CONSULTANT MAY PROVIDE ADDITIONAL RECOMMENDATIONS FOR RETAINING WALLS DESIGNED FOR SELECT SAND BACKFILL.

RETAINING WALL DRAINAGE DETAIL

NMG Geotechnical, Inc.

APPENDIX A

APPENDIX A

REFERENCES

California Division of Mines and Geology, 1997 and updated 2008, Guidelines for Evaluation and Mitigating Seismic Hazards in California, Special Publications 117 and 117A.

California Division of Mines and Geology, 1999, Fault-Rupture Hazard Zones in California, Special Publication 42, Revised 1997, 1 and 2 added 1999.

California Division of Mines and Geology, 1997, Seismic Hazard Zone Report for the Van Nuys 7.5-Minute Quadrangle, Los Angeles County, California, SHZR 08

California Division of Mines and Geology, 2001, Seismic Hazard Zones Map, Van Nuys Quadrangle, Official Map Released February 1, 1998.

California Division of Mines and Geology, 2003, Fault-Rupture Hazard Zones in California, Special Publication 42, Revised 1997, Supplement 3 added 2003, Authored by Hart, E. W. and Bryant, W. A.

Jennings, C. W., 1994 (Revised 2010), Fault Activity Map of California and Adjacent Areas, with Locations and Ages of Recent Volcanic Eruptions, California Department of Conservation, Division of Mines and Geology, Geologic Data Map No. 6.

County of Los Angeles Administrative Manual, 2011, Low Impact Development Best Management Practice Guideline For Design, Investigation, And Reporting, Department of Public Works, Geotechnical and Materials Engineering Division, dated June 1, 2011.

U.S. Geological Survey, 2005, Preliminary Digital Geologic Map of the Los Angeles 30' X 60' Quadrangle, Southern California, dated 2005, CGS Open File Report 2005-1019.

U. S. Geological Survey, 2008, 2002 Interactive Deaggregations Program, Updated August 19, 2008; web site address: http://eqint.cr.usgs.gov/deaggint/2002/.

U.S. Geological Survey, 2011, Seismic Hazards Curves, Response Parameters and Design Parameters, Version 5.1.0, dated February 10, 2011; web site address: http://earthquake.usgs.gov/research/hazmaps/design

APPENDIX B

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Dual symbols are used to indicate gravels or sand with 5-12% fines and soils with fines classifying as CL-ML. Symbols separated by a slash indicate borderline soil classifications.

Sampler and Symbol Descriptions

- Modified California sample (63.5 mm diameter)
- Standard Penetration Test
- Undisturbed pushed tube sample
- Large bulk sample
- Small bulk sample
- Approximate depth of perched water or groundwater

Note: Number of blows required to advance driven sample 300 mm (or length noted) is recorded; blow count recorded for seating interval (initial 150 mm of drive) is indicated by an asterisk.

Laboratory and Field Test Abbreviations

MD	Laboratory compaction test
CN	Laboratory consolidation test
DS	Laboratory direct shear test
AL	Atterberg limits
SE	Sand Equivalent
GS	Grain Size Analysis (Sieve and/or Hydro.)
RV	R-Value
CC	Chemical Testing incl. Soluble Sulfate
EI	Expansion Index
UU	Unconsolidated Shear Strength

GENERAL NOTES

1. Station location is indicated with offset to right (R) or left (L) of centerline (CL).
2. Soil classifications are based on the Unified Soil System and include color, moisture, and relative density or consistency. Field descriptions have been modified to reflect results of laboratory tests where deemed appropriate. Bedrock descriptions are based on visual classification and include rock type, moisture, color, grain size, strength, and weathering.
3. Descriptions on these boring logs apply only at the specific boring locations and at the time the borings were made. They are not warranted to be representative of subsurface conditions at other locations or times.

KEY TO LOG OF BORING

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.

Date(s) Drilled	6/25/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Bulk, Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-1

Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	770.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
770	0						Surface: 3 inches of Asphaltic Concrete (AC).			
						SM	4 inches of Aggregate Base (AB).			
							Artificial Fill (Af)			
			D-1	13			@ 2.5' Yellowish brown fine-grained silty SAND, damp, medium dense, micaceous.	1.8	107.5	B-1 @ 0'-5', RV, MD, GS
	5		D-2	13			@ 5' Yellowish brown fine-grained silty SAND, damp, medium dense, micaceous.	1.3	105.6	
			D-3	25		SP	**Alluvium (Qal)** @ 7.5' Yellowish brown gravelly SAND, damp, dense, friable, 0.25 inch gravel.	1.0		Sample Disturbed, GS
760	10		D-4	44			@ 10' Yellowish brown gravelly SAND, damp, very dense, friable.	1.3		Sample Disturbed
	15		D-5	18		ML	@ 15' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, slightly plastic, slightly porous, massive, micaceous.	10.9	95.9	
750	20		D-6	26			@ 20' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, slightly plastic, slightly porous, massive, micaceous.	7.8	108.6	
	25		D-7	23			@ 25' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, slightly plastic, slightly porous, massive, micaceous, slight $CaCO_3$ stringers, slightly laminated.	11.4	104.8	
740	30									

LOG OF BORING

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
740	30		D-8	26			@ 30' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, slightly plastic, slightly porous, massive, micaceous, slight $CaCO_3$ stringers, slightly laminated.	9.1	105.3	
							Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
	35									
730	40									
	45									
720	50									
	55									
710	60									
	65									

LOG OF BORING

Shubin Nadal / Van Nuys
Van Nuys, California

PROJECT NO. 12069-01

NMG

Date(s) Drilled	6/25/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-10

Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	771.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						Surface: 4 inches of Asphaltic Concrete (AC).			
770							5 inches of Aggregate Base (AB).			
						SM	**Artificial Fill**			
			D-1	7			@ 2.5' Yellowish brown fine-grained silty SAND, moist, medium dense, micaceous, massive.	7.3	113.9	
	5		D-2	11		ML	**Alluvium (Qal)** @ 5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive, slightly plastic.	13.5	90.3	CN
			D-3	10			@ 7.5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive, slightly plastic.	14.9	111.6	
	10		D-4	11			@ 10' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive, slightly plastic.	15.1	115.1	
760										
	15		D-5	13			@ 15' Yellowish brown clayey SILT, moist, medium stiff, micaceous, massive, plastic, slightly laminated.	18.0	102.1	
	20		D-6	17			@ 20' Yellowish brown clayey SILT, moist, medium stiff, micaceous, massive, plastic, slightly laminated.	14.5	112.5	
750										
	25		D-7	14			@ 25' Yellowish brown clayey SILT, moist, medium stiff, micaceous, massive, plastic, laminated.	16.9	107.2	
	30									

LOG OF BORING

Shubin Nadai / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	30									
740		D-8		20			@ 30' Yellowish brown clayey SILT, moist, medium stiff, micaceous, massive, plastic, porous, slightly laminated.	13.9	112.5	
							Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
	35									
	40									
730										
	45									
	50									
720										
	55									
	60									
710										
	65									

LOG OF BORING
Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG

Date(s) Drilled	6/26/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-11

Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	772.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	**Artificial Fill (Af)** Surface: Yellowish brown silty SAND, dry, grass, weeds.			
770			D-1	16			@ 2.5' Yellowish brown fine-grained silty SAND, moist, medium dense, micaceous, massive, trace gravel.	5.9	119.1	
	5		D-2	8		ML	**Alluvium (Qal)** @ 5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive.	10.6	107.7	CN
			D-3	12			@ 7.5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive.	12.4	108.2	
	10		D-4	10			@ 10' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive.	15.7	109.0	
760										
	15		D-5	11			@ 15' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive, trace gravel, trace root-hairs.	16.9	105.1	
	20		D-6	32		SP-SM	@ 20' Light yellowish brown medium-grained SAND/ silty SAND, moist, dense, micaceous, trace gravel.	2.7	112.6	
750										
	25		D-7	12				11.2	98.1	
	30									

LOG OF BORING

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	30	D	8	14		SP	@ 30' Light olive brown silty gravelly SAND, moist, medium dense, 3/4" gravel.	8.9	119.7	
-740							Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings.			
	35									
	40									
-730										
	45									
	50									
-720										
	55									
	60									
-710										
	65									

LOG OF BORING
Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG

Date(s) Drilled	6/26/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Bulk, Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-12

Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	774.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	**Artificial Fill (Af)** Surface: Yellowish brown silty SAND, dry, weeds, roots.			
770			D-1	14			@ 2.5' Yellowish brown fine-grained silty SAND, moist, medium dense, micaceous, rock fragments, roots, massive.	5.8	106.8	B-1 @ 0'-5', CC, RV, MD, AL, GS, EI
	5		D-2	14		ML	**Alluvium (Qal)** @ 5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, trace gravel, trace root-hairs, massive.	9.3	109.5	
			D-3	14			@ 7.5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, trace gravel, massive.	6.7	116.7	
	10		D-4	12			@ 10' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, trace gravel, massive.	12.6	109.0	
760										
	15		D-5	18			@ 15' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, trace gravel, massive, slightly plastic.	14.4	107.1	
	20		D-6	17		SP-SM	@ 20' Light yellowish brown fine-grained SAND/ silty SAND, moist, dense, micaceous, trace gravel.	3.0	104.0	
750										
	25		D-7	20		ML	@ 25' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, slightly laminated, non-plastic.	4.8	99.4	
	30									

LOG OF BORING

Shubin Nadal / Van Nuys
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PROJECT NO. 12069-01

NMG

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	30	D	8	15			@ 30' Reddish brown fine-grained sandy SILT, moist, stiff, micaceous, massive.	7.0	117.8	
-740	35						Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings.			
	40									
-730	45									
	50									
-720	55									
	60									
-710	65									

LOG OF BORING

Shubin Nadal / Van Nuys
Van Nuys, California

PROJECT NO. 12069-01

NMG

Date(s) Drilled	6/26/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-13

Sheet 1 of 1

Total Depth Drilled (ft)	11.5
Approximate Ground Surface Elevation (ft)	769.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						Surface: 4 inches of Asphaltic Concrete (AC).			
							7 inches of Aggregate Base (AB).			
						SM	**Alluvium (Qal)**			
			D-1	24			@ 2.5' Yellowish brown fine-grained silty SAND, moist, dense, micaceous, thin root-hairs, trace gravel, massive.	3.2	120.1	
	5		D-2	27			@ 5' Yellowish brown fine-grained silty SAND, moist, dense, micaceous, thin root-hairs, trace gravel, massive.	4.4	116.5	
			D-3	21			@ 7.5' Yellowish brown fine-grained silty SAND, moist, dense, micaceous, thin root-hairs, trace gravel, massive.	2.6	116.0	
760	10		D-4	23		SM-ML	@ 2.5' Yellowish brown fine-grained silty SAND/ sandy SILT, moist, stiff to dense, micaceous, thin root-hairs, trace gravel, massive, slightly porous.	5.5	112.3	
							Notes: Total Depth: 11.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
	15									
750	20									
	25									
740	30									

LOG OF BORING

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG

Report: HOLLOW STEM; Project: P:\2012\12069-01\GINT\12069-01.GPJ; Data Template: NMGNOV98.GDT; Printed: 11/13/12

Date(s) Drilled	6/26/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Bulk, Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-14

Sheet 1 of 1

Total Depth Drilled (ft)	11.5
Approximate Ground Surface Elevation (ft)	771.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						Surface: 3.5 inches of Asphaltic Concrete (AC).			
							4 inches of Aggregate Base (AB).			
770						SM	**Artificial Fill (Af)**			
			D-1	27			@ 2.5 Yellowish brown fine-grained silty SAND, moist, dense, micaceous, trace gravel, massive.	10.4	120.1	B-1 @ 0'-5'
	5		D-2	7		ML	**Alluvium (Qal)** @ 5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, non-plastic, thin root-hairs, slightly porous, massive.	10.9	116.5	
			D-3	13		SM-ML	@ 7.5' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, micaceous, non-plastic, massive.	12.3	116.0	
	10		D-4	11		ML	@ 10' Yellowish brown fine-grained sandy SILT, moist, medium stiff, non-plastic, slight $CaCO_3$.	12.2	112.3	
760										
							Notes: Total Depth: 11.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
	15									
	20									
750										
	25									
	30									

LOG OF BORING

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Date(s) Drilled	6/26/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Bulk, Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-15

Sheet 1 of 1

Total Depth Drilled (ft)	11.5
Approximate Ground Surface Elevation (ft)	771.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
770	0					SM	**Artificial Fill (Af)** Surface: Yellowish brown silty SAND, dry, grass.			
		D	D-1	17			@ 2.5' Yellowish brown fine-grained silty SAND, moist, medium dense, micaceous, massive, trace gravel.	8.7	116.1	B-1 @ 0'-5'
	5	D	D-2	8		ML	**Alluvium (Qal)** @ 5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, non-plastic.	12.8	104.0	
		D	D-3	14			@ 7.5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, non-plastic.	12.0	109.3	
760	10	D	D-4	12			@ 10' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, non-plastic.	11.1	101.9	
							Notes: Total Depth: 11.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings.			
750	15									
	20									
	25									
	30									

LOG OF BORING
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Date(s) Drilled	6/25/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-2

Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	772.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM	Surface: 2 inches of Asphaltic Concrete (AC), No Base. **Artificial Fill (Af)** Yellowish brown fine-grained silty SAND, moist.			
770						ML	**Alluvium (Qal)**			
			D-1	7			@ 2.5' Yellowish brown fine-grained sandy SILT, moist, soft, micacious, slightly plastic.	12.6	101.6	
	5		D-2	10			@ 5' Yellowish brown fine-grained sandy SILT, moist, soft, micacious, slightly plastic, slightly porous, massive.	12.6	112.8	DS
			D-3	15			@ 7.5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micacious, slightly plastic, slightly porous, massive.	8.1	115.1	
	10		D-4	15			@ 10' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micacious, slightly plastic, massive, trace gravel.	7.0	109.0	
760										
	15		D-5	15			@ 15' Yellowish brown fine-grained sandy clayey SILT, moist, medium stiff, micacious, plastic, slightly porous, laminated.	14.1	100.4	
	20		D-6	18			@ 20' Yellowish brown fine-grained sandy SILT, moist, stiff, slight $CaCO_3$ stringers, slightly plastic, micaceous.	16.1	111.0	
750										
	25		D-7	20		ML-CL	@ 25' Yellowish brown fine-grained sandy SILT, moist, stiff, slight $CaCO_3$ stringers, slightly plastic, micaceous. Tip: Reddish brown clayey SILT/ silty CLAY, moist, stiff, plastic, micaceous, porous.	14.5	110.5	
	30									

LOG OF BORING

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Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	30		D-8	27			@ 30' Reddish brown clayey SILT/ silty CLAY, moist, stiff, plastic, porous, micaceous.	20.0	106.7	
740							Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
	35									
	40									
730										
	45									
	50									
720										
	55									
	60									
710										
	65									

LOG OF BORING
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PROJECT NO. 12069-01

NMG

Date(s) Drilled	6/26/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Bulk, Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-3

Sheet 1 of 1

Total Depth Drilled (ft)	14.0
Approximate Ground Surface Elevation (ft)	772.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0					SM-ML	Surface: 3 inches of Asphaltic Concrete (AC), No Base. **Artificial Fill (Af)**			
770			D-1	9			@ 2.5' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, micaceous, massive, slightly plastic.	5.9	113.6	
	5		D-2	9		ML	**Alluvium (Qal)** @ 5' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, micaceous, massive, slightly plastic.	12.1	109.6	
			D-3	10			@ 7.5' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, micaceous, massive, non-plastic.	13.0	106.6	B-1 @ 5'-10', CC, AL, GS, EI
	10		D-4	9			@ 10' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, micaceous, massive, non-plastic, slight $CaCO_3$.	10.5	110.8	
760			D-5	10			@ 12.5' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, micaceous, massive, non-plastic, slight $CaCO_3$.	10.2	107.0	
	15						Notes: Total Depth: 14 Feet. Groundwater Not Encountered. Percolation Test. Backfilled with Cuttings. AC Patched.			
	20									
750										
	25									
	30									

LOG OF BORING

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Van Nuys, California
PROJECT NO. 12069-01

NMG

Date(s) Drilled	6/25/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-4

Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	773.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						Surface: 2 inches of Asphaltic Concrete (AC).			
						SM	4 inches of Aggregate Base (AB).			
							Artificial Fill (Af)			
770		D	1	22			@ 2.5' Yellowish brown fine-grained silty SAND, moist, medium dense, massive.	3.7	115.3	
	5	D	2	25		ML	**Alluvium (Qal)** @ 5' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, slightly plastic, micaceous, porous, massive.	6.6	106.9	Collapse
		D	3	23			@ 7.5' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, slightly plastic, micaceous, porous, massive.	5.5 6.2 5.3	104.5 102.9 97.4	CN, Collapse
	10	D	4	25			@ 10' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, slightly plastic, micaceous, porous, massive, slight $CaCO_3$.	7.6	109.1	
760										
	15	D	5	24			@ 15' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, slightly plastic, micaceous, porous, massive, slight $CaCO_3$.	8.9	99.0	
	20	D	6	23			@ 20' Light yellowish brown fine-grained sandy SILT, moist, medium stiff, slightly plastic, slightly porous, local silty SAND layers.	4.2	106.6	
750										
	25	D	7	29			@ 25' Light yellowish brown fine-grained sandy SILT, moist, stiff to hard, porous, slight $CaCO_3$.	5.8	109.3	
	30									

LOG OF BORING

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NMG

Elevation (ft)	Depth (ft)	SAMPLES Type Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	30	D-8	28			@ 30' Reddish brown fine-grained sandy SILT, moist, stiff to hard, porous, slight $CaCO_3$.	8.8	110.8	
-740						Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
	35								
	40								
-730									
	45								
	50								
-720									
	55								
	60								
-710									
	65								

LOG OF BORING
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PROJECT NO. 12069-01

NMG

Date(s) Drilled	6/25/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

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Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	774.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						Surface: 4 inches of Asphaltic Concrete (AC).			
						SM	3 inches of Aggregate Base (AB).			
							Artificial Fill (Af)			
770		D	1	10			@ 2.5' Yellowish brown fine-grained silty SAND, moist, medium dense, slightly porous, massive, root-hairs.	3.9	107.4	
	5	D	2	19		SM-ML	**Alluvium (Qal)** @ 5' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, slightly porous, massive, root-hairs.	5.1	103.9	Collapse
		D	3	18			@ 7.5' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, slightly porous, massive, root-hairs.	3.5	114.0	
	10	D	4	21		ML	@ 10' Yellowish brown fine-grained sandy SILT, moist, stiff, porous, slight $CaCO_3$, trace root-hairs, slightly plastic.	8.4	107.5	
760										
	15	D	5	20			@ 15' Yellowish brown fine-grained sandy SILT, moist, stiff, porous, slight $CaCO_3$, slightly plastic.	10.7	104.5	
	20	D	6	25			@ 20' Light yellowish brown fine-grained sandy SILT, moist, stiff, massive, trace root-hairs, micaceous.	7.7	108.3	
750										
	25	D	7	22		SM	@ 25' Light yellowish brown fine-grained silty SAND, moist, dense, micaceous.	4.5	111.4	
	30									

LOG OF BORING

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Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	30		D-8	23		SM-ML	@ 30' Reddish brown fine-grained silty SAND/ sandy SILT, moist, stiff to dense, porous, slightly micaceous, massive, slightly plastic, trace gravel.	8.0	117.6	
-740	35						Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
	40									
-730	45									
	50									
-720	55									
	60									
-710	65									

LOG OF BORING
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Van Nuys, California
PROJECT NO. 12069-01

NMG

Date(s) Drilled	6/26/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

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Sheet 1 of 1

Total Depth Drilled (ft)	9.0
Approximate Ground Surface Elevation (ft)	775.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						Surface: 3 inches of Asphaltic Concrete (AC).			
						SM	3 inches of Aggregate Base (AB).			
							Artificial Fill (Af)			
			D-1	25			@ 2.5' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium loose, micaceous, massive.	9.0	121.5	
770	5		D-2	6		SM-ML	**Alluvium (Qal)** @ 5' Yellowish brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, micaceous, massive, non-plastic.	10.0	107.0	
			D-3	13		ML	@ 7.5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive.	17.3	108.3	
	10						Notes: Total Depth: 9 Feet. Groundwater Not Encountered. Percolation Test. Backfilled with Cuttings. AC Patched.			
760	15									
	20									
750	25									
	30									

LOG OF BORING

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NMG

Date(s) Drilled	6/25/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Bulk, Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

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Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	773.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						Surface: 3 inches of Asphaltic Concrete (AC).			
						SM	5 inches of Aggregate Base (AB).			
							Artificial Fill (Af)			
770			D-1	30			@ 2.5' Brown fine-grained silty SAND, moist, dense, micaceous, massive, trace gravel.	9.7	126.0	B-1 @ 0'-5'
	5		D-2	8		SM-ML	**Alluivum (Qal)** @ 5' Brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, micaceous, slightly plastic.	10.7	112.6	
			D-3	10			@ 7.5' Brown fine-grained sandy SILT/ silty SAND, moist, medium stiff to medium dense, micaceous, slightly plastic.	11.0	115.7	DS
	10		D-4	8		ML	@ 10' Brown clayey SILT, medium stiff, micaceous, plastic.	23.1	100.4	
760										
	15		D-5	9			@ 15' Brown clayey SILT, medium stiff, micaceous, plastic.	16.3	107.9	
	20		D-6	25		SM	@ 20' Light reddish brown silty SAND, dense, micaceous.	6.6	105.8	
750										
	25		D-7	21			@ 25' Light reddish brown silty SAND, dense, micaceous. Tip: Gravelly SAND	6.0	112.9	
	30									

LOG OF BORING

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Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	30	D	8	13			@ 30' Reddish brown fine-grained silty SAND, medium dense, trace gravel.	13.1	117.0	
740							Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
	35									
	40									
730										
	45									
	50									
720										
	55									
	60									
710										
	65									

LOG OF BORING
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Van Nuys, California
PROJECT NO. 12069-01

NMG

Report: HOLLOW STEM; Project: P:\2012\12069-01\GINT\12069-01.GPJ; Data Template: NMGNOV98.GDT; Printed: 11/13/12

Date(s) Drilled	6/26/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

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Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	773.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						Surface: 3.5 inches of Asphaltic Concrete (AC).			
						SM	2 inches of Aggregate Base (AB).			
							Artificial Fill (Af)			
770			D-1	34			@ 2.5' Brown fine-grained silty SAND, moist, medium loose, micaceous, massive.	9.0	124.6	
	5		D-2	6		ML	**Alluvium (Qal)** @ 5' Yellowish brown fine-grained sandy SILT, moist, soft, micaceous, massive.	11.0	104.9	DS
			D-3	10			@ 7.5' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive.	13.0	110.3	
	10		D-4	8			@ 10' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive.	12.7	112.3	
760										
	15		D-5	12			@ 15' Yellowish brown fine-grained sandy SILT, moist, medium stiff, micaceous, massive, slightly laminated, slightly plastic.	17.1	110.4	
	20		D-6	20		SM	@ 20' Light yellowish brown fine-grained silty SAND, moist, dense, micaceous.	8.9	108.9	
750										
	25		D-7	17		ML	@ 25' Yellowish brown clayey SILT, moist, medium stiff, micaceous, locally plastic.	18.4	100.0	
	30									

LOG OF BORING

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Elevation (ft)	Depth (ft)	SAMPLES Type Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	30	D-8	17			@ 30' Reddish brown fine-grained sandy SILT, moist, stiff, micaceous, slightly laminated.	14.4	114.2	
740						Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
	35								
	40								
730									
	45								
	50								
720									
	55								
	60								
710									
	65								

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NMG

Date(s) Drilled	6/25/12	Logged By	CD
Drilling Company	2R Drilling	Drill Bit Size/Type	8"
Drill Rig Type	CME 55	Hammer Data	140 lbs @ 30" drop (auto)
Sampling Method(s)	Modified California		
Approximate Groundwater Depth:	Groundwater Not Encountered		
Comments			

H-9

Sheet 1 of 2

Total Depth Drilled (ft)	31.5
Approximate Ground Surface Elevation (ft)	771.0

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
	0						Surface: 3.5 inches of Asphaltic Concrete (AC).			
770						SM-ML	4 inches of Aggregate Base (AB).			
							Artificial Fill (Af)			
		D	D-1	7			@ 2.5' Brown fine-grained silty SAND/ sandy SILT, moist, medium dense, micaceous, massive.	11.3	112.4	
	5	D	D-2	10		ML	**Alluvium (Qal)** @ 5' Brown fine-grained sandy SILT, moist, medium stiff, micaceous, slightly plastic.	13.0	114.5	
		D	D-3	10			@ 7.5' Brown fine-grained sandy SILT, moist, medium stiff, micaceous, slightly plastic.	17.6	106.9	
760	10	D	D-4	11			@ 10' Yellowish brown clayey SILT, moist, medium stiff, micaceous, plastic, slight $CaCO_3$, slightly laminated.	20.3	105.4	
	15	D	D-5	13			@ 15' Yellowish brown clayey SILT, moist, medium stiff, micaceous, plastic, slight $CaCO_3$, slightly laminated.	16.4	107.0	
750	20	D	D-6	11		SM	@ 20' Yellowish brown fine-grained silty SAND, moist, medium dense, micaceous, massive, local sand.	10.3	103.8	
	25	D	D-7	25			@ 25' Reddish brown fine-grained silty SAND, moist, dense, micaceous, FeO staining.	19.3	99.9	
	30									

LOG OF BORING

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG

Elevation (ft)	Depth (ft)	SAMPLES Type	SAMPLES Number	SAMPLES Blows per foot	Graphic Log	USCS	MATERIAL DESCRIPTION	Moisture Content (%)	Dry Density (pcf)	OTHER TESTS and REMARKS
740	30		D-8	30			@ 30' Reddish brown silty SAND, moist, dense, micaceous, scattered gravel.	10.3	128.1	
							Notes: Total Depth: 31.5 Feet. Groundwater Not Encountered. Backfilled with Cuttings. AC Patched.			
730	40									
720	50									
710	60									
	65									

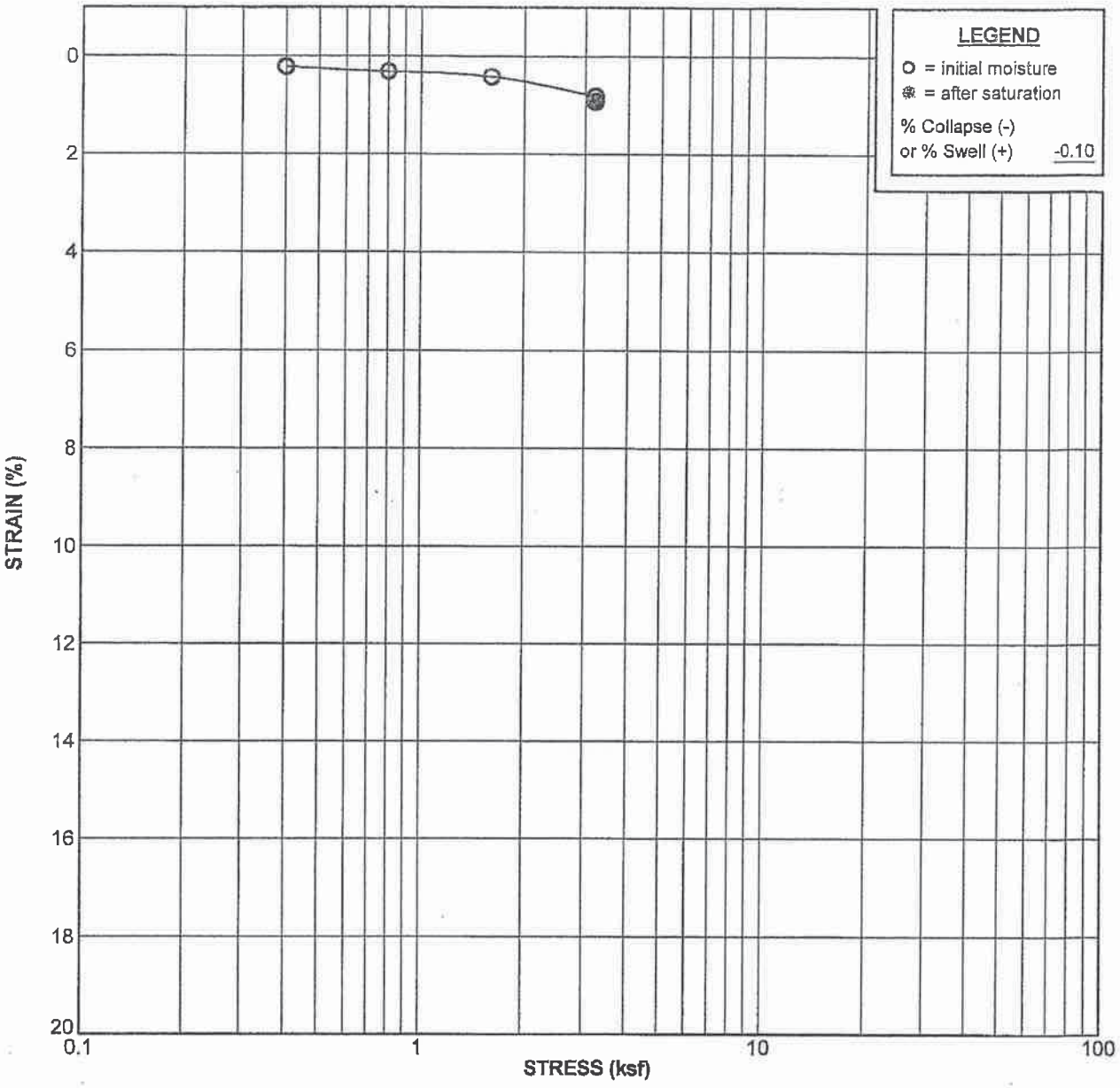
LOG OF BORING

Shubin Nadal / Van Nuys
Van Nuys, California

PROJECT NO. 12069-01

NMG

APPENDIX C



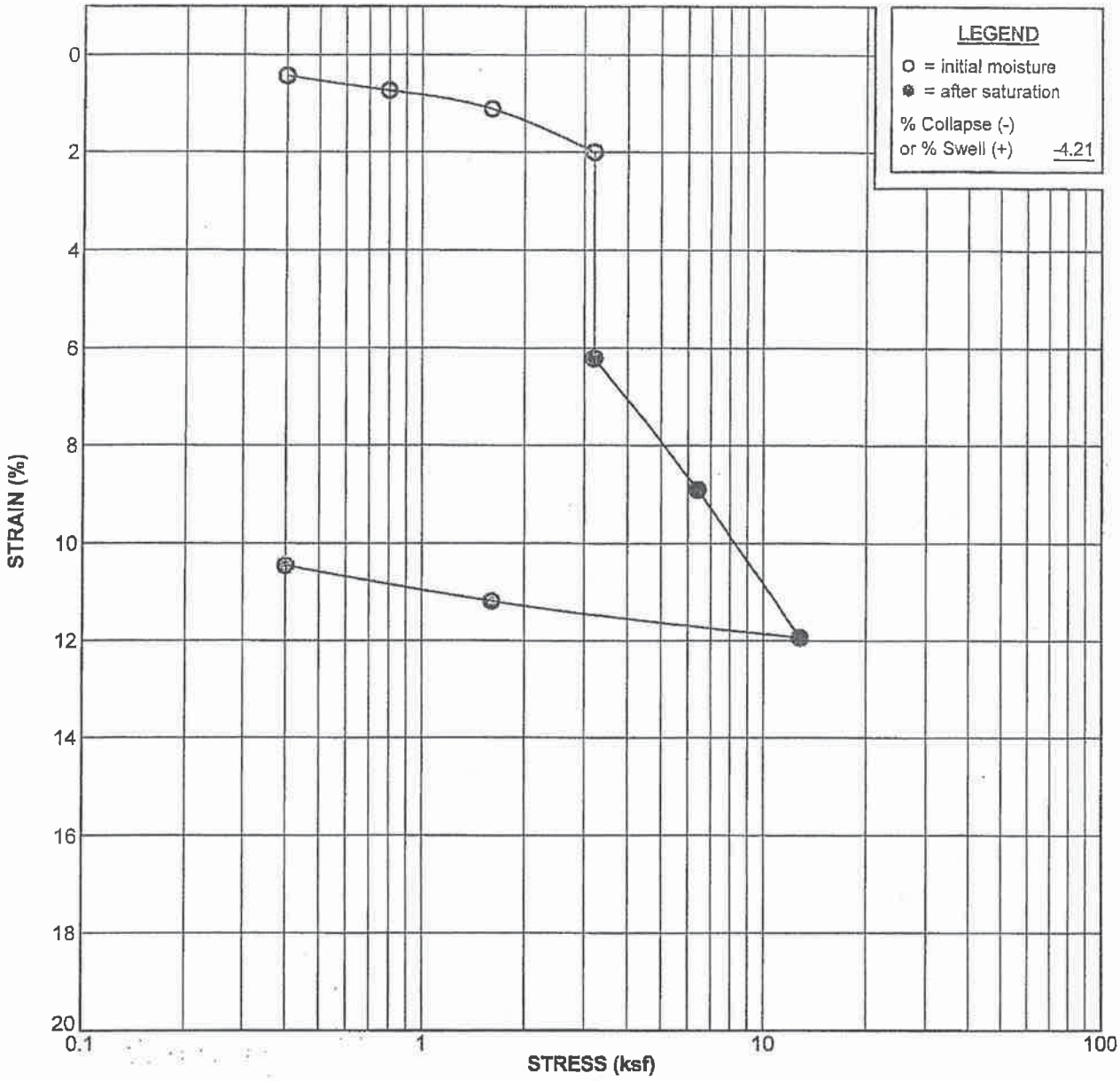
Boring No. H-4	Sample No. D-2	Depth: 5.0 ft
Sample Description:	Light Yellowish Brown Fine-Grained Sandy SILT	
Liquid Limit:	Plasticity Index:	Percent Passing No. 200 Sieve:

Test Stage	Moisture Content (%)	Dry Density (pcf)	Degree of Saturation (%)	Void Ratio
Initial	5.9	106.8	27.6	0.578
Final	21.8	107.7	104.3	0.564

CONSOLIDATION TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



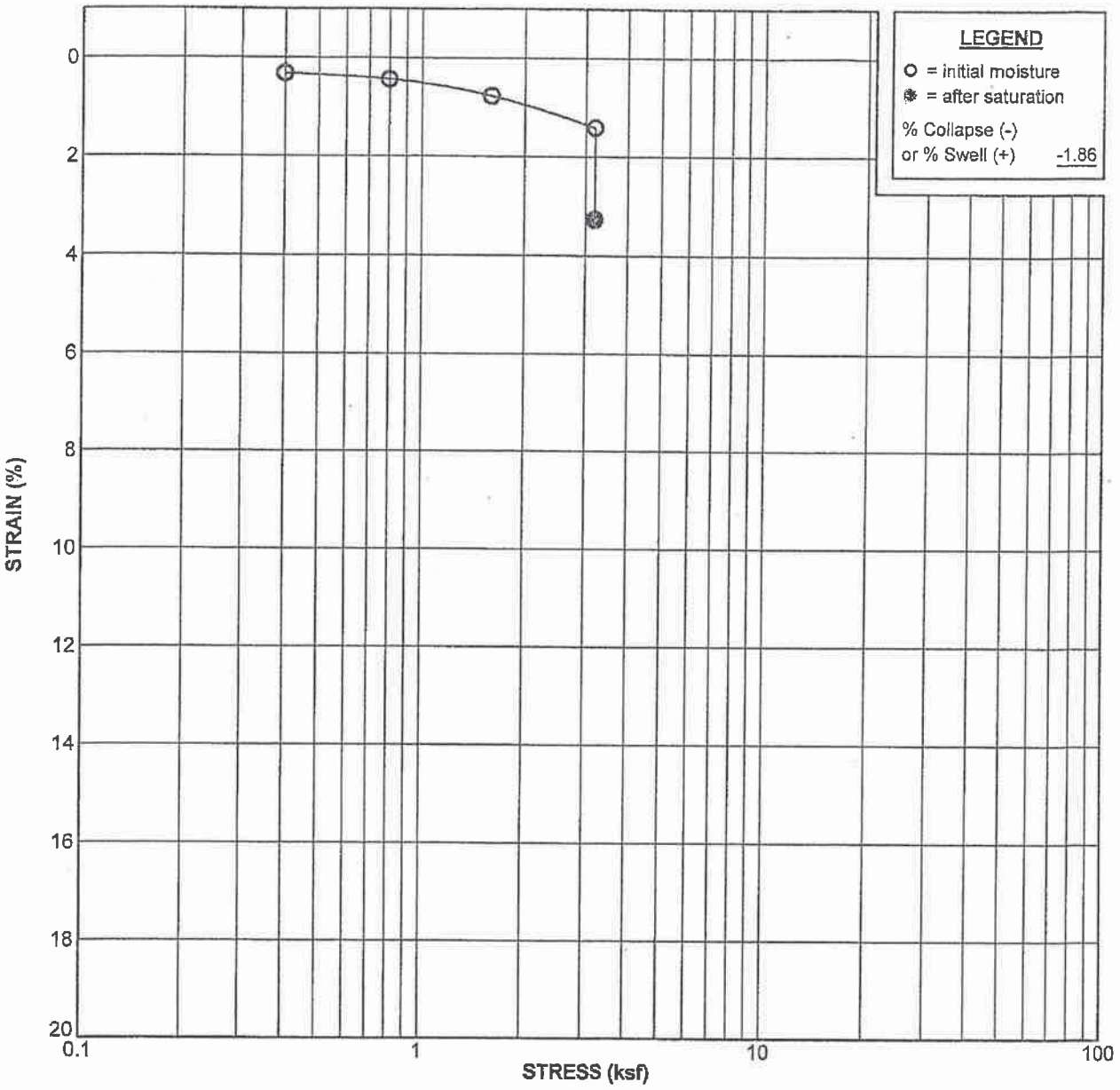
Boring No. H-4	Sample No. D-3	Depth: 7.5 ft
Sample Description:	Light Yellowish Brown Fine-Grained Sandy SILT	
Liquid Limit:	**Plasticity Index:**	**Percent Passing No. 200 Sieve:**

Test Stage	Moisture Content (%)	Dry Density (pcf)	Degree of Saturation (%)	Void Ratio
Initial	5.5	111.5	28.1	0.539
Final	20.7	123.2	144.9	0.393

CONSOLIDATION TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



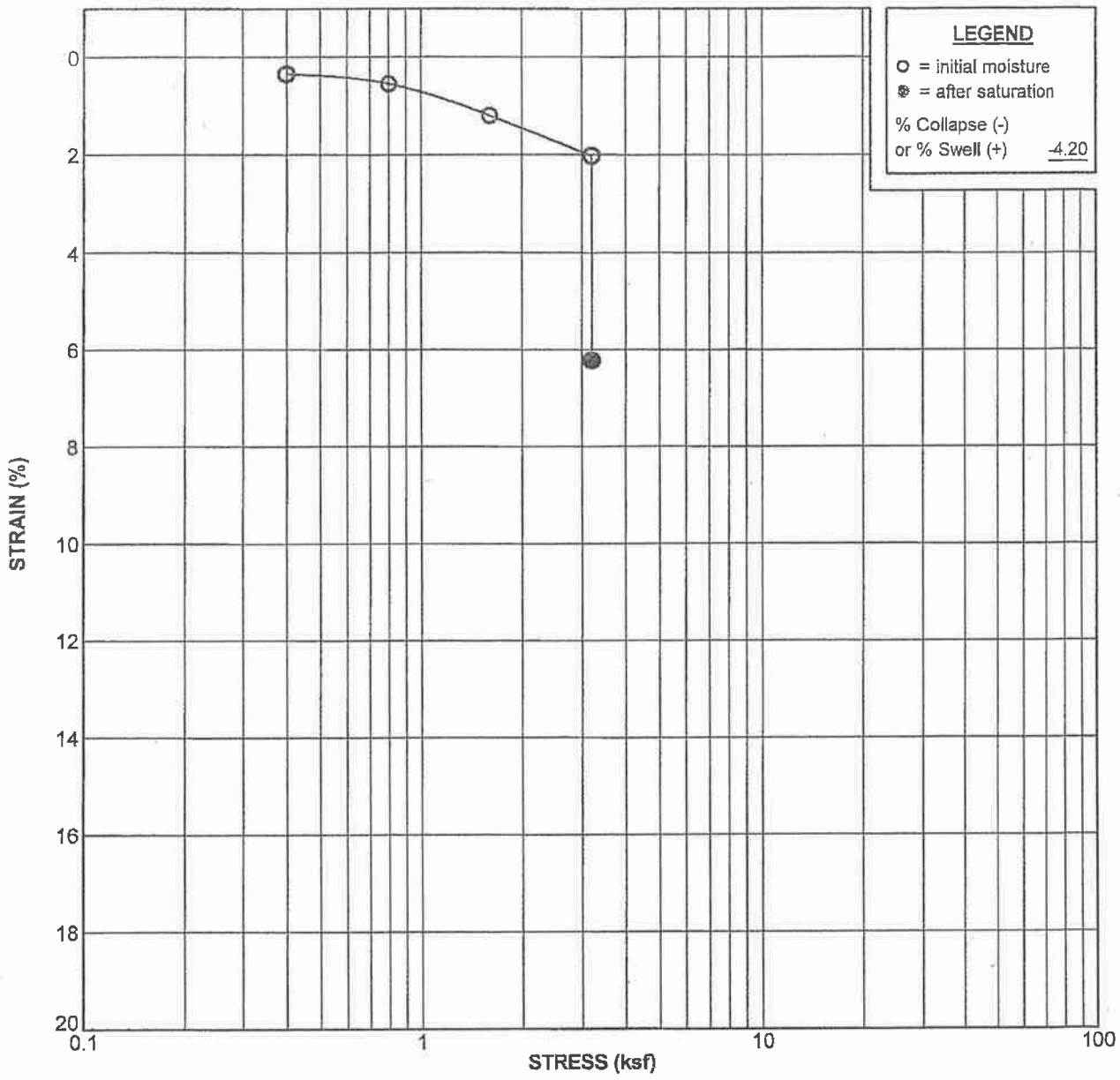
Boring No. H-4	Sample No. D-3A	Depth: 7.5 ft
Sample Description:	Light Yellowish Brown Fine-Grained Sandy SILT	
Liquid Limit:	Plasticity Index:	Percent Passing No. 200 Sieve:

Test Stage	Moisture Content (%)	Dry Density (pcf)	Degree of Saturation (%)	Void Ratio
Initial	6.2	102.9	25.5	0.668
Final	22.5	106.3	100.7	0.614

CONSOLIDATION TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



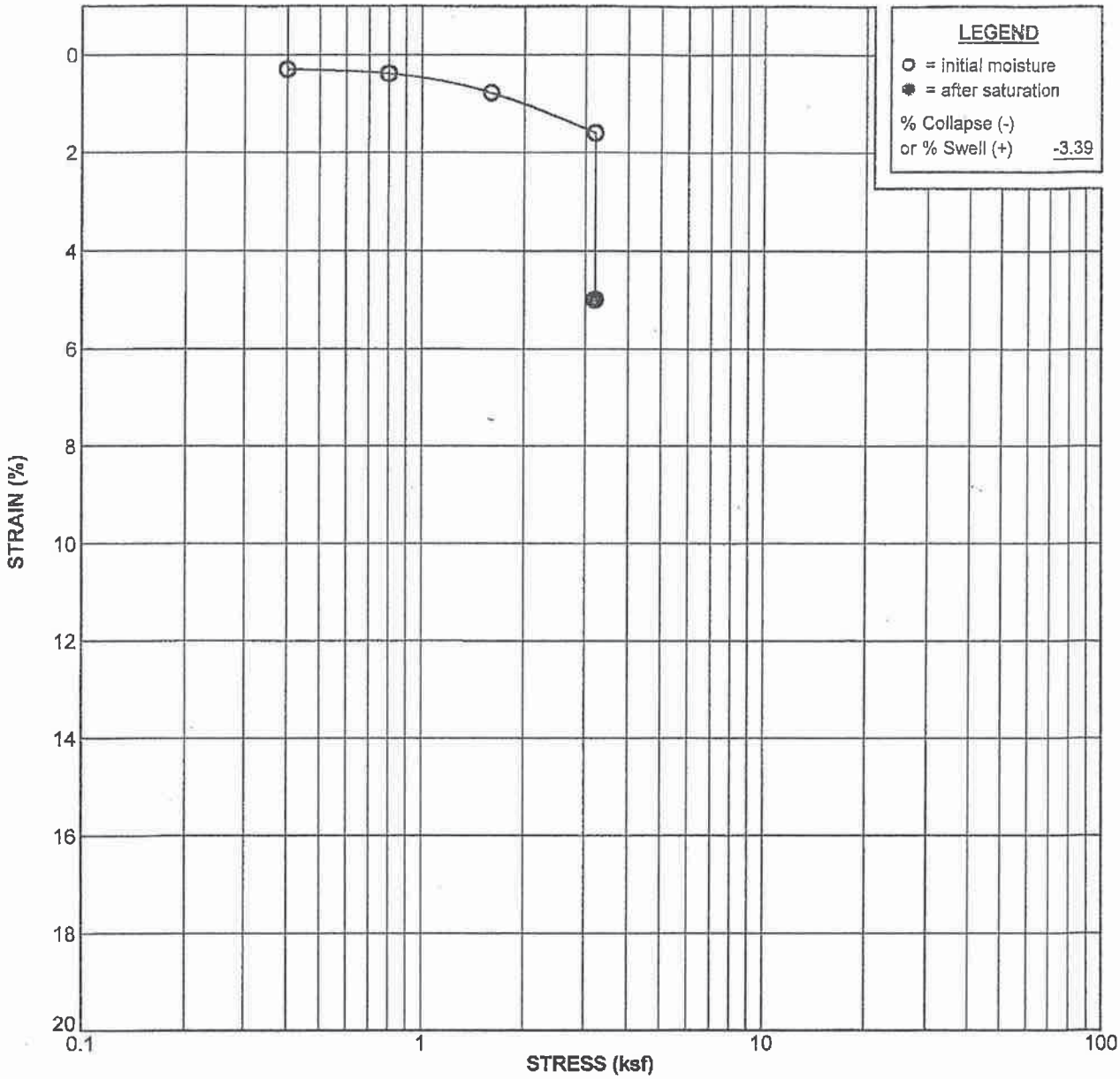
Boring No. H-4	Sample No. D-3B	Depth: 7.5 ft
Sample Description:	Light Yellowish Brown Fine-Grained Sandy SILT	
Liquid Limit:	Plasticity Index:	Percent Passing No. 200 Sieve:

Test Stage	Moisture Content (%)	Dry Density (pcf)	Degree of Saturation (%)	Void Ratio
Initial	5.3	97.4	19.1	0.762
Final	23.0	103.5	96.1	0.658

CONSOLIDATION TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



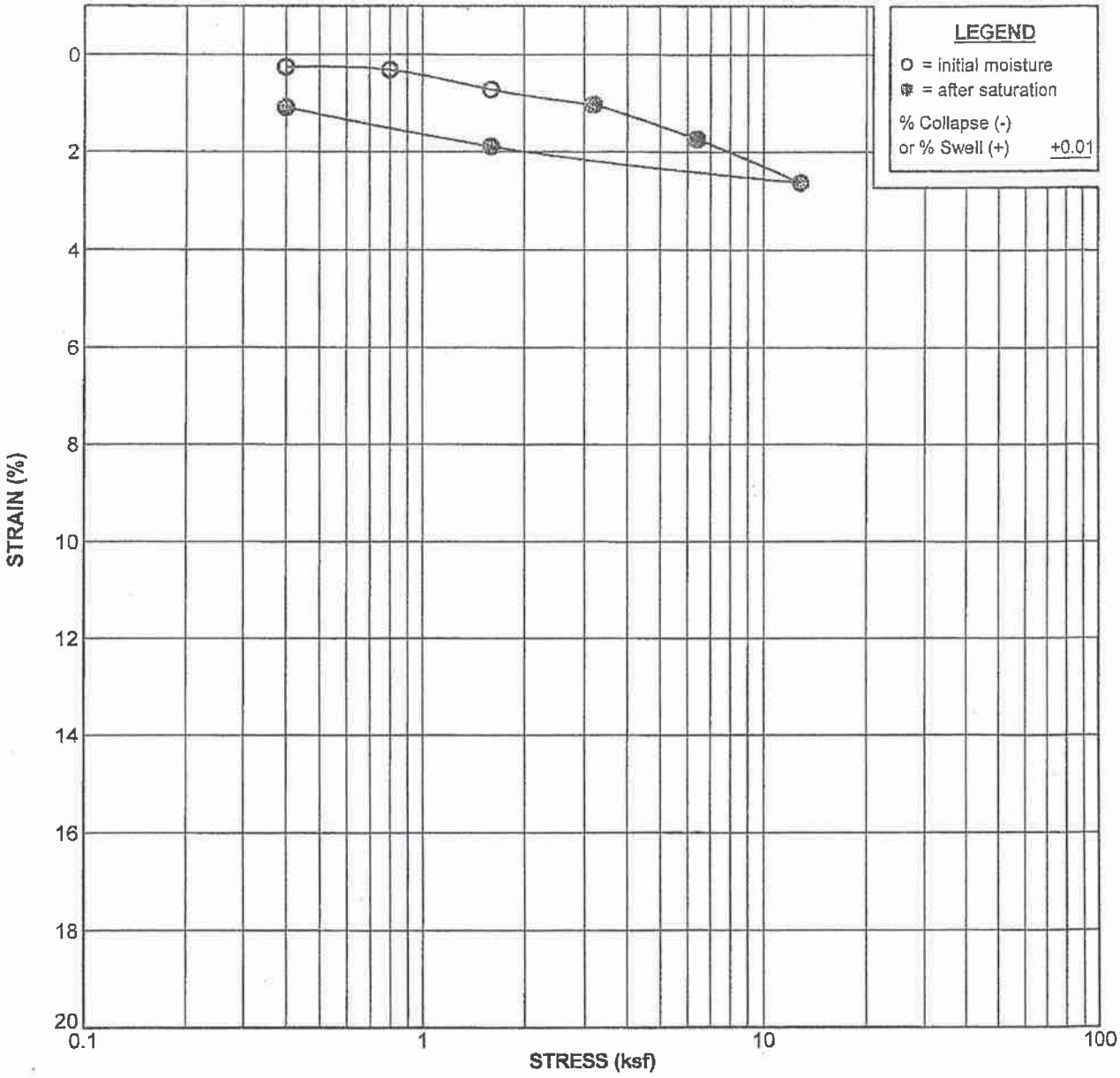
Boring No. H-5	Sample No. D-2	Depth: 5.0 ft
Sample Description:	Yellowish Brownn Fine-Grained Sandy SILT/ Silty SAND	
Liquid Limit:	Plasticity Index:	Percent Passing No. 200 Sieve:

Test Stage	Moisture Content (%)	Dry Density (pcf)	Degree of Saturation (%)	Void Ratio
Initial	6.3	92.7	21.3	0.784
Final	26.7	97.3	101.2	0.699

CONSOLIDATION TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



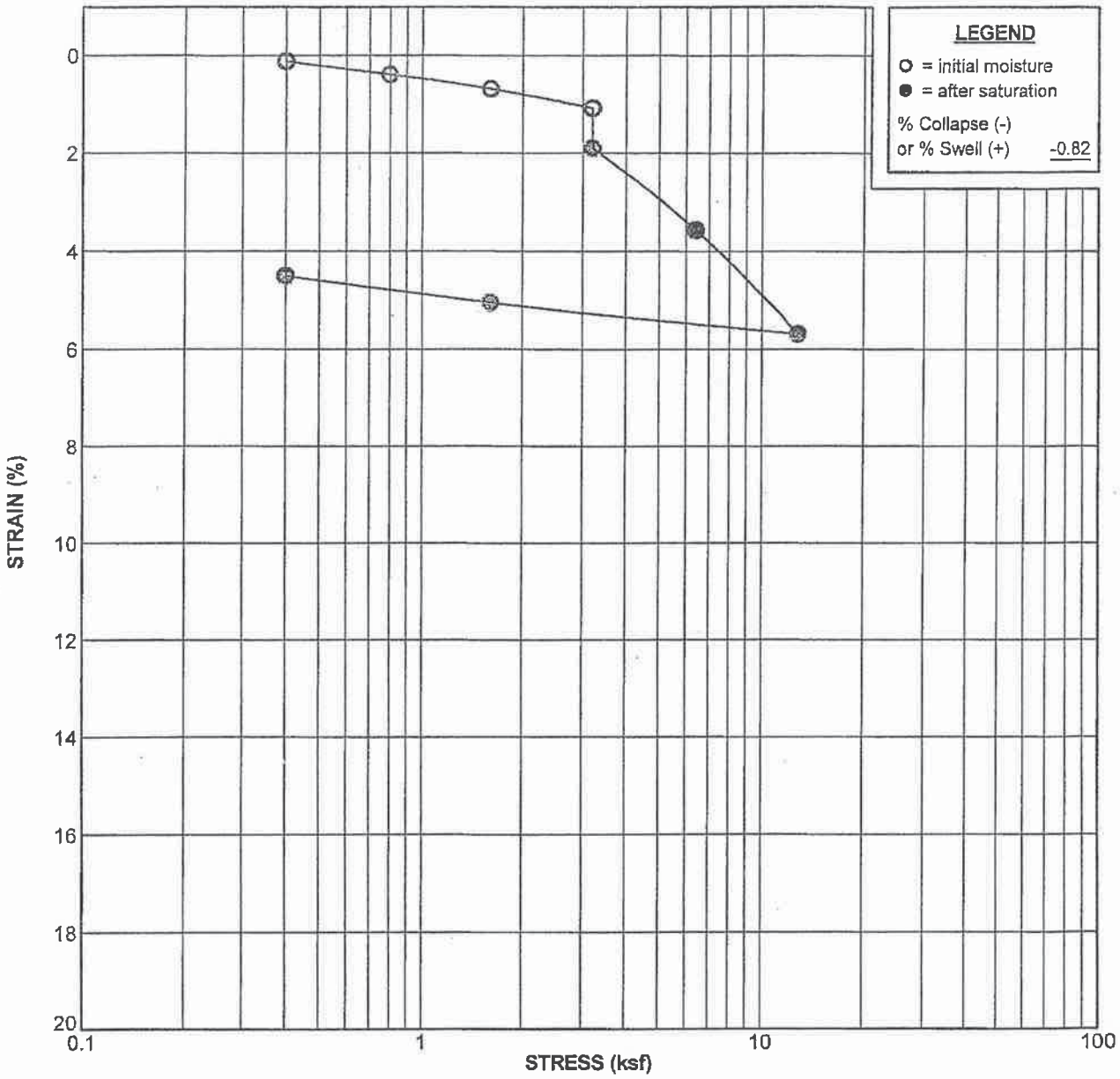
Boring No. H-10	Sample No. D-2	Depth: 5.0 ft
Sample Description:	Yellowish Brown Fine-Grained Sandy SILT	
Liquid Limit:	Plasticity Index:	Percent Passing No. 200 Sieve:

Test Stage	Moisture Content (%)	Dry Density (pcf)	Degree of Saturation (%)	Void Ratio
Initial	12.5	116.2	78.3	0.423
Final	16.4	117.5	106.7	0.407

CONSOLIDATION TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



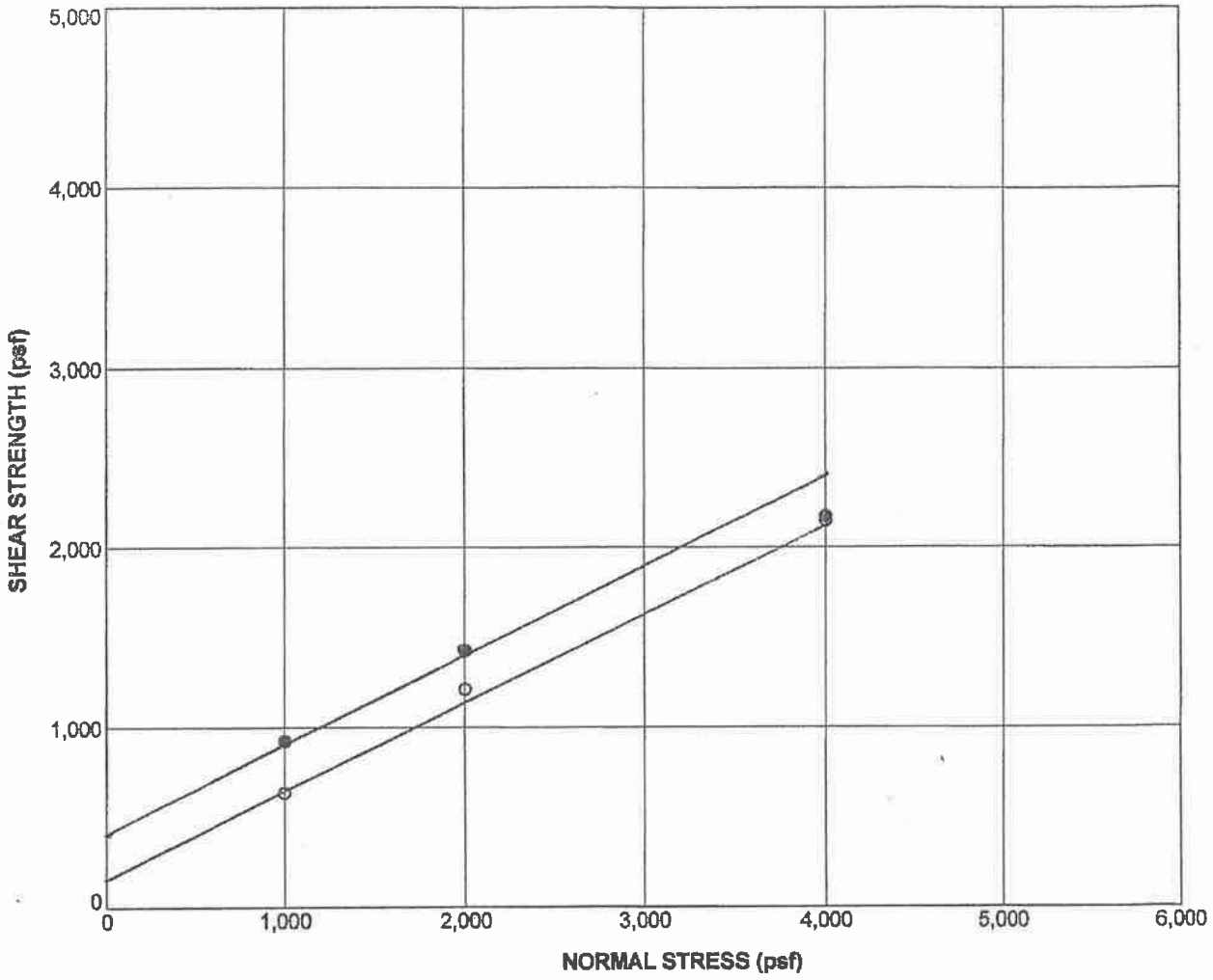
Boring No. H-11	Sample No. D-2	Depth: 5.0 ft
Sample Description:	Yellowish Brown Fine-Grained Sandy SILT	
Liquid Limit:	Plasticity Index:	Percent Passing No. 200 Sieve:

Test Stage	Moisture Content (%)	Dry Density (pcf)	Degree of Saturation (%)	Void Ratio
Initial	10.9	99.4	43.5	0.664
Final	22.7	103.9	101.7	0.592

CONSOLIDATION TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



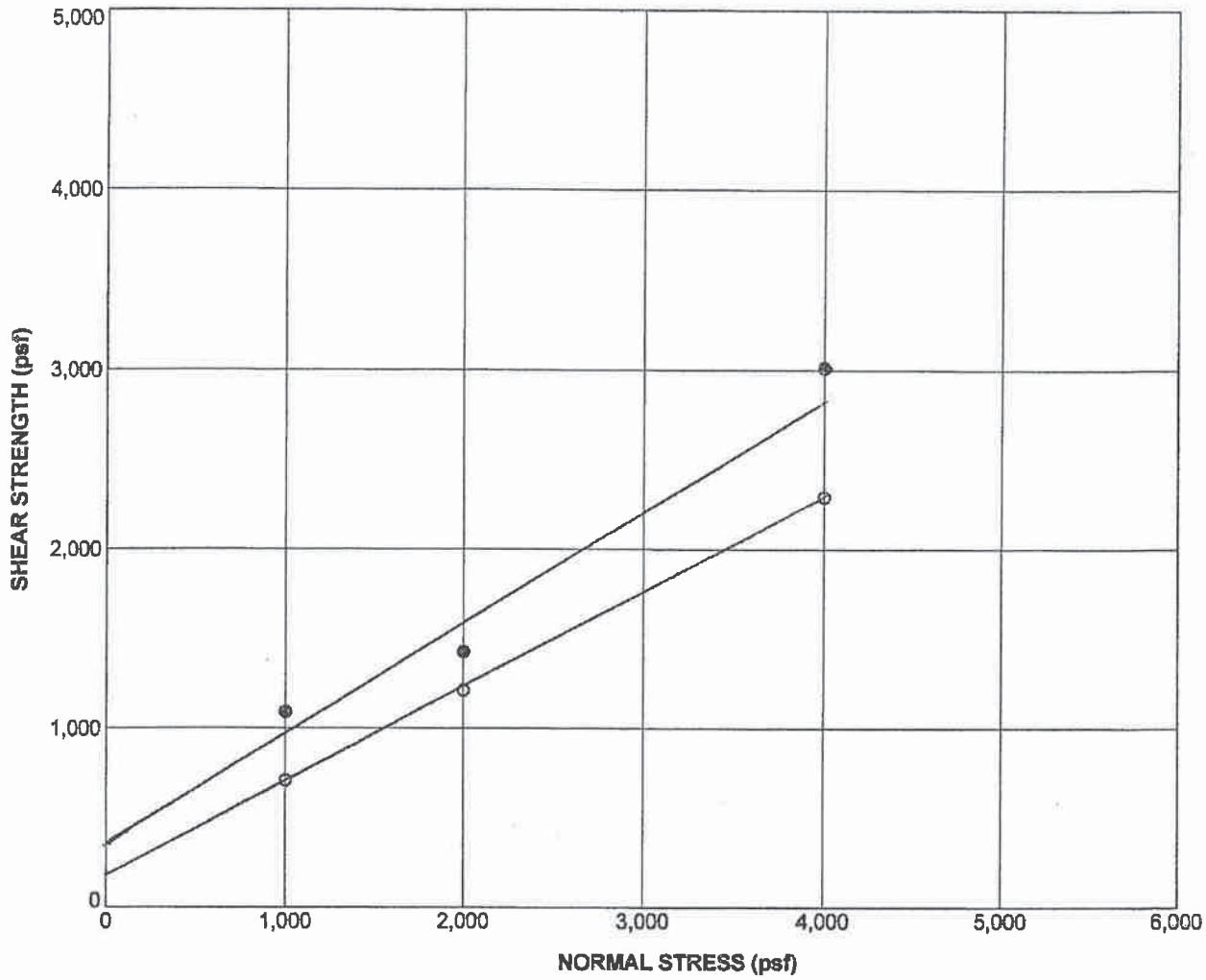
Boring No. H-2	Sample No. D-2	Depth: 5.0 ft
Sample Description:	Yellowish Brown Fine-Grained Sandy SILT	
Liquid Limit:	Plasticity Index:	Percent Passing No. 200 Sieve:
Moisture Content (%): 21.6	Dry Density (pcf): 109.1	Degree of Saturation (%): 99
Sample Type: Undisturbed	Rate of Shear (in./min.): 0.005	

SHEAR STRENGTH PARAMETERS		
Parameter	Peak ●	Ultimate ○
Cohesion (psf)	400	175
Friction Angle (degrees)	27	26.0

DIRECT SHEAR TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



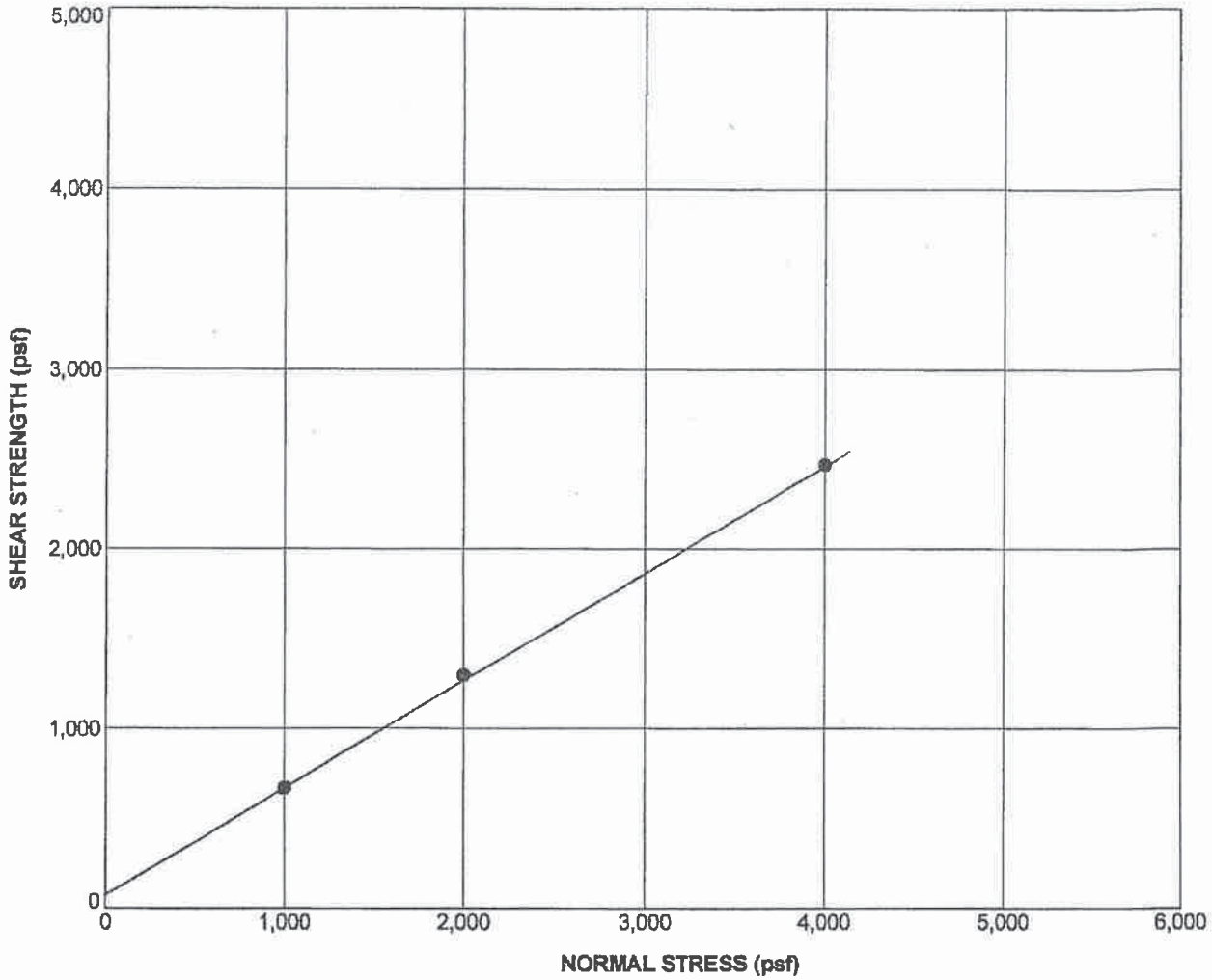
Boring No. H-7	Sample No. D-1	Depth: 2.5 ft
Sample Description:	Olive Brown Silty SAND	
Liquid Limit:	Plasticity Index:	Percent Passing No. 200 Sieve:
Moisture Content (%): 18.4	Dry Density (pcf): 117.0	Degree of Saturation (%): 100
Sample Type: Undisturbed	Rate of Shear (in./min.): 0.05	

SHEAR STRENGTH PARAMETERS		
Parameter	Peak ●	Ultimate ○
Cohesion (psf)	350	175
Friction Angle (degrees)	31	27.0

DIRECT SHEAR TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



Boring No. H-8		Sample No. D-2		Depth: 5.0 ft	
Sample Description:	Yellowish Brown Sandy SILT				
Liquid Limit:		Plasticity Index:		Percent Passing No. 200 Sieve:	
Moisture Content (%):	23.2	Dry Density (pcf):	103.4	Degree of Saturation (%):	100
Sample Type:	Undisturbed	Rate of Shear (in./min.):	0.005		

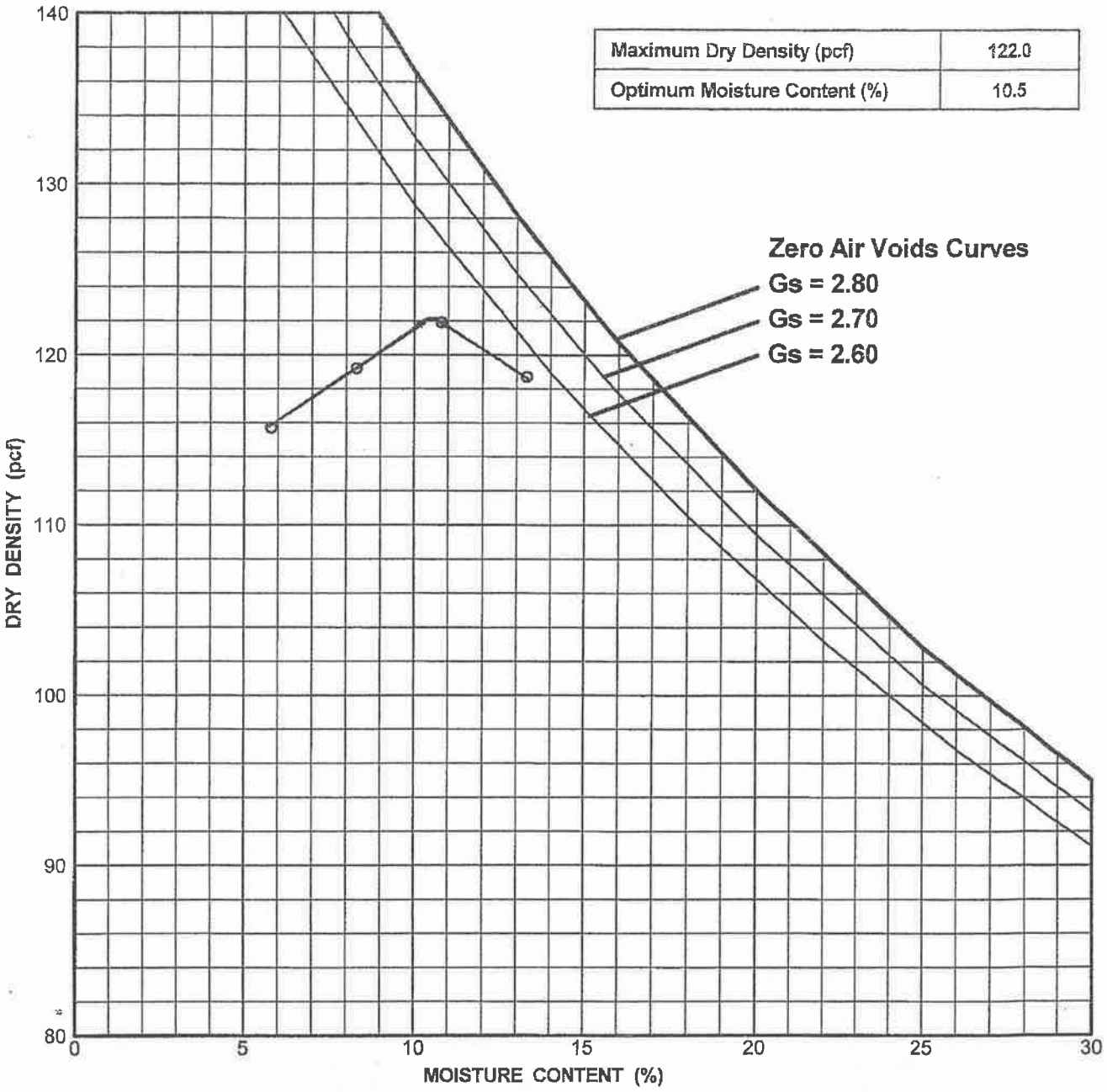
SHEAR STRENGTH PARAMETERS		
Parameter	Peak ●	Ultimate ○
Cohesion (psf)	75	75
Friction Angle (degrees)	29	29.0

DIRECT SHEAR TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.

Maximum Dry Density (pcf)	122.0
Optimum Moisture Content (%)	10.5



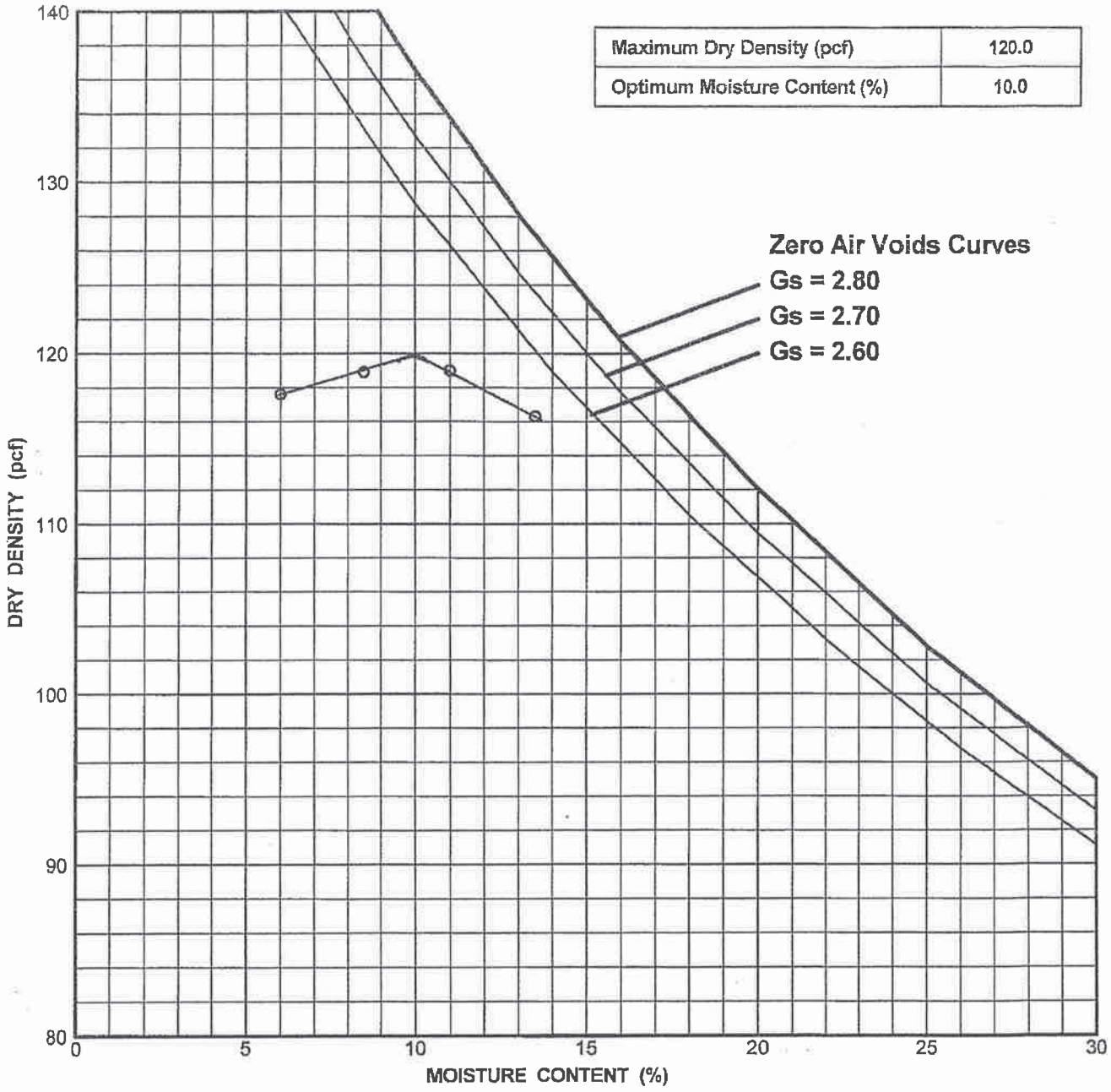
Boring No. H-12	Sample No. B-1	Depth: 2.5 ft
Sample Description: Yellowish Brown Silty SAND		
Liquid Limit: NP	Plasticity Index: NP	Percent Passing No. 200 Sieve: 48
Comments: 1557A		

COMPACTION TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.

Maximum Dry Density (pcf)	120.0
Optimum Moisture Content (%)	10.0

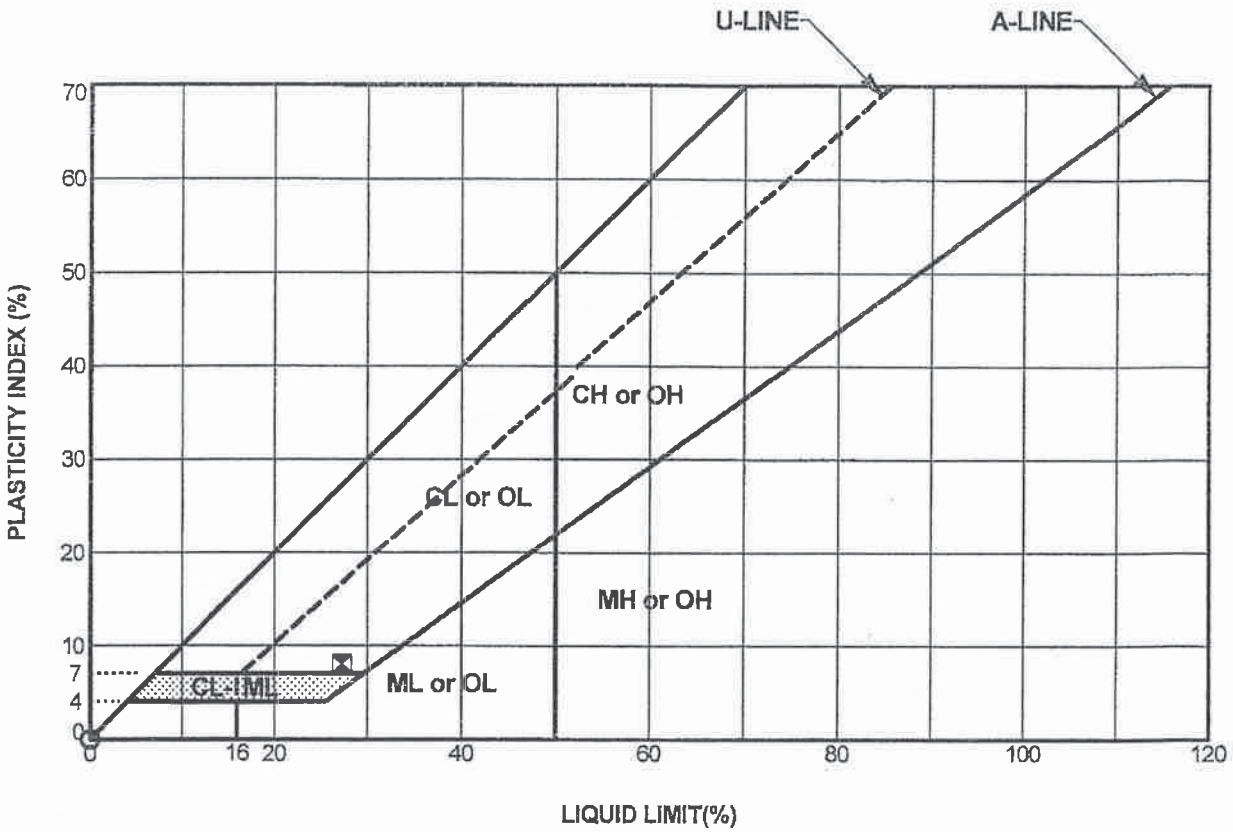


Boring No. H-1	**Sample No. B-1**	**Depth: 2.5 ft**
Sample Description: Yellowish Brown Silty SAND		
Liquid Limit:	**Plasticity Index:**	**Percent Passing No. 200 Sieve:** 27
Comments: 1557A		

COMPACTION TEST RESULTS

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.



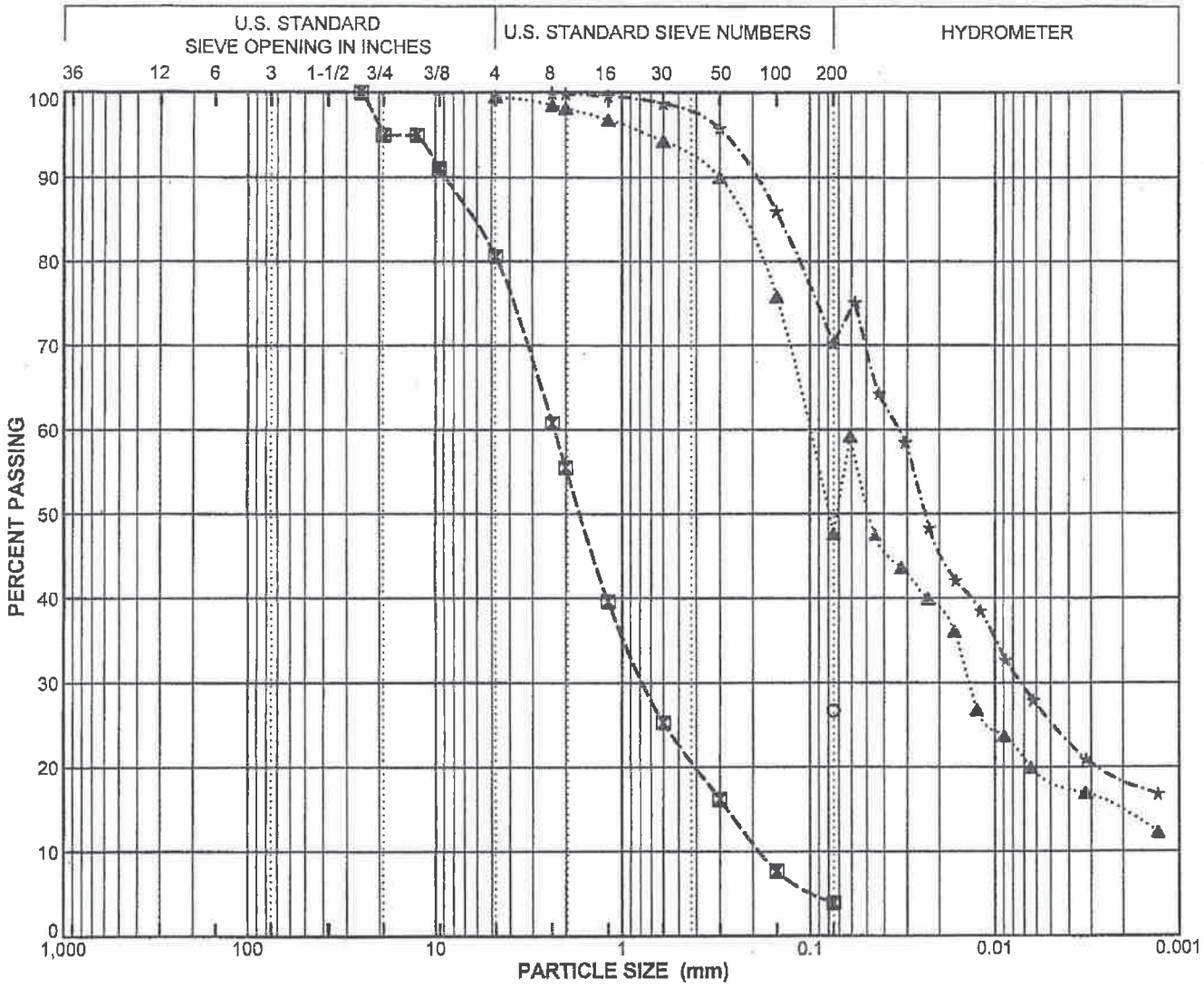
Symbol	Boring Number	Depth (feet)	Sample Number	Passing No. 200 Sieve (%)	LL	PI	USCS	Description
O	H-12	2.5	B-1	48	NP	NP	SM	Yellowish Brown Silty SAND
⊠	H-3	5.1	B-1	70	27	8	ML	Yellowish Brown Sandy Clayey SILT

PLASTICITY CHART

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.

BOULDERS	COBBLES	GRAVEL		SAND			SILT OR CLAY
		coarse	fine	coarse	medium	fine	



Symbol	Boring Number	Sample Number	Depth (feet)	Field Moisture (%)	LL	PI	Activity PI/-2μ	C_u	C_c	Passing No. 200 Sieve (%)	Passing 2μ (%)	USCS
O	H-1	B-1	2.5							27		SM
⊠	H-1	D-3	7.5	1						4		SP
▲	H-12	B-1	2.5		NP	NP				48	14	SM
★	H-3	B-1	5.1		27	8				70	19	ML

PARTICLE SIZE DISTRIBUTION

Shubin Nadal / Van Nuys
Van Nuys, California
PROJECT NO. 12069-01

NMG Geotechnical, Inc.

Sample	Compacted Moisture (%)	Compacted Dry Density (pcf)	Final Moisture (%)	Volumetric Swell (%)	Expansion Index[1] Value	Expansion Index[1] Method	Expansive Classification[2]	Soluble Sulfate (%)	Sulfate Exposure[3]
H-3, B-1, 5'-10'	9.8	113.1	21.8	2.0	22	B	Low		
H-12, B-1, 0'-5'	9.1	115.2	16.7	0.7	8	B	Very Low		

Test Method:
ASTM D4829

HACH SF-1 (Turbidimetric)

Notes:
1. Expansion Index (EI) method of determination:
   [A] E.I. determined by adjusting water content to achieve a 50 ±1% degree of saturation
   [B] E.I. calculated based on measured saturation within the range of 40% and 60%
2. ASTM D4829 *(Classification of Expansive Soil)*
3. ACI-318 Table 4.3.1 *(Requirement for Concrete Exposed to Sulfate-Containing Solutions)*

Expansion Index and Soluble Sulfate Test Results

(FRM001 Rev.5)

Project No. 12069-01

Project Name: Shubin Nadal / Van Nuys

NMG

R-VALUE TEST DATA CTM 301

Project:	Shubin Nadal/Van Nuys	Project No:	12069-01	Date:	7/18/2012
Boring Trench No:	H-1	Sample No:	B-1	Sample Depth:	0-5'
Field Description		SM			
Lab Description:		Dark Olive Brown Silty SAND (SM)			

Specimen Number	1	2	3	4
Mold Number	1	2	3	
Water Adjustment (g)	+125	+115	+110	
Compactor Pressure (psi)	350	350	350	
Exudation Pressure (psi)	192	365	672	
Gross Weight (g)	3196.5	3223.8	3212.8	
Mold Tare (g)	2116.5	2128.5	2113.7	
Wet Weight (g)	1080	1095.3	1099.1	
Sample Height (in)	2.49	2.51	2.52	
Initial Dial Reading	0.0615	0.0991	0.0424	
Final Dial Reading	0.0619	0.0996	0.0431	
Expansion (in x10^{-4})	4	5	7	
Stability(psi) at 2,000 lbs (160 psi)	22 38	22 36	18 28	
Turns Displacement	3.81	3.6	4	
R-Value Uncorrected	68	71	75	
R-Value Corrected	68	71	75	
Moisture Content (%)	12.6	11.7	11.1	
Dry Density (pcf)	116.7	118.3	118.9	
Assumed Traffic Index	4.0	4.0	4.0	
G.E. by Stability	0.33	0.30	0.26	
G.E. by Expansion	0.13	0.17	0.23	
Gf	1.25			

Moisture Content				
Dish No.	D	UX	HHH	
Weight of Moist Soil and Dish (g)	288.3	278	263.8	
Weight of Dry Soil and Dish (g)	261.7	254.1	242.4	
Water Loss (g)	26.6	23.9	21.4	
Weight of Dish (g)	50.3	50.2	50.3	
Dry Soil (g)	211.4	203.9	192.1	
Moisture Content (%)	12.6	11.7	11.1	

R-Value by Exudation = 70

R-Value by Expansion = 77

R-Value at Equilibrium = 70 by Exudation

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301

Remarks:

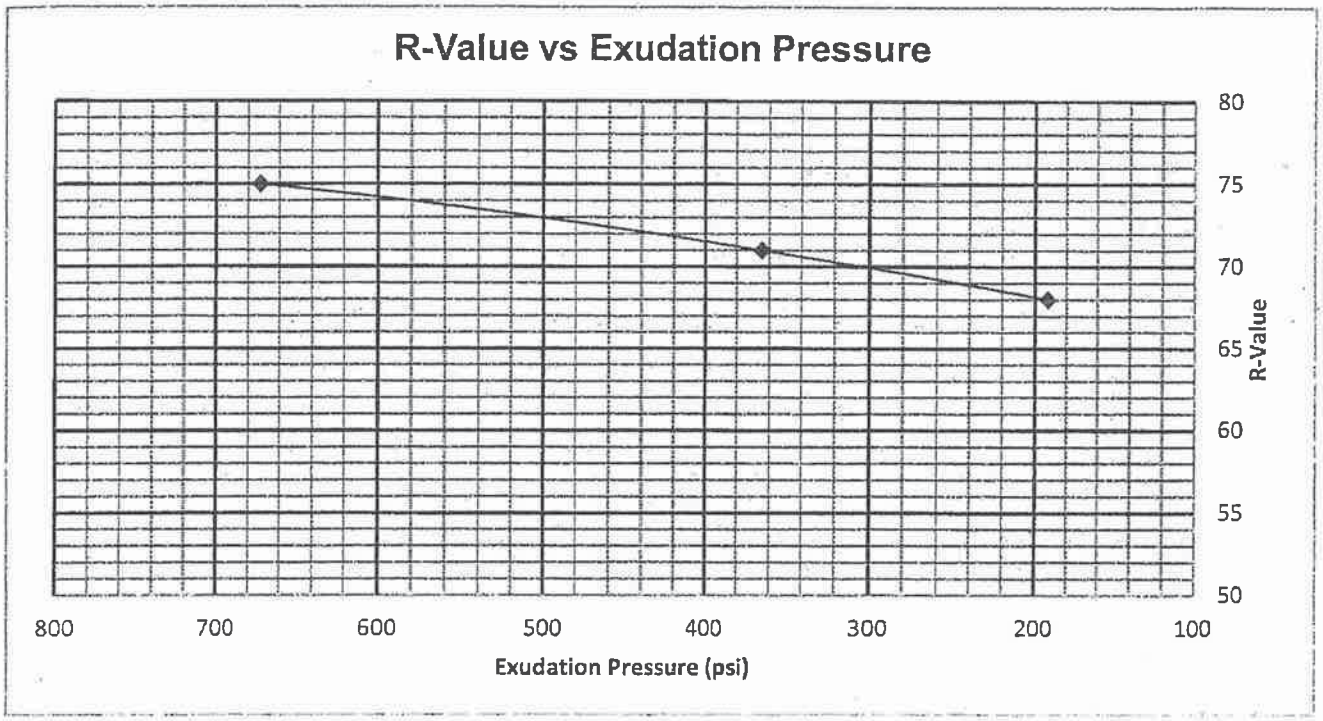
Set up by: Run by: GEH

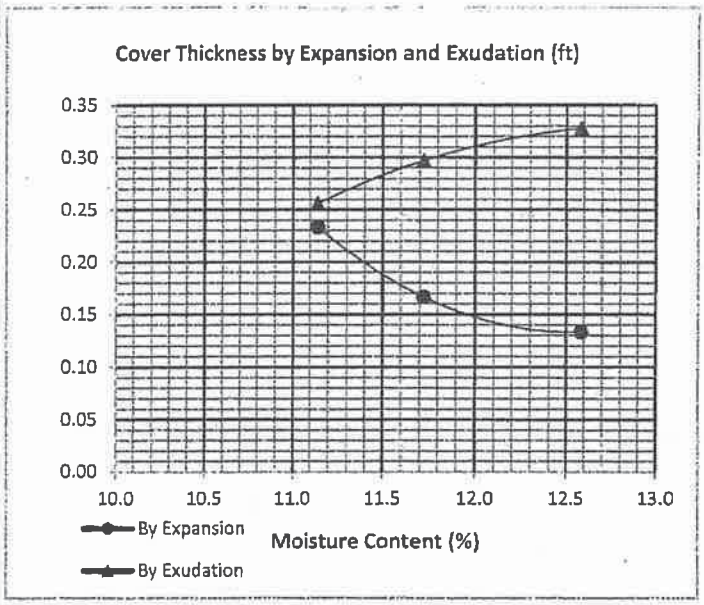
Calculated by: Checked by: Date Completed: 7/18/2012

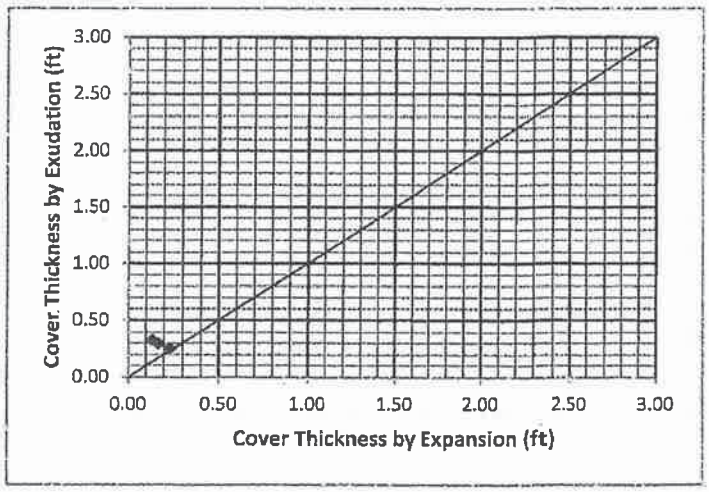
NMG Geotechnical, Inc.

R-VALUE GRAPHICAL PRESENTATION

Project:	Shubin Nadal/Van Nuys	Project No:	12069-01	Date:	7/18/2012
Boring Trench No:	H-1	Sample No:	B-1	Sample Depth:	0-5'
Field Description:	SM				
Lab Description:	Dark Olive Brown Silty SAND (SM)				







Cover Thickness (ft) = 0.24

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301

Remarks:			
Set up by:	Run by: GEH		
Calculated by:	Checked by:	Date Completed:	7/18/2012

NMG Geotechnical, Inc.

R-VALUE TEST DATA CTM 301

Project:	Shubin/ Nadal/ Van Nuys	Project No:	12069-01	Date:	7/20/2012
Boring Trench No:	H-12	Sample No:	B-1	Sample Depth:	0-5'
Field Description:	SM-ML				
Lab Description:	Dark olive brown silty SAND (SM)				

Specimen Number	1	2	3	4
Mold Number	1	2	3	
Water Adjustment (g)	+85	+75	+60	
Compactor Pressure (psi)	300	350	350	
Exudation Pressure (psi)	131	208	547	
Gross Weight (g)	3274.3	3249.1	3220.4	
Mold Tare (g)	2116.3	2128.4	2113.5	
Wet Weight (g)	1158	1120.7	1106.9	
Sample Height (in)	2.46	2.49	2.48	
Initial Dial Reading	0.0618	0.0989	0.0428	
Final Dial Reading	0.062	0.1002	0.0447	
Expansion (in $x10^{-4}$)	2	13	19	
Stability(psi) at 2,000 lbs (160 psi)	41 | 76	28 | 46	21 | 34	|
Turns Displacement	5.27	4.22	3.86	
R-Value Uncorrected	34	59	71	
R-Value Corrected	34	59	71	
Moisture Content (%)	12.5	11.6	10.3	
Dry Density (pcf)	126.8	122.2	122.6	
Assumed Traffic Index	4.0	4.0	4.0	
G.E. by Stability	0.68	0.42	0.30	
G.E. by Expansion	0.07	0.43	0.63	
Gf	1.25			

Moisture Content				
Dish No.	D	UX	WW	
Weight of Moist Soil and Dish (g)	289.1	251.3	243.3	
Weight of Dry Soil and Dish (g)	262.6	230.4	225.2	
Water Loss (g)	26.5	20.9	18.1	
Weight of Dish (g)	50.3	50.2	49.5	
Dry Soil (g)	212.3	180.2	175.7	
Moisture Content (%)	12.5	11.6	10.3	

R-Value by Exudation = 64

R-Value by Expansion = 60

R-Value at Equilibrium = 60 by Expansion

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301

Remarks:

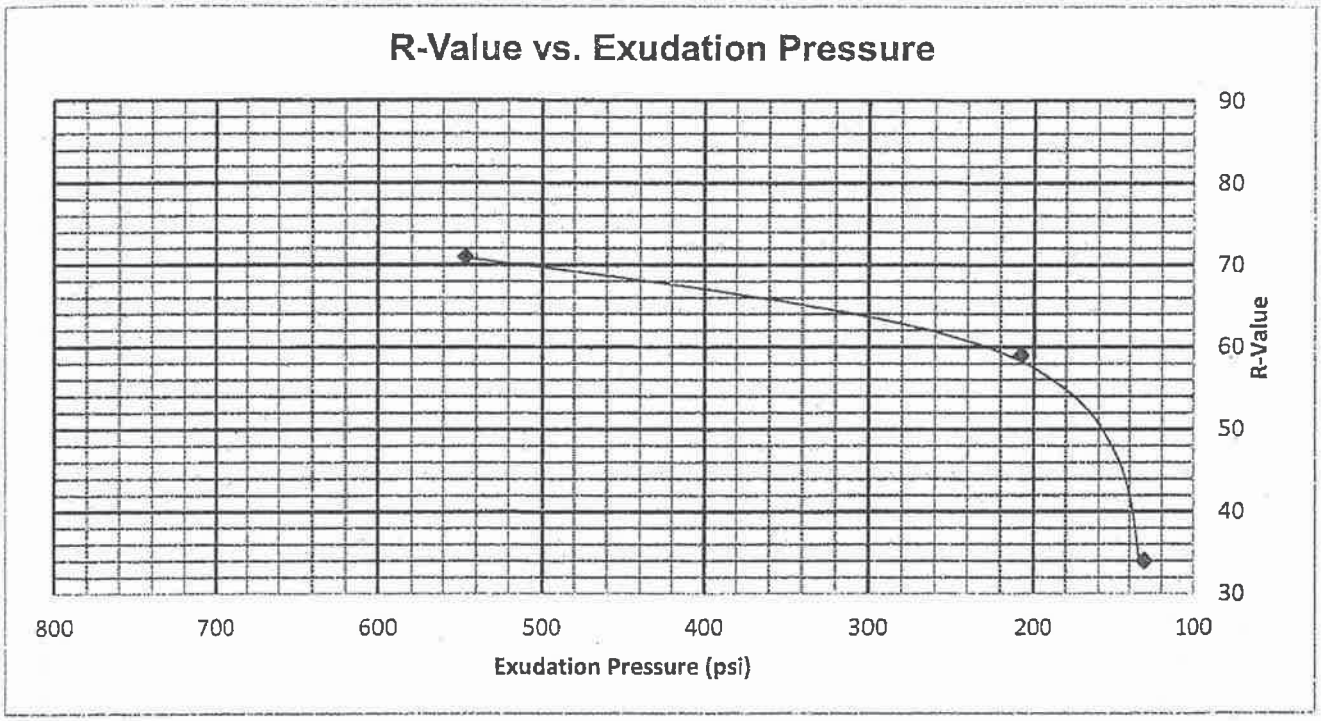
Set up by: Run by: GEH/ MPD

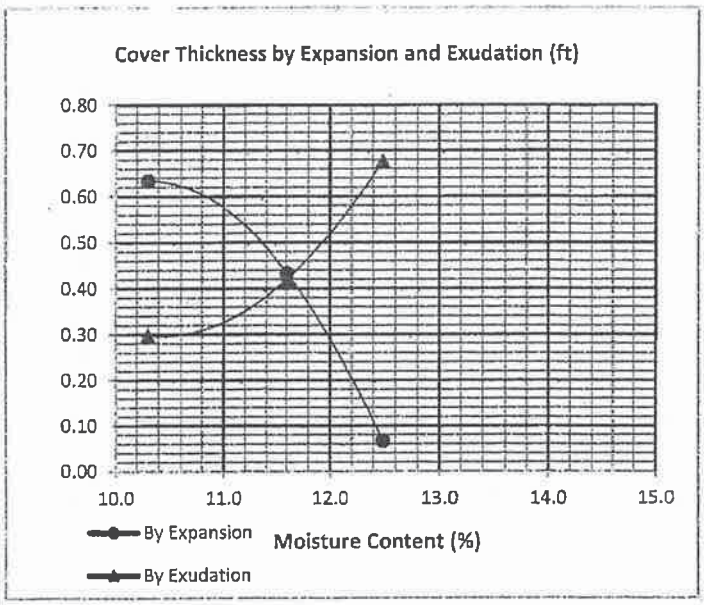
Calculated by: Checked by: Date Completed: 7/20/2012

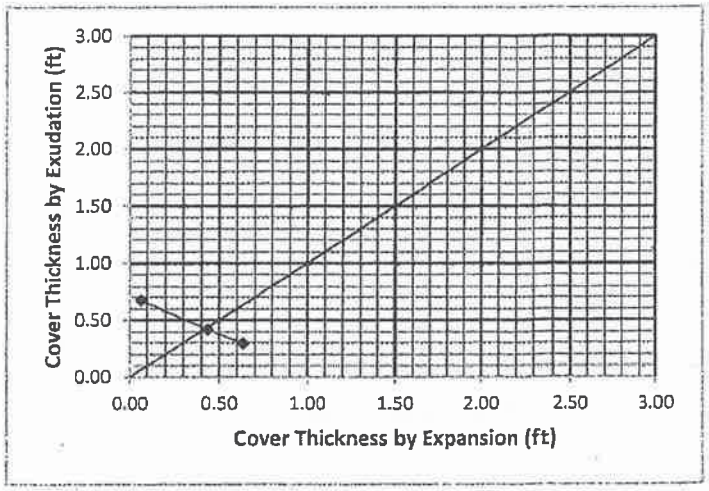
NMG Geotechnical, Inc.

R-VALUE GRAPHICAL PRESENTATION

Project:	Shubin/ Nadal/ Van Nuys	Project No:	12069-01	Date:	7/20/2012
Boring Trench No:	H-12	Sample No:	B-1	Sample Depth:	0-5'
Field Description:	SM-ML				
Lab Description:	Dark olive brown silty SAND (SM)				







Cover Thickness (ft) = 0.41

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301

Remarks:

Set up by: Run by: GEH/ MPD

Calculated by: Checked by: Date Completed: 7/20/2012

NMG Geotechnical, Inc.

HDR | SCHIFF

www.hdrinc.com
Corrosion Control and Condition Assessment (C3A) Department

July 25, 2012 via email: TMiyake@nmggeotechnical.com

NMG GEOTECHNICAL, INC.
17991 Fitch
Irvine, CA 92714

Attention: Mr. Ted Miyake, P.E., G.E.

Re: Soil Corrosivity Study
Shubin Nadal/Van Nuys
Van Nuys, California
HDR|Schiff #12-0612SCS, HDR #188782
NMG #12069-01

INTRODUCTION

Laboratory tests have been completed on two soil samples provided for the Shubin Nadal/Van Nuys project. The purpose of these tests was to determine if the soils might have deleterious effects on underground utility piping and concrete structures. HDR Engineering, Inc. (HDR|Schiff) assumes that the samples provided are representative of the most corrosive soils at the site.

The proposed construction consists of an office-industrial building. The site is located at 7600 Tyrone Avenue in Van Nuys, California. The water table is reportedly not encountered during boring explorations 32 feet deep.

The scope of this study is limited to a determination of soil corrosivity and general corrosion control recommendations for materials likely to be used for construction. Our recommendations do not constitute, and are not meant as a substitute for, design documents for the purpose of construction. If the architects and/or engineers desire more specific information, designs, specifications, or review of design, HDR|Schiff will be happy to work with them as a separate phase of this project.

LABORATORY SOIL CORROSIVITY TESTS

The electrical resistivity of each sample was measured in a soil box per ASTM G187 in its as-received condition and again after saturation with distilled water. Resistivities are at about their lowest value when the soil is saturated. The pH of the saturated samples was measured per CTM 643. A 5:1 water:soil extract from each sample was chemically analyzed for the major soluble salts commonly found in soil per ASTM D4327 and D6919. Test results are shown in Table 1.

SOIL CORROSIVITY

A major factor in determining soil corrosivity is electrical resistivity. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from the metal into the soil. Corrosion currents, following Ohm's Law, are inversely proportional to soil resistivity. Lower electrical resistivities result from higher moisture and soluble salt contents and indicate corrosive soil.

A correlation between electrical resistivity and corrosivity toward ferrous metals is:[1]

Soil Resistivity in ohm-centimeters	Corrosivity Category
Greater than 10,000	Mildly Corrosive
2,000 to 10,000	Moderately Corrosive
1,000 to 2,000	Corrosive
0 to 1,000	Severely Corrosive

Other soil characteristics that may influence corrosivity towards metals are pH, soluble salt content, soil types, aeration, anaerobic conditions, and site drainage.

Electrical resistivities were in the mildly and moderately corrosive categories with as-received moisture. When saturated, the resistivities were in the moderately corrosive and corrosive categories. The resistivities dropped considerably with added moisture because the samples were dry as-received.

Soil pH values varied from 7.6 to 7.8. This range is mildly alkaline.[2] These values do not particularly increase soil corrosivity.

The soluble salt content of the samples was low.

The nitrate concentration was high enough to be aggressive to copper.

Tests were not made for sulfide and negative oxidation-reduction (redox) potential because these samples did not exhibit characteristics typically associated with anaerobic conditions.

This soil is classified as corrosive to ferrous metals and aggressive to copper.

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[1] *Romanoff, Melvin. Underground Corrosion, NBS Circular 579. Reprinted by NACE. Houston, TX, 1989, pp. 166–167.*

[2] *Romanoff, Melvin. Underground Corrosion, NBS Circular 579. Reprinted by NACE. Houston, TX, 1989, p. 8.*

CORROSION CONTROL RECOMMENDATIONS

The life of buried materials depends on thickness, strength, loads, construction details, soil moisture, etc., in addition to soil corrosivity, and is, therefore, difficult to predict. Of more practical value are corrosion control methods that will increase the life of materials that would be subject to significant corrosion.

The following recommendations are based on the soil conditions discussed in the Soil Corrosivity section above. Unless otherwise indicated, these recommendations apply to the entire site or alignment.

Steel Pipe

Implement *all* the following measures:

1. Underground steel pipe with rubber gasketed, mechanical, grooved end, or other nonconductive type joints should be bonded for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.
2. Install corrosion monitoring test stations to facilitate corrosion monitoring and the application of cathodic protection:
    a. At each end of the pipeline.
    b. At each end of all casings.
    c. Other locations as necessary so the interval between test stations does not exceed 1,200 feet.
3. To prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection, electrically isolate each buried steel pipeline per NACE Standard SP0286 from:
    a. Dissimilar metals.
    b. Dissimilarly coated piping (cement-mortar vs. dielectric).
    c. Above ground steel pipe.
    d. All existing piping.
4. Choose one of the following corrosion control options:

OPTION 1

a. Apply a suitable dielectric coating intended for underground use such as:
    i. Polyurethane per AWWA C222 *or*
    ii. Extruded polyethylene per AWWA C215 *or*
    iii. A tape coating system per AWWA C214 *or*
    iv. Hot applied coal tar enamel per AWWA C203 *or*
    v. Fusion bonded epoxy per AWWA C213.

b. Apply cathodic protection to steel piping as per NACE Standard SP0169.

OPTION 2

a. As an alternative to dielectric coating and cathodic protection, apply a ¾-inch cement mortar coating per AWWA C205 or encase in concrete 3 inches thick, using any type of cement. Joint bonds, test stations, and insulated joints are still required for these alternatives.

NOTE: Some steel piping systems, such as for oil, gas, and high-pressure piping systems, have special corrosion and cathodic protection requirements that must be evaluated for each specific application.

Iron Pipe

Implement *all* the following measures:

1. Electrically insulate underground iron pipe from dissimilar metals and from above ground iron pipe with insulating joints per NACE Standard SP0286.
2. Bond all nonconductive type joints for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.
3. Install corrosion monitoring test stations to facilitate corrosion monitoring and the application of cathodic protection:
   a. At each end of the pipeline.
   b. At each end of any casings.
   c. Other locations as necessary so the interval between test stations does not exceed 1,200 feet.
4. Choose one of the following corrosion control options:

   OPTION 1

   a. Apply a suitable coating intended for underground use such as:
      i. Polyethylene encasement per AWWA C105; *or*
      ii. Epoxy coating; *or*
      iii. Polyurethane; *or*
      iv. Wax tape.

      NOTE: The thin factory-applied asphaltic coating applied to ductile iron pipe for transportation and aesthetic purposes does not constitute a corrosion control coating.
   b. Apply cathodic protection to cast and ductile iron piping as per NACE Standard SP0169.

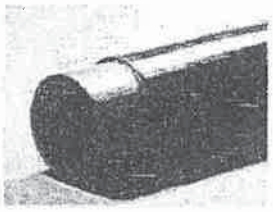
   OPTION 2

   a. As an alternative to coating systems described in Option 1 and cathodic protection, concrete encase all buried portions of metallic piping so that there is a minimum of 3 inches of concrete cover provided over and around surfaces of pipe, fittings, and valves using any type of cement.

Copper Tubing

Protect buried copper tubing by *one* of the following measures:

1. Prevention of soil contact. Soil contact may be prevented by placing the tubing above ground or encasing the tubing using PVC pipe with solvent-welded joints.
2. Installation of a factory-coated copper pipe with a minimum 25-mil thickness such as Kamco's Aqua Shield™, Mueller's Streamline Protec™, or equal. The coating must be continuous with no cuts or defects.
3. Installation of 12-mil polyethylene pipe wrapping tape with butyl rubber mastic over a suitable primer. Protect wrapped copper tubing by applying cathodic protection per NACE Standard SP0169.



Plastic and Vitrified Clay Pipe

1. No special precautions are required for plastic and vitrified clay piping placed underground from a corrosion viewpoint.
2. Protect all metallic fittings and valves with wax tape per AWWA C217 or epoxy.

All Pipe

1. On all pipes, appurtenances, and fittings not protected by cathodic protection, coat bare metal such as valves, bolts, flange joints, joint harnesses, and flexible couplings with wax tape per AWWA C217 after assembly.
2. Where metallic pipelines penetrate concrete structures such as building floors, vault walls, and thrust blocks use plastic sleeves, rubber seals, or other dielectric material to prevent pipe contact with the concrete and reinforcing steel.

Concrete

1. From a corrosion standpoint, any type of cement may be used for concrete structures and pipe because the sulfate concentration is negligible, 0 to 0.1 percent.[3,4,5]
2. Standard concrete cover over reinforcing steel may be used for concrete structures and pipe in contact with these soils due to the low chloride concentration[6] found onsite.

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[3] *2009 International Building Code (IBC) which refers to American Concrete Institute (ACI-318) Table 4.3.1*

[4] *2009 International Residential Code (IRC) which refers to American Concrete Institute (ACI-318) Table 4.3.1*

[5] *2010 California Building Code (CBC) which refers to American Concrete Institute (ACI-318) Table 4.3.1*

[6] *Design Manual 303: Concrete Cylinder Pipe. Ameron. p.65*

Table 1 - Laboratory Tests on Soil Samples

NMG Geotechnical, Inc.
Shubin Nadal / Van Nuys
Your #12069-01, HDR|Schiff #12-0612SCS
12-Jul-12

Sample ID			H-3 B-1 @ 5-10' SM/ML	H-12 B-1 @ 0-5' SM/ML
Resistivity		**Units**		
as-received		ohm-cm	4,400	33,200
saturated		ohm-cm	1,760	9,600
pH			7.6	7.8
Electrical Conductivity		mS/cm	0.19	0.05
Chemical Analyses				
Cations				
calcium	Ca^{2+}	mg/kg	78	36
magnesium	Mg^{2+}	mg/kg	11	4.8
sodium	Na^{1+}	mg/kg	119	7.2
potassium	K^{1+}	mg/kg	6.5	19
Anions				
carbonate	CO_3^{2-}	mg/kg	ND	ND
bicarbonate	HCO_3^{1-}	mg/kg	241	107
fluoride	F^{1-}	mg/kg	3.0	4.1
chloride	Cl^{1-}	mg/kg	3.7	0.6
sulfate	SO_4^{2-}	mg/kg	91	7.7
phosphate	PO_4^{3-}	mg/kg	2.2	8.2
Other Tests				
ammonium	NH_4^{1+}	mg/kg	ND	ND
nitrate	NO_3^{1-}	mg/kg	148	5.5
sulfide	S^{2-}	qual	na	na
Redox		mV	na	na

Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

CLOSURE

Our services have been performed with the usual thoroughness and competence of the engineering profession. No other warranty or representation, either expressed or implied, is included or intended.

Please call if you have any questions.

Respectfully Submitted,
HDR Engineering, Inc.

Leobardo Solis

Steven R. Fox, P.E.

Enc: Table 1

12-0612SCS_Rpt_IB-rev00_LS

APPENDIX D

Falling Head Percolation Data Sheet – Field Copy

Project: Shubin Nadal / Van Nuys		Job No. 12069-01
Test Hole No. H-3	Tested by: CD	Date: 6-27-12
Depth of Hole as Drilled: 12.5'	Before Test: 9'	After Test: 8.4'

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Ft)	Initial Water Level (Ft)	Final Water Level (Ft)	▲In Water Level (Ft)	Comments
1	8:00 / 8:30	30	9.0	3.10	4.38	1.28	
2	8:30 / 9:00	30	9.0	3.07	4.23	1.16	
3	9:00 / 9:30	30	9.0	2.82	4.09	1.27	
4	9:30 / 10:00	30	8.7	2.90	4.08	1.18	
5	10:00 / 10:30	30	8.7	2.84	4.03	1.19	
6	10:30 / 11:00	30	8.4	3.58	4.44	0.86	
7	11:00 / 11:30	30	8.4	3.41	4.32	0.91	
8	11:30 / 12:00	30	8.4	3.14	4.19	1.05	
9	12:00 / 12:30	30	8.4	3.72	4.54	0.82	
10	12:30 / 1:00	30	8.4	3.26	4.17	0.91	
11	1:00 / 1:30	30	8.4	3.16	4.12	0.96	
12	1:30 / 2:00	30	8.4	3.36	4.36	1.00	

Falling Head Percolation Data Sheet – Field Copy

Project: Shubin Nadal / Van Nuys	Job No. 12069-01	
Test Hole No. H-6	Tested by: CD	Test Hole No. H-3
Depth of Hole as Drilled: 7.5'	Before Test: 4'	After Test: 3.5'

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Ft)	Initial Water Level (Ft)	Final Water Level (Ft)	▲In Water Level (Ft)	Comments
1	8:20 / 8:50	30	4.0	1.67	1.98	0.31	
2	8:50 / 9:20	30	4.0	1.78	2.02	0.26	
3	9:20 / 9:50	30	4.0	1.91	2.15	0.24	
4	9:50 / 10:20	30	3.9	1.88	2.13	0.25	
5	10:20 / 10:50	30	3.7	2.01	2.20	0.19	
6	10:50 / 11:20	30	3.5	2.04	2.24	0.20	
7	11:20 / 11:50	30	3.5	1.84	2.03	0.19	
8	11:50 / 12:20	30	3.5	1.64	1.86	0.22	
9	12:20 / 12:50	30	3.5	1.76	2.01	0.25	
10	12:50 / 1:20	30	3.5	1.93	2.12	0.19	
11	1:20 / 1:50	30	3.5	1.74	1.95	0.21	
12	1:50 / 2:20	30	3.5	1.86	2.06	0.20	

APPENDIX E

Project Name = USGS 2011, Seismic Design Parameters- 7600 Tyrone Ave, Van Nuys, California
Conterminous 48 States
2005 ASCE 7 Standard
Latitude = 34.2094
Longitude = -118.4423
Spectral Response Accelerations Ss and S1
Ss and S1 = Mapped Spectral Acceleration Values
Site Class B - Fa = 1.0 ,Fv = 1.0
Data are based on a 0.01 deg grid spacing

Period (sec)	Sa (g)
0.2	1.754 (Ss, Site Class B)
1.0	0.612 (S1, Site Class B)

Conterminous 48 States
2005 ASCE 7 Standard
Latitude = 34.2094
Longitude = -118.4423
Spectral Response Accelerations SMs and SM1
SMs = Fa x Ss and SM1 = Fv x S1
Site Class D - Fa = 1.0 ,Fv = 1.5

Period (sec)	Sa (g)
0.2	1.754 (SMs, Site Class D)
1.0	0.918 (SM1, Site Class D)

Conterminous 48 States
2005 ASCE 7 Standard
Latitude = 34.2094
Longitude = -118.4423
Design Spectral Response Accelerations SDs and SD1
SDs = 2/3 x SMs and SD1 = 2/3 x SM1
Site Class D - Fa = 1.0 ,Fv = 1.5

Period (sec)	Sa (g)
0.2	1.169 (SDs, Site Class D)
1.0	0.612 (SD1, Site Class D)

```
*** Deaggregation of Seismic Hazard at One Period of Spectral Accel. ***
*** Data from U.S.G.S. National Seismic Hazards Mapping Project, 2008 version ***
PSHA Deaggregation. %contributions. site: Van_Nuys long: 118.442 W., lat: 34.209 N.
 Vs30(m/s)= 760.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08  See USGS OFR 2008-1128. dM=0.2 below
Return period: 2475  yrs. Exceedance PGA =0.7716   g. Weight * Computed_Rate_Ex
0.404E-03
#Pr[at least one eq with median motion>=PGA in 50 yrs]=0.00023
#This deaggregation corresponds to Mean Hazard w/all GMPEs
```

DIST(KM)	MAG(MW)	ALL_EPS	EPSILON>2	1<EPS<2	0<EPS<1	-1<EPS<0	-2<EPS<-1	EPS<-2
7.0	5.05	0.334	0.329	0.005	0.000	0.000	0.000	0.000
7.0	5.20	0.771	0.665	0.106	0.000	0.000	0.000	0.000
7.0	5.40	0.887	0.633	0.254	0.000	0.000	0.000	0.000
12.4	5.41	0.059	0.059	0.000	0.000	0.000	0.000	0.000
7.0	5.60	0.923	0.594	0.329	0.000	0.000	0.000	0.000
12.7	5.60	0.097	0.097	0.000	0.000	0.000	0.000	0.000
7.0	5.80	0.872	0.479	0.394	0.000	0.000	0.000	0.000
12.9	5.80	0.132	0.132	0.000	0.000	0.000	0.000	0.000
6.9	6.01	1.162	0.526	0.636	0.000	0.000	0.000	0.000
12.8	6.01	0.183	0.183	0.000	0.000	0.000	0.000	0.000
7.3	6.21	1.828	0.828	0.975	0.025	0.000	0.000	0.000
13.8	6.23	0.235	0.231	0.003	0.000	0.000	0.000	0.000
8.3	6.44	3.629	2.130	1.409	0.090	0.000	0.000	0.000
13.7	6.48	3.027	1.881	0.931	0.215	0.000	0.000	0.000
7.4	6.61	5.251	2.256	2.841	0.154	0.000	0.000	0.000
13.6	6.61	20.569	7.644	10.013	2.912	0.000	0.000	0.000
6.7	6.77	3.527	1.513	1.869	0.144	0.000	0.000	0.000
13.3	6.77	24.494	6.218	13.672	4.604	0.000	0.000	0.000
22.1	6.78	0.085	0.085	0.000	0.000	0.000	0.000	0.000
6.9	6.97	2.179	0.770	1.294	0.115	0.000	0.000	0.000
13.4	6.95	11.569	2.722	6.077	2.761	0.009	0.000	0.000
21.5	6.99	0.180	0.168	0.012	0.000	0.000	0.000	0.000
31.6	7.06	0.055	0.055	0.000	0.000	0.000	0.000	0.000
9.3	7.19	1.344	0.560	0.720	0.065	0.000	0.000	0.000
13.4	7.20	6.938	2.027	3.323	1.581	0.008	0.000	0.000
21.9	7.15	0.188	0.152	0.037	0.000	0.000	0.000	0.000
31.4	7.18	0.172	0.172	0.000	0.000	0.000	0.000	0.000
9.4	7.34	1.464	0.553	0.814	0.097	0.000	0.000	0.000
12.6	7.36	5.699	1.147	3.157	1.360	0.035	0.000	0.000
28.4	7.35	0.121	0.117	0.004	0.000	0.000	0.000	0.000
31.7	7.34	0.083	0.083	0.000	0.000	0.000	0.000	0.000
9.4	7.51	0.111	0.037	0.063	0.010	0.000	0.000	0.000
12.8	7.52	1.295	0.281	0.641	0.361	0.011	0.000	0.000
29.0	7.60	0.082	0.082	0.000	0.000	0.000	0.000	0.000
28.6	7.78	0.060	0.058	0.002	0.000	0.000	0.000	0.000
47.0	7.77	0.069	0.069	0.000	0.000	0.000	0.000	0.000
47.1	7.98	0.161	0.161	0.000	0.000	0.000	0.000	0.000

```
Summary statistics for above PSHA PGA  deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%):  100.0
 Mean src-site R=   12.2 km; M= 6.75; eps0=   1.23. Mean calculated for all sources.
```

Modal src-site R= 13.3 km; M= 6.77; eps0= 1.05 from peak (R,M) bin
MODE R*= 13.3km; M*= 6.76; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 13.672

Principal sources (faults, subduction, random seismicity having > 3% contribution)

Source Category:	% contr.	R(km)	M	epsilon0 (mean values).
California B-faults Char	62.85	12.6	6.90	1.13
California B-faults GR	26.07	12.7	6.70	1.34
CA Compr. crustal gridded	10.80	7.4	6.01	1.49

Individual fault hazard details if its contribution to mean hazard > 2%:

Fault ID	% contr.	Rcd(km)	M	epsilon0	Site-to-src azimuth (d)
Hollywood Char	2.10	13.1	6.61	2.04	151.8
Verdugo Char	4.26	5.8	6.78	1.36	41.8
Sierra Madre (San Fernando) Char	2.88	9.4	6.60	1.93	-11.0
Northridge Char	32.43	13.3	6.78	0.81	26.0
Santa Susana, alt 1 Char	2.58	13.0	6.81	2.19	-34.9
Santa Monica Connected alt 1 Cha	5.97	12.3	7.31	0.70	172.3
Santa Monica Connected alt 2 Cha	3.93	11.7	7.35	0.86	150.5
Sierra Madre Connected Char	3.11	9.4	7.26	1.39	-11.0
Verdugo GR	2.81	7.5	6.65	1.41	48.5
Northridge GR	14.60	13.6	6.67	1.06	-29.7

#**********End of deaggregation corresponding to Mean Hazard w/all GMPEs **********#

PSHA Deaggregation. %contributions. site: Van_Nuys long: 118.442 W., lat: 34.209 N.
Vs30(m/s)= 760.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 See USGS OFR 2008-1128. dM=0.2 below
Return period: 2475 yrs. Exceedance PGA =0.7716 g. Weight * Computed_Rate_Ex 0.143E-03
#Pr[at least one eq with median motion>=PGA in 50 yrs]=0.00020
#This deaggregation corresponds to Boore-Atkinson 2008

DIST(KM)	MAG(MW)	ALL_EPS	EPSILON>2	1<EPS<2	0<EPS<1	-1<EPS<0	-2<EPS<-1	EPS<-2
7.0	5.41	0.019	0.019	0.000	0.000	0.000	0.000	0.000
7.0	5.61	0.035	0.035	0.000	0.000	0.000	0.000	0.000
7.0	5.80	0.055	0.055	0.000	0.000	0.000	0.000	0.000
6.3	6.02	0.125	0.122	0.004	0.000	0.000	0.000	0.000
6.6	6.21	0.223	0.207	0.016	0.000	0.000	0.000	0.000
13.7	6.26	0.021	0.021	0.000	0.000	0.000	0.000	0.000
8.1	6.44	0.473	0.442	0.031	0.000	0.000	0.000	0.000
13.4	6.48	1.035	0.431	0.412	0.191	0.000	0.000	0.000
7.4	6.59	0.611	0.522	0.089	0.000	0.000	0.000	0.000
13.4	6.62	8.974	2.181	4.245	2.548	0.000	0.000	0.000
22.2	6.58	0.020	0.020	0.000	0.000	0.000	0.000	0.000
6.8	6.75	0.829	0.531	0.298	0.000	0.000	0.000	0.000
13.3	6.76	10.987	1.892	5.652	3.443	0.000	0.000	0.000
22.3	6.77	0.051	0.051	0.000	0.000	0.000	0.000	0.000
7.0	6.97	0.458	0.243	0.214	0.001	0.000	0.000	0.000
13.3	6.94	5.594	0.951	2.623	2.011	0.009	0.000	0.000
22.5	6.99	0.076	0.075	0.000	0.000	0.000	0.000	0.000
31.0	7.08	0.060	0.060	0.000	0.000	0.000	0.000	0.000
9.2	7.19	0.351	0.195	0.155	0.001	0.000	0.000	0.000
13.7	7.18	2.018	0.712	0.950	0.347	0.008	0.000	0.000
23.7	7.17	0.062	0.060	0.003	0.000	0.000	0.000	0.000

32.1	7.20	0.073	0.073	0.000	0.000	0.000	0.000	0.000
9.4	7.34	0.379	0.185	0.193	0.000	0.000	0.000	0.000
12.9	7.35	1.847	0.438	1.077	0.332	0.000	0.000	0.000
28.9	7.35	0.073	0.073	0.000	0.000	0.000	0.000	0.000
32.1	7.34	0.048	0.048	0.000	0.000	0.000	0.000	0.000
9.4	7.51	0.029	0.012	0.017	0.000	0.000	0.000	0.000
13.7	7.52	0.372	0.117	0.202	0.053	0.000	0.000	0.000
28.9	7.59	0.051	0.051	0.000	0.000	0.000	0.000	0.000
47.0	7.57	0.018	0.018	0.000	0.000	0.000	0.000	0.000
28.6	7.78	0.046	0.044	0.002	0.000	0.000	0.000	0.000
47.0	7.77	0.069	0.069	0.000	0.000	0.000	0.000	0.000
47.1	7.98	0.141	0.141	0.000	0.000	0.000	0.000	0.000
47.1	8.20	0.018	0.018	0.000	0.000	0.000	0.000	0.000

Summary statistics for above PSHA PGA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%): 35.3
Mean src-site R= 13.2 km; M= 6.82; eps0= 1.02. Mean calculated for all sources.
Modal src-site R= 13.3 km; M= 6.76; eps0= 0.81 from peak (R,M) bin
MODE R*= 13.3km; M*= 6.76; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 5.652

Principal sources (faults, subduction, random seismicity having > 3% contribution)

Source Category:	% contr.	R(km)	M	epsilon0 (mean values).
California B-faults Char	25.58	13.2	6.87	0.94
California B-faults GR	8.53	13.1	6.71	1.11

Individual fault hazard details if its contribution to mean hazard > 2%:

Fault ID	% contr.	Rcd(km)	M	epsilon0	Site-to-src azimuth (d)
Hollywood Char	0.79	13.1	6.62	2.00	151.8
Verdugo Char	0.84	5.8	6.80	1.64	41.8
Sierra Madre (San Fernando) Char	0.54	9.4	6.63	2.14	-11.0
Northridge Char	17.07	13.3	6.78	0.60	26.0
Santa Susana, alt 1 Char	0.77	13.0	6.82	2.24	-34.9
Santa Monica Connected alt 1 Cha	1.93	12.3	7.30	0.84	172.3
Santa Monica Connected alt 2 Cha	0.84	11.7	7.35	1.18	150.5
Sierra Madre Connected Char	0.80	9.4	7.26	1.56	-11.0
Verdugo GR	0.30	6.9	6.68	1.87	48.5
Northridge GR	6.38	13.5	6.68	0.84	-29.7

#*********End of deaggregation corresponding to Boore-Atkinson 2008 *********#

PSHA Deaggregation. %contributions. site: Van_Nuys long: 118.442 W., lat: 34.209 N.
Vs30(m/s)= 760.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 See USGS OFR 2008-1128. dM=0.2 below
Return period: 2475 yrs. Exceedance PGA =0.7716 g. Weight * Computed_Rate_Ex 0.850E-04
#Pr[at least one eq with median motion>=PGA in 50 yrs]=0.00000
#This deaggregation corresponds to Campbell-Bozorgnia 2008

DIST(KM)	MAG(MW)	ALL_EPS	EPSILON>2	1<EPS<2	0<EPS<1	-1<EPS<0	-2<EPS<-1	EPS<-2
7.0	5.05	0.042	0.042	0.000	0.000	0.000	0.000	0.000
7.0	5.21	0.147	0.147	0.000	0.000	0.000	0.000	0.000
7.0	5.41	0.248	0.248	0.000	0.000	0.000	0.000	0.000
7.0	5.60	0.293	0.269	0.024	0.000	0.000	0.000	0.000
12.3	5.61	0.012	0.012	0.000	0.000	0.000	0.000	0.000

7.0	5.80	0.268	0.222	0.047	0.000	0.000	0.000	0.000
12.5	5.81	0.021	0.021	0.000	0.000	0.000	0.000	0.000
6.8	6.01	0.333	0.277	0.056	0.000	0.000	0.000	0.000
12.5	6.01	0.035	0.035	0.000	0.000	0.000	0.000	0.000
7.2	6.21	0.549	0.446	0.102	0.000	0.000	0.000	0.000
13.8	6.23	0.053	0.053	0.000	0.000	0.000	0.000	0.000
8.0	6.43	1.071	0.772	0.299	0.000	0.000	0.000	0.000
14.3	6.47	0.626	0.510	0.117	0.000	0.000	0.000	0.000
7.3	6.61	2.356	1.060	1.274	0.021	0.000	0.000	0.000
13.6	6.62	5.236	2.908	2.328	0.000	0.000	0.000	0.000
7.0	6.78	0.993	0.451	0.531	0.011	0.000	0.000	0.000
13.5	6.79	2.771	1.463	1.308	0.000	0.000	0.000	0.000
21.3	6.83	0.012	0.012	0.000	0.000	0.000	0.000	0.000
6.6	6.96	0.603	0.247	0.349	0.007	0.000	0.000	0.000
13.5	6.95	1.848	0.813	0.994	0.040	0.000	0.000	0.000
20.9	7.00	0.029	0.028	0.001	0.000	0.000	0.000	0.000
31.3	7.06	0.020	0.020	0.000	0.000	0.000	0.000	0.000
9.0	7.19	0.313	0.168	0.140	0.006	0.000	0.000	0.000
13.1	7.21	1.611	0.520	0.882	0.209	0.000	0.000	0.000
20.9	7.15	0.036	0.031	0.004	0.000	0.000	0.000	0.000
31.3	7.20	0.029	0.029	0.000	0.000	0.000	0.000	0.000
9.4	7.34	0.321	0.171	0.150	0.000	0.000	0.000	0.000
12.7	7.37	0.851	0.294	0.460	0.096	0.000	0.000	0.000
28.1	7.35	0.011	0.011	0.001	0.000	0.000	0.000	0.000
31.2	7.33	0.014	0.014	0.000	0.000	0.000	0.000	0.000
9.4	7.51	0.023	0.012	0.011	0.000	0.000	0.000	0.000
12.3	7.53	0.252	0.066	0.141	0.044	0.000	0.000	0.000

Summary statistics for above PSHA PGA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%): 21.0
Mean src-site R= 11.4 km; M= 6.71; eps0= 1.58. Mean calculated for all sources.
Modal src-site R= 13.6 km; M= 6.62; eps0= 1.71 from peak (R,M) bin
MODE R*= 13.9km; M*= 6.61; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 2.908

Principal sources (faults, subduction, random seismicity having > 3% contribution)

Source Category:	% contr.	R(km)	M	epsilon0 (mean values).
California B-faults Char	11.90	12.2	6.89	1.56
California B-faults GR	5.95	12.1	6.69	1.66
CA Compr. crustal gridded	3.20	7.1	6.09	1.50

Individual fault hazard details if its contribution to mean hazard > 2%:

Fault ID	% contr.	Rcd(km)	M	epsilon0	Site-to-src azimuth (d)
Hollywood Char	0.50	13.1	6.60	2.15	151.8
Verdugo Char	1.38	5.8	6.78	1.41	41.8
Sierra Madre (San Fernando) Char	0.88	9.4	6.59	2.00	-11.0
Northridge Char	4.68	13.3	6.78	1.37	26.0
Santa Susana, alt 1 Char	0.55	13.0	6.80	2.33	-34.9
Santa Monica Connected alt 1 Cha	0.85	12.3	7.31	1.25	172.3
Santa Monica Connected alt 2 Cha	1.05	11.7	7.35	1.03	150.5
Sierra Madre Connected Char	0.71	9.4	7.25	1.57	-11.0
Verdugo GR	1.25	7.7	6.65	1.35	48.5
Northridge GR	2.28	13.7	6.67	1.54	-29.7

#*********End of deaggregation corresponding to Campbell-Bozorgnia 2008 *********#

PSHA Deaggregation. %contributions. site: Van_Nuys long: 118.442 W., lat: 34.209 N.
Vs30(m/s)= 760.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 See USGS OFR 2008-1128. dM=0.2 below
Return period: 2475 yrs. Exceedance PGA =0.7716 g. Weight * Computed_Rate_Ex 0.176E-03
#Pr[at least one eq with median motion>=PGA in 50 yrs]=0.00048
#This deaggregation corresponds to Chiou-Youngs 2008

DIST(KM)	MAG(MW)	ALL_EPS	EPSILON>2	1<EPS<2	0<EPS<1	-1<EPS<0	-2<EPS<-1	EPS<-2
7.0	5.05	0.291	0.291	0.000	0.000	0.000	0.000	0.000
7.0	5.20	0.614	0.601	0.014	0.000	0.000	0.000	0.000
12.2	5.21	0.028	0.028	0.000	0.000	0.000	0.000	0.000
7.0	5.40	0.620	0.545	0.075	0.000	0.000	0.000	0.000
12.5	5.41	0.055	0.055	0.000	0.000	0.000	0.000	0.000
7.0	5.60	0.594	0.474	0.121	0.000	0.000	0.000	0.000
12.7	5.60	0.084	0.084	0.000	0.000	0.000	0.000	0.000
7.0	5.80	0.549	0.410	0.139	0.000	0.000	0.000	0.000
13.0	5.80	0.111	0.111	0.000	0.000	0.000	0.000	0.000
7.0	6.01	0.704	0.477	0.227	0.000	0.000	0.000	0.000
12.9	6.01	0.145	0.145	0.000	0.000	0.000	0.000	0.000
7.5	6.20	1.056	0.701	0.354	0.000	0.000	0.000	0.000
13.8	6.22	0.156	0.155	0.000	0.000	0.000	0.000	0.000
8.3	6.44	1.868	1.249	0.619	0.000	0.000	0.000	0.000
13.8	6.47	1.159	0.796	0.340	0.023	0.000	0.000	0.000
7.3	6.61	2.794	1.141	1.637	0.016	0.000	0.000	0.000
13.7	6.60	7.876	3.052	4.460	0.364	0.000	0.000	0.000
7.1	6.78	1.413	0.572	0.814	0.026	0.000	0.000	0.000
13.3	6.77	9.279	2.415	5.702	1.162	0.000	0.000	0.000
21.4	6.83	0.031	0.031	0.000	0.000	0.000	0.000	0.000
7.0	6.97	1.047	0.291	0.699	0.056	0.000	0.000	0.000
13.5	6.96	4.343	1.136	2.496	0.711	0.000	0.000	0.000
20.9	7.00	0.064	0.053	0.011	0.000	0.000	0.000	0.000
9.2	7.19	0.750	0.216	0.469	0.065	0.000	0.000	0.000
13.2	7.20	2.845	0.678	1.347	0.820	0.000	0.000	0.000
21.0	7.15	0.092	0.062	0.030	0.000	0.000	0.000	0.000
31.1	7.17	0.043	0.043	0.000	0.000	0.000	0.000	0.000
9.4	7.34	0.765	0.197	0.471	0.097	0.000	0.000	0.000
12.5	7.35	3.401	0.486	1.747	1.134	0.035	0.000	0.000
27.5	7.35	0.036	0.033	0.003	0.000	0.000	0.000	0.000
9.4	7.51	0.059	0.013	0.036	0.010	0.000	0.000	0.000
12.6	7.52	0.672	0.098	0.298	0.264	0.011	0.000	0.000
28.6	7.75	0.023	0.023	0.000	0.000	0.000	0.000	0.000

Summary statistics for above PSHA PGA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%): 43.7
Mean src-site R= 11.7 km; M= 6.72; eps0= 1.23. Mean calculated for all sources.
Modal src-site R= 13.3 km; M= 6.77; eps0= 1.11 from peak (R,M) bin
MODE R*= 13.3km; M*= 6.76; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 5.702

Principal sources (faults, subduction, random seismicity having > 3% contribution)
Source Category: % contr. R(km) M epsilon0 (mean values).

California B-faults Char	25.37	12.3	6.93	1.12	
California B-faults GR	11.59	12.7	6.71	1.34	
CA Compr. crustal gridded	6.68	7.7	5.93	1.45	

Individual fault hazard details if its contribution to mean hazard > 2%:

Fault ID	% contr.	Rcd(km)	M	epsilon0	Site-to-src azimuth (d)
Hollywood Char	0.82	13.1	6.60	2.00	151.8
Verdugo Char	2.04	5.8	6.78	1.21	41.8
Sierra Madre (San Fernando) Char	1.47	9.4	6.59	1.82	-11.0
Northridge Char	10.68	13.3	6.79	0.91	26.0
Santa Susana, alt 1 Char	1.26	13.0	6.81	2.10	-34.9
Santa Monica Connected alt 1 Cha	3.19	12.3	7.31	0.47	172.3
Santa Monica Connected alt 2 Cha	2.04	11.7	7.35	0.64	150.5
Sierra Madre Connected Char	1.60	9.4	7.26	1.23	-11.0
Verdugo GR	1.25	7.5	6.65	1.37	48.5
Northridge GR	5.94	13.8	6.66	1.12	-29.7

#**********End of deaggregation corresponding to Chiou-Youngs 2008 **********#

********** Southern California **********

APPENDIX F

APPENDIX F

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

1.0 General

1.1 Intent: These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 Geotechnical Consultant: Prior to commencement of work, the owner shall employ a geotechnical consultant. The geotechnical consultant shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested include natural ground after it has been cleared for receiving fill but before fill is placed, bottoms of all "remedial removal" areas, all key bottoms, and benches made on sloping ground to receive fill.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to determine the attained level of compaction. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor: The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the plans and specifications.

The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "spreads" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified.

2.0 Preparation of Areas to be Filled

2.1 Clearing and Grubbing: Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 5 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed

immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

2.2 Processing: Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Overexcavation: In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching: Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas: All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 General: Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize: Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 12 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import: If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 Fill Layers: Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning: Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557-91).

4.3 Compaction of Fill: After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557-91). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes: In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557-91.

4.5 Compaction Testing: Field tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing: Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations: The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

7.1 Contractor shall follow all OHSA and Cal/OSHA requirements for safety of trench excavations.

7.2 Bedding and backfill of utility trenches shall be done in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum 90 percent of maximum from 1 foot above the top of the conduit to the surface, except in traveled ways (see Section 7.6 below).

7.3 Jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

7.4 Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

7.5 Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

7.6 Trench backfill in the upper foot measured from finish grade within existing or future traveled way, shoulder, and other paved areas (or areas to receive pavement) should be placed to a minimum 95 percent relative compaction.

DEPARTMENT OF WATER & POWER
OF THE CITY OF LOS ANGELES
Power System
Integrated Support Services

ENVIRONMENTAL LABORATORY DATA REPORT

CLIENT: GEORGE FEAUSTLE

PROJECT: 7600 TYRONE AVE

REPORT NO.: C12054

TABLE OF CONTENTS

DEPARTMENT OF WATER & POWER
OF THE CITY OF LOS ANGELES
Power System
Integrated Support Services

ENVIRONMENTAL LABORATORY DATA REPORT

7600 TYRONE AVE, VAN NUYS
Soil Samples

Soil samples from 7600 Tyrone Ave, Van Nuys, were submitted to the Environmental Laboratory on May 28, 2013 for the determination of their Volatile Organic Compounds (VOC), Metals, Semi-Volatile Organic Compounds (SVOC), Total Extractable Petroleum Hydrocarbons (TEPH) including Motor Oil (MO) and Diesel Range Organic (DRO), Chlorinated Pesticides, Polychlorinated Biphenyls (PCBs), and Gasoline Range Organics (GRO) content.

Testing information including tests requested and test methods are listed below. All quality assurance data indicate that the results for these samples are of acceptable quality.

Analysis Requested	Method	Results	Analyzed by
VOC	EPA 8260 B	**Attachment #1**	Environmental Lab
Metals	EPA 6010B/7471	**Attachment #2**	Environmental Lab
TEPH/Diesel/Motor Oil	EPA 8015M	**Attachment #3**	Environmental Lab
GRO	EPA 8015B	**Attachment #4**	Environmental Lab
PCB	EPA 8082	**Attachment #5**	Weck Laboratories
Pesticides	EPA 8081	**Attachment #6 PENDING**	Weck Laboratories
SVOC	EPA 8270 C	**Attachment #7**	Weck Laboratories

An updated version of this report will be delivered upon completion of pesticide data.

If you have any questions, or if further information is required, please contact Mr. Jeremy Stoa at (213) 367-7266 or Mr. Kevin Han at (213) 367-7267.

Date Completed: 6/6/2013
Work Order No.: AHJ17
Job Card No.: J95550
Copies to: G. Feaustle
N. Liu
K. Han
J. Stoa
FileNet

Test Performed by: Environmental Lab
Weck Laboratories
Report By: JS Date: 6/06/13
Checked by: [signature] Date: 6/7/13

APPROVED BY: [signature] 6/7/13
Kevin Han Date
Interim Laboratory Manager
Environmental Laboratory

100001

Environme l Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Po r
City of Los Angeles

Chain of Custody Record

COC #: 13-1321

Page 1 of 4

Report C#
Refrig#. R154 Shelf JC# J95550 WO# AH5T7 Bin#.
Initial of Field Personnel:
No. of Field Test:

Sample Location: Tyrone property, 7600 Tyrone Ave, Van Nuys CA

	Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use -1 or X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1	B21-1', LN06205	5/28/13	0800									
2	B21-2' 06206	↓	0802	ARCHIVE	5°35/ICE	5	ENCORE SLEEVE		SOIL	(6010B) T-22 Metals/TPHcc (8015M)/SVOCs (8270C) (ARCHIVE)		
3	B21-3' 06207		0804									
4	B19-1' 06208		0810			↓	↓	↓		↓		
5	-2' 06209		0812	ARCHIVE		3	SLEEVE			OCPs (8081A) + As (6010B) (ARCHIVE)		
6	-3' 06210		0814			3						
7	B1-1' 06211		0825			3				↓		
8	-2' 06212		0827	ARCHIVE						Lead (6010B) (ARCHIVE)		
9	-3' 06213		0830									
10	B22-1' 06214		0850			↓	↓	↓	↓	↓		
11	-2' 06215		0852	ARCHIVE		5	ENCORE SLEEVE		SOIL	T-22 Metals/TPHcc/SVOCs (ARCHIVE)		
12	-3' 06216		0854									
13	B25-1' 06217		0900			↓	↓	↓		↓		
14	-2' 06218		0902	ARCHIVE		7	ENCORE SLEEVE			T-22 Metals/TPHcc/SVOCs/VOCs (8260B)/PCBs (8082) (ARCHIVE)		
15	-3' 06219		0904									
16	B4-1' 06220	↓	0910		↓	1	SLEEVE		↓	Pb (6010B)		

RUSH

Date & Time Stamp

RECD BY: ENVL CHEM LAB
2013 MAY 28 PM 1:35
LADWP

COC13-1321

Chem Lab COC Form
Revision 08/01/02

Requester George Fraustle (K. Drake) Organization/Div. LADWP / ALTA ENVIRON.
Address
Tel. Fax

Analyst: Date
Approved: Date

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify 1 week

BR
YC
TY
BT
DS

	Printed Name	Signature	Time	Date
Sampled by:	KRISTYN DRAKE (ALTA ENVIRONMENTAL)	[signature]	1300	5/28/13
Relinquished by:	K. Drake	[signature]	1330	5/28/13
Received by	T NGUYEN	[signature]	1335	5/28/13

LK RG EH DW

I00002

Environmental Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles
Chain of Custody Record

COC # : 13-1321

Page 2 of 4

Report C# ______ JC# ______ WO# ______
Refrig#. ______ Shelf ______ Bin#. ______
Initial of Field Personnel: ______ No. of Field Test: ______

Sample Location: Tyrone Property

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 B4-2' LN06221	5/28/13	0912	ARCHIVE								
2 ↓-3' 06222	↓	0914		5°C/ICE	3	SLEEVE		SOIL	Lead (6010B) 5		
3 B3-1' 06223		0920			↓	↓	↓		(ARCHIVE) ↓		
4 ↓-2' 06224		0922	ARCHIVE								
5 ↓-3' 06225		0924			3	SLEEVE					
6 B2-1' 06226		0930							Pb-Lead (6010B) 5		
7 ↓-2' 06227		0932	ARCHIVE		↓	↓	↓		(ARCHIVE) ↓		
8 ↓-3' 06228		0934									
9 B26-1' 06229		0940							(ARCHIVE)		
10 -2' 06230		0942	ARCHIVE		7	ENCORE/SLEEVE					
11 ↓-3' 06231		0944							T22 Metals/TPHcc/VOCs/SVOCs/PCBs		
12 B18-1' 06232		0950			↓	↓			(ARCHIVE) ↓		
13 -2' 06233		0952	ARCHIVE		3	SLEEVE					
14 ↓-3' 06234		0954							OCPs (8081A) + As (6010B)		
15 B6-1' 06235		1000			↓	↓	↓		(ARCHIVE) ↓		
16 ↓-2' 06236	↓	1002	ARCHIVE	↓	3	SLEEVE		↓	Pb (6010B) (ARCHIVE)		

Date & Time Stamp

RECD DIV. CHEM LAB 2013 MAY 28 PM 1:35 LADWP

Chem Lab COC Form III Revision: 08/01/06

<< COC# Label Here >>

Requester: George Fraustro / K. Drake   Organization/Div. LADWP / Atta Environ.
Address ______ Tel. ______ Fax ______

Analyst: ______ Date ______
Approved: ______ Date ______

Priority
- 2-4 Hrs
- 1Day
- 2 Wks (circled)
- 4Wks
- Specify

Printed Name	Signature	Time	Date
Sampled by: K. Drake	Sampled by: [signature]	1300	5/28/13
Relinquished by: K. Drake	Relinquished by: [signature]	1330	
Received by: T NGUYEN	Received by: [signature]	1335	5/28/13

1000003

Environm[illegible]l Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Po[illegible]er
City of Los Angeles

Chain of Custody Record

COC #: 13-1321

Page 3 of 4

Report C# ______ JC# ______ WO# ______
Refrig#. ______ Shelf ______ Bin#. ______
Initial of Field Personnel: ______ No. of Field Test: ______

Sample Location: Tyrone Property

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use 1 or X)		Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 B6-3'	LN06237	5/28/13	1004									
2 B8-1'	06238	↓	1010		~~[illegible]~~/ICE	3	SLEEVE	SOIL		Pb (6010B)		
3 -2'	06239	↓	1012	ARCHIVE	ICE	3	SLEEVE			Pb (6010B)		
4 -3	06240	↓	1014		↓	↓	↓	↓	↓			
5 B29-1'	06241	↓	1020		↓	↓	↓	↓	↓	(ARCHIVE)		
6 -2'	06242	↓	1022	ARCHIVE	↓	3	↓	↓	↓	↓		
7 -3'	06243	↓	1024		↓	↓	↓	↓	↓	TPH diesel + oil / SVOCS		
8 B5-1'	06244	↓	1030		↓	↓	↓	↓	↓	(ARCHIVE)		
9 -2'	06245	↓	1032	ARCHIVE	↓	3	↓	↓	↓	Pb (6010B)		
10 -3'	06246	↓	1034		↓	↓	↓	↓	↓	~~(ARCHIVE)~~ (KD)		
11 B7-1'	06247	↓	1040		↓	↓	↓	↓	↓	(ARCHIVE)		
12 -2'	06248	↓	1042	ARCHIVE	↓	↓	↓	↓	↓	↓		
13 -3'	06249	↓	1044		↓	↓	↓	↓	↓	Pb (6010B)		
14 B20-1'	06250	↓	1050		↓	↓	↓	↓	↓	(ARCHIVE)		
15 -2'	06251	↓	1052	ARCHIVE	↓	↓	↓	↓	↓	↓		
16 -3'	06252	↓	1054		↓	↓	↓	↓	↓	OCPs (8081A) + As (6010B) (ARCHIVE)		

Date & Time Stamp

LADWP 2013 MAY 28 PM 1:35 RECD BY: ENV. CHEM LAB

<< COC Label Here >>

Chem Lab COC Form #1
Revision: 08/01/02

Requester George Feastle (K. Drake) Organization/Div. LDWP / Alta Environ.
Address ______ Tel. ______ Fax ______

Analyst: ______ Date ______
Approved: ______ Date ______

Priority
2-4 Hrs
1Day
(2 Wks)
4Wks
Specify

Printed Name	Signature	Time	Date
Sampled by: K. Drake	Sampled by: [signature]	1300	5/28/13
Relinquished by: K. Drake	Relinquished by: [signature]	1330	5/28/13
Received by T NGUYEN	Received by [signature]	1335	5/28/13

Environme l Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Po..er
City of Los Angeles

Chain of Custody Record

COC #: 13-1321 Page 1 of 1

Report C# _____ JC# _____ WO# _____
Refrig#. R154 Shelf _____ Bin#. _____
Initial of Field Personnel: _____ No. of Field Test: _____

Sample Location: Tyrone Property

	Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .2)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1	B9-1' LN06253	5/28/13	1100		ICE	3			SOIL	PB (6010B)		
2	-2' 06254		1102	ARCHIVE						(ARCHIVE)		
3	-3' 06255		1104							ARCHIVE		
4	B10-1 06256		1110									
5	-2' 06257		1112	ARCHIVE						TPH diesel/oil + SVOCs		
6	-3 06258		1114							(ARCHIVE)		
7	B30-1' 06259		1130									
8	-2' 06260		1132	ARCHIVE						PB(6010B)		
9	-3' 06261		1134							(ARCHIVE)		
10	B11-1' 06262		1210									
11	-2' 06263		1212	ARCHIVE								
12	-3 06264		1214									
13	B12-1 LN											
14	-2 tr 5/29/13											
15	B17-1											
16	-3											

9000T

Date & Time Stamp
LADWP
2013 MAY 28 PM 1:35
RECD BY: ENV. CHEM LAB
Chem Lab COC Form
Revision 08/01/02

>> COC# Label Here <<

Requester George Feustle/K. Drake Organization/Div. LADWP/AJA Environ.
Address _____ Tel. _____ Fax _____

Analyst: _____ Date _____
Approved: _____ Date _____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

	Printed Name	Signature	Time	Date
Sampled by:	K. Drake			
Relinquished by:	K. Drake		1300	5/28/13
Received by	T NGWEA		1330	5/28/13
		tr	1335	5/28/13

ATTACHMENT #1

VOLATILE ORGANIC COMPOUNDS (VOC)

EPA METHOD 8260 B

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

Sample Matrix: Soil

COC 13-1321
COC 13-1326

PROJECT: 7600 TYRONE

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06217	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-3
LN06335	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-1
LN06337	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-3
LN06341	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-1

Compounds	MDL ug/kg	PQL ug/kg	LN06217 Amount ug/kg	LN06219 Amount ug/kg	LN06229 Amount ug/kg	LN06231 Amount ug/kg	LN06335 Amount ug/kg	LN06337 Amount ug/kg	LN06341 Amount ug/kg
Acetone	32	160.0	nd	nd	nd	nd	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Benzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	24	120.0	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
Bromoform	23	115.0	nd	nd	nd	nd	nd	nd	nd
Bromomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
Methyl ethyl ketone (MEK)	26	130.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd	nd	nd	nd	nd	nd	nd
Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd	nd	nd	nd	nd	nd	nd
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Chloroethane	42	210.0	nd	nd	nd	nd	nd	nd	nd
2-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd	nd	nd
Chloroform	30	150.0	nd	nd	nd	nd	nd	nd	nd
Chloromethane	70	350.0	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	27	135.0	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
Dichlorodifluoromethane	37	185.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	29	145.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	32	160.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	21	105.0	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	38	190.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	27	135.0	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nd	nd	nd	nd
Diisopropyl ether (DIPE)	26	130.0	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Hexachlorobutadiene	44	220.0	nd	nd	nd	nd	nd	nd	nd

ENVIRONMENTAL LABORATORY DATA REPORT
Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

Sample Matrix: Soil

COC 13-1321
COC 13-1326

PROJECT: 7600 TYRONE

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06217	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-3
LN06335	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-1
LN06337	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-3
LN06341	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-1

Compounds	MDL ug/kg	PQL ug/kg	LN06217 Amount ug/kg	LN06219 Amount ug/kg	LN06229 Amount ug/kg	LN06231 Amount ug/kg	LN06335 Amount ug/kg	LN06337 Amount ug/kg	LN06341 Amount ug/kg
2-Hexanone	21	105.0	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	31	155.0	nd	nd	nd	nd	nd	nd	nd
Iodomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd	nd	nd	nd	nd	nd	nd
Naphthalene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Propylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Styrene	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethylene	27	135.0	nd	nd	nd	nd	nd	nd	nd
Toluene	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	26	130.0	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Trichloroethylene	24	120.0	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	35	175.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Vinyl acetate	52	260.0	nd	nd	nd	nd	nd	nd	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd	nd	nd	nd	nd	nd	nd
m & p-Xylene	75	375.0	nd	nd	nd	nd	nd	nd	nd
o-Xylene	28	140.0	nd	nd	nd	nd	nd	nd	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)
J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	104.0%	103.7%	102.7%	103.3%	102.3%	103.3%	102.7%
SURR: Dibromofluoromethane	80 - 120	97.0%	96.0%	95.0%	96.3%	95.3%	95.3%	95.3%
SURR: Toluene-d8	81 - 117	93.7%	92.3%	90.0%	92.3%	92.3%	92.3%	92.3%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

ENVIRONMENTAL LABORATORY DATA REPORT
Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

Sample Matrix: Soil

COC 13-1321
COC 13-1326

PROJECT: 7600 TYRONE

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06343	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-3

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN06343 Amount (ug/kg)
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
2-Butanone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
n-Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane (EDB)	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd
Hexachlorobutadiene	44	220.0	nd

ENVIRONMENTAL LABORATORY DATA REPORT
Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

Sample Matrix: Soil

COC 13-1321
COC 13-1326

PROJECT: 7600 TYRONE

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06343	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-3

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN06343 Amount (ug/kg)
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
Methyl iodide (Iodomethane)	20	100.0	nd
4-Methyl-2-pentanone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene (Phenylethylene)	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene (PCE)	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene (TCE)	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)
J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	
SURR: Bromofluorobenzene	74 - 121	103.7%
SURR: Dibromofluoromethane	80 - 120	95.0%
SURR: Toluene-d8	81 - 117	92.7%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/28/2013	5/28/2013	6/3/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/28/2013	5/28/2013	6/3/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Hexachlorobutadiene	44	220.0	nd
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
Iodomethane	20	100.0	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	
SURR: Bromofluorobenzene	74 - 121	102.0%
SURR: Dibromofluoromethane	80 - 120	96.7%
SURR: Toluene-d8	81 - 117	92.7%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

Project No: 7600 TYRONE

(RWQCB LabForm10A;Ver12/94)

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 6/3/13 ANALYTICAL METHOD: USEPA 8260

BATCH #: LN06217 LN LN06217 LN06219 LN06229 LN06231 LN06335 LN06337 LN06341 LN06343

LAB SAMPLE I.D.: LN06217 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	25.3	84.3	30.0	25.9	86.3	2.3 %	59-172	22%
Benzene	ND	30.0	29.9	99.7	30.0	30.5	102	2.3 %	66-142	21%
Trichloroethylene	ND	30.0	30.8	103	30.0	31.3	104	0.97 %	62-137	24%
Toluene	ND	30.0	30.6	102	30.0	31.5	105	2.9 %	59-139	21%
Chlorobenzene	ND	30.0	35.7	119	30.0	36.6	122	2.5 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 6/3/13 ANALYTICAL METHOD: USEPA 8260

SUPPLY SOURCE: LAB LCS I.D.: Q8087

LOT NUMBER: UNIT: ug/kg

DATE OF SOURCE:

ANALYTE	LCS RESULT ug/kg	TRUE VALUE ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	29.9	30	99.7	70 - 130
1,2-Dichloroethane	32.1	30	107.0	70 - 130
1,4-Dichlorobenzene	31.3	30	104.3	70 - 130
Benzene	28.9	30	96.3	70 - 130
Bromoform	33	30	110.0	70 - 130
Carbon Tetrachloride	27	30	90.0	70 - 130
Tetrachloroethylene	28.2	30	94.0	70 - 130
Trichloroethylene	27.2	30	90.7	70 - 130

Analyst: B. Tiu

Reviewed by: R. Gentallen

200007

ATTACHMENT #2

METALS/MERCURY

EPA METHOD 6010B/7471

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06205	5/28/13	5/28/13	5/31/13	7600 TYRONE, B21-1
LN06207	5/28/13	5/28/13	6/3/13	7600 TYRONE, B21-3
LN06214	5/28/13	5/28/13	6/3/13	7600 TYRONE, B22-1
LN06216	5/28/13	5/28/13	6/3/13	7600 TYRONE, B22-3
LN06217	5/28/13	5/28/13	6/4/13	7600 TYRONE, B25-1
LN06219	5/28/13	5/28/13	6/4/13	7600 TYRONE, B25-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06205 mg/kg	LN06207 mg/kg	LN06214 mg/kg	LN06216 mg/kg	LN06217 mg/kg	LN06219 mg/kg
Antimony	500	15	6010	1.0	5.0	100	4.6J	3.7J	2.9J	3.6J	3.3J	4.2J
Arsenic	500	5	6010	2.6	13.0	100	ND	ND	ND	ND	ND	ND
Barium	10000	100	6010	3.7	18.5	100	263	254	170	201	194	281
Beryllium	75	0.75	6010	0.7	3.5	100	ND	ND	ND	ND	ND	ND
Cadmium	100	1	6010	0.6	3.0	100	3.4	3.0J	2.6J	2.4J	2.42J	3.0J
Chromium (T)	500	5	6010	1.4	7.0	100	22	22.5	20	18	16.4	23
Cobalt	8000	80	6010	1.0	5.0	100	17	16	10	14	13.5	16
Copper	2500	25	6010	1.6	8.0	100	22	18	15	15	13.5	19
Lead	1000	5	6010	0.9	4.5	100	18	14	48	11	10.5	13
Molybdenum	3500	350	6010	0.3	1.5	100	ND	ND	ND	ND	ND	ND
Nickel	2000	20	6010	0.6	3.0	100	22	24	16	18	16.6	24
Selenium	100	1	6010	1.6	8.0	100	ND	ND	ND	ND	ND	ND
Silver	500	5	6010	1.5	7.5	100	ND	ND	7.5J	ND	ND	ND
Thallium	700	7	6010	1.5	7.5	100	ND	ND	ND	ND	ND	ND
Vanadium	2400	24	6010	1.8	9.00	100	42	34	26	28	28	37
Zinc	5000	250	6010	1.9	9.50	100	77	61	191	48	48	60
Mercury	20	0.2	7471	0.0200	0.100	100	0.024	0.015	0.042	0.013	0.009	0.013

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst : YC

COC 13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06229	5/28/13	5/28/13	6/5/13	7600 TYRONE, B26-1
LN06231	5/28/13	5/28/13	6/5/13	7600 TYRONE, B26-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06229 mg/kg	LN06231 mg/kg				
Antimony	500	15	6010	1.0	5.0	100	1.3J	3.1J				
Arsenic	500	5	6010	2.6	13.0	100	ND	ND				
Barium	10000	100	6010	3.7	18.5	100	61	195				
Beryllium	75	0.75	6010	0.7	3.5	100	ND	ND				
Cadmium	100	1	6010	0.6	3.0	100	1.1J	2.9J				
Chromium (T)	500	5	6010	1.4	7.0	100	7.8	18				
Cobalt	8000	80	6010	1.0	5.0	100	5.5	15				
Copper	2500	25	6010	1.6	8.0	100	11.6	13				
Lead	1000	5	6010	0.9	4.5	100	6.0	11				
Molybdenum	3500	350	6010	0.3	1.5	100	ND	ND				
Nickel	2000	20	6010	0.6	3.0	100	9.3	20				
Selenium	100	1	6010	1.6	8.0	100	ND	ND				
Silver	500	5	6010	1.5	7.5	100	ND	ND				
Thallium	700	7	6010	1.5	7.5	100	ND	ND				
Vanadium	2400	24	6010	1.8	9.00	100	18	31				
Zinc	5000	250	6010	1.9	9.50	100	26	56				
Mercury	20	0.2	7471	0.0200	0.100	100	0.021	0.012				

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst : YC

300002

ENVIRONMENTAL LABORATORY DATA REPORT

13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED			SAMPLE DESCRIPTION				
LN06208	5/28/13	5/28/13	5/30/13			7600 TYRONE, B19-1				
LN06210	5/28/13	5/28/13	5/30/13			7600 TYRONE, B19-3				
LN06232	5/28/13	5/28/13	6/4/13			7600 TYRONE, B18-1				
LN06234	5/28/13	5/28/13	6/4/13			7600 TYRONE, B18-3				
LN06250	5/28/13	5/28/13	6/4/13			7600 TYRONE, B20-1				
LN06252	5/28/13	5/28/13	6/4/13			7600 TYRONE, B20-3				

	LIMIT	LIMIT										
	TTLC	STLC					LN06208	LN06210	LN06232	LN06234	LN06250	LN06252
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Arsenic	500	5	6010	2.6	13.0	100	ND	ND	ND	ND	ND	ND

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst : YC

ENVIRONMENTAL LABORATORY DATA REPORT

13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

Method : 6010

Matrix: Soil

Project: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06211	5/28/13	5/28/13	5/30/13	7600 TYRONE B1-1
LN06213	5/28/13	5/28/13	5/30/13	7600 TYRONE B1-3
LN06220	5/28/13	5/28/13	5/30/13	7600 TYRONE B4-1
LN06222	5/28/13	5/28/13	5/30/13	7600 TYRONE B4-3
LN06223	5/28/13	5/28/13	5/30/13	7600 TYRONE B3-1
LN06225	5/28/13	5/28/13	5/30/13	7600 TYRONE B3-3

	LIMIT	LIMIT										
	TTLC	STLC					LN06211	LN06213	LN06220	LN06222	LN06223	LN06225
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Lead	1000	5	6010	0.9	4.5	100	9.8	12.0	11.0	12.0	12.0	12.0

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06226	5/28/13	5/28/13	5/30/13	7600 TYRONE B2-1
LN06228	5/28/13	5/28/13	5/30/13	7600 TYRONE B2-3
LN06235	5/28/13	5/28/13	5/30/13	7600 TYRONE B6-1
LN06237	5/28/13	5/28/13	6/3/13	7600 TYRONE B6-3
LN06238	5/28/13	5/28/13	6/3/13	7600 TYRONE B8-1
LN06240	5/28/13	5/28/13	6/3/13	7600 TYRONE B8-3

	LIMIT	LIMIT										
	TTLC	STLC					LN06226	LN06228	LN06235	LN06237	LN06238	LN06240
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Lead	1000	5	6010	0.9	4.5	100	11.0	15.0	5.7	10.0	24.0	72.0

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: YC

ENVIRONMENTAL LABORATORY DATA REPORT

13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

Method : 6010

Matrix: Soil

Project: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06244	5/28/13	5/28/13	6/4/13	7600 TYRONE B5-1
LN06246	5/28/13	5/28/13	6/4/13	7600 TYRONE B5-3
LN06247	5/28/13	5/28/13	6/4/13	7600 TYRONE B7-1
LN06249	5/28/13	5/28/13	6/4/13	7600 TYRONE B7-3
LN06253	5/28/13	5/28/13	6/4/13	7600 TYRONE B9-1
LN06255	5/28/13	5/28/13	6/4/13	7600 TYRONE B9-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06244 mg/Kg	LN06246 mg/Kg	LN06247 mg/Kg	LN06249 mg/Kg	LN06253 mg/Kg	LN06255 mg/Kg
Lead	1000	5	6010	0.9	4.5	100	52.0	11.0	50.0	15.0	22.0	14.0

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06256	5/28/13	5/28/13	5/30/13	7600 TYRONE B10-1
LN06258	5/28/13	5/28/13	5/30/13	7600 TYRONE B10-3
LN06262	5/28/13	5/28/13	5/30/13	7600 TYRONE B11-1
LN06264	5/28/13	5/28/13	6/3/13	7600 TYRONE B11-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06256 mg/Kg	LN06258 mg/Kg	LN06262 mg/Kg	LN06264 mg/Kg
Lead	1000	5	6010	0.9	4.5	100	15.0	15.0	13.0	17.0

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: YC

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

LABORATORY LOG NO	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06205 Dup	05/28/13	5/28/13	5/31/13	7600 TYRONE, B21-1
LN06217 Dup	5/28/13	5/28/13	6/4/13	7600 TYRONE, B25-1

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06205 (mg/kg)	LN06217 (mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	500	15	6010	1.0	5.0	1	4.5J	3.6J				
Arsenic	500	5	6010	2.6	13.0	1	ND	ND				
Barium	10000	100	6010	3.7	18.5	1	228	213				
Beryllium	75	0.75	6010	0.7	3.5	1	ND	ND				
Cadmium	100	1	6010	0.6	3.0	1	3.0J	2.4J				
Chromium (T)	2500	5	6010	1.4	7.0	1	20	17				
Cobalt	8000	80	6010	1.0	5.0	1	16	14				
Copper	2500	25	6010	1.6	8.0	1	20	15				
Lead	1000	5	6010	0.9	4.5	1	20	11.1				
Molybdenum	3500	350	6010	0.3	1.5	1	ND	ND				
Nickel	2000	20	6010	0.6	3.0	1	21	17.5				
Selenium	100	1	6010	1.6	8.0	1	ND	ND				
Silver	500	5	6010	1.5	7.5	1	ND	ND				
Thallium	700	7	6010	1.5	7.5	1	ND	ND				
Vanadium	2400	24	6010	1.8	9.0	1	38	26				
Zinc	5000	250	6010	1.9	9.5	1	79	49				

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
R.L. - Report Limit
D. F. - Dilution Factor

** - exceed TTLC limit
* - exceed 10x STLC limit
J - concentration above MDL and below RL

Analyst: YC

PROJECT: 7600 TYRONE

COC 13-1321

QA/QC Report

I. Blank Spike (BS) / Blank Spike Duplicate (BSD)

DATE ANALYZED: 05/31/13

ANALYTICAL METHOD USEPA 6010/7000

BATCH #: $TTLCS-7732 LN06205 LN06207 LN06214 LN06216

LAB SAMPLE I.D.: BLANK SOIL

UNIT: (Circle One) (mg/kg) mg/L

METAL	SAMPLE RESULT	SPIKE CONC	BS	%BS	DUP SPIKE CONC	BSD	%BSD	RPD	BS/BSD % REC LIMIT	RPD LIMIT
Antimony	1.0	200	149	74.0	200	148	73.5	0.7%	14 - 89	< 30
Arsenic	ND	200	194	97.0	200	196	98.0	1.0%	70 - 130	< 30
Barium	---	---	---	---	---	---	---	---	---	---
Beryllium	ND	200	187	93.5	200	188	94.0	0.5%	70 - 130	< 30
Cadmium	ND	200	180	90.0	200	183	91.5	1.7%	70 - 130	< 30
Chromium (T)	ND	200	190	95.0	200	191	95.5	0.5%	70 - 130	< 30
Cobalt	ND	200	194	97.0	200	197	98.5	1.5%	70 - 130	< 30
Copper	ND	200	193	96.5	200	193	96.5	0.0%	70 - 130	< 30
Lead	5.0	200	189	92.0	200	189	92.0	0.0%	70 - 130	< 30
Molybdenum	0.5	200	194	96.8	200	195	97.3	0.5%	70 - 130	< 30
Nickel	1.6	200	193	95.7	200	195	96.7	1.0%	70 - 130	< 30
Selenium	ND	200	180	90.0	200	181	90.5	0.6%	70 - 130	< 30
Silver	---	---	---	---	---	---	---	---	---	---
Thallium	ND	200	105	52.5	200	104	52.0	1.0%	---	---
Vanadium	8.5	200	202	96.8	200	204	97.8	1.0%	70 - 130	< 30
Zinc	4.0	200	175	85.5	200	177	86.5	1.2%	70 - 130	< 30

BS = Blank Spike BSD = Blank Spike Duplicate
%BS = Percent Recovery of Blank Spike

RPD = Relative Percent Difference
%BSD = Percent Recovery of Blank Spike Duplicate

Analyst: YC

PROJECT: 7600 TYRONE

COC 13-1321

QA/QC Report

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE ANALYZED: 05/30/13 ANALYTICAL METHOD: USEPA 6010/7000

BATCH #: $TTLCS-77 (LN06205 LN06207 LN06214 LN06216)

LAB SAMPLE I.D.: LN06205 UNIT: (Circle One) (mg/kg)

METAL	SAMPLE RESULT	SPIKE CONC	MS	%MS	(DUP) SPIKE CONC	MSD	%MSD	RPD	MS/MSD % REC. LIMIT	RPD LIMIT
Antimony	4.6	200	44	19.7	200	44	19.7	0.0%	14 - 89	< 30
Arsenic	ND	200	180	90.0	200	184	92.0	2.2%	70 - 130	< 30
Barium	---	200	---	---	200	---	---	---	70 - 130	< 30
Beryllium	ND	200	184	92.0	200	185	92.5	0.5%	70 - 130	< 30
Cadmium	3.4	200	165	80.8	200	167	81.8	1.2%	70 - 130	< 30
Chromium (T)	22	200	203	90.5	200	206	92.0	1.6%	70 - 130	< 30
Cobalt	17	200	186	84.5	200	189	86.0	1.8%	70 - 130	< 30
Copper	22	200	205	91.5	200	207	92.5	1.1%	70 - 130	< 30
Lead	18	200	178	80.0	200	180	81.0	1.2%	70 - 130	< 30
Molybdenum	ND	200	169	84.5	200	171	85.5	1.2%	70 - 130	< 30
Nickel	22	200	201	89.5	200	205	91.5	2.2%	70 - 130	< 30
Selenium	ND	200	171	85.5	200	175	87.5	2.3%	70 - 130	< 30
Silver	---	200	---	---	200	---	---	---	70 - 130	< 30
Thallium	---	200	---	---	200	---	---	---	70 - 130	< 30
Vanadium	42	200	231	94.5	200	233	95.5	1.1%	70 - 130	< 30
Zinc	77	200	248	85.5	200	243	83.0	3.0%	70 - 130	< 30
Mercury	0.024	0.250	0.298	110	0.250	0.293	108	1.5%	70 - 130	< 30

MS = Matrix Spike MSD = Matrix Spike Duplicate RPD = Relative Percent Difference

%MS = Percent Recovery of Matrix Spike %MSD = Percent Recovery of Matrix Spike Duplicate

Analyst: YC

PROJECT 7600 TYRONE

COC 13-1321

II. Calibration and Laboratory Quality Control Check Sample (LCS)

DATE ANALYZED: 05/31/13

SUPPLY SOURCE: VHG

LOT NUMBER: 201-0040

ANALYTICAL: USEPA 6010/7000

LAB LCS I.D.: Q8732

UNIT: (Circle One) (mg/kg) mg/L

METAL	LCS RESULTS mg/kg	TRUE VALUE mg/kg	% Recovery	Acceptable Range % Recovery
Antimony	64	80.0	80.0	48 - 84
Arsenic	405	400	101	70 - 130
Barium	394	400	99	70 - 130
Beryllium	10	10.0	100	70 - 130
Cadmium	10.1	10.0	101	70 - 130
Chromium (T)	79	80.0	99	70 - 130
Cobalt	41	40.0	103	70 - 130
Copper	81	80.0	101	70 - 130
Lead	82	80.0	103	70 - 130
Molybdenum	---	---	---	---
Nickel	81	80.0	101	70 - 130
Selenium	186	200	93	70 - 130
Silver	10	10.0	100	70 - 130
Thallium	39	80.0	49	70 - 130
Vanadium	89	80.0	111	70 - 130
Zinc	180	200	90	70 - 130

Analyst: YC

6/7/13

ATTACHMENT #3

TOTAL EXTRACTABLE PETROLEUM
HYDROCARBONS (TEPH)
MOTOR OIL (MO)
DIESEL RANGE ORGANIC (DRO)

EPA METHOD 8015M

COC No. 13-1321

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015M
TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST ID	RUN BATCH
LN06205	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B21-1	GC Agilent	053113
LN06207	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B21-3	GC Agilent	053113
LN06214	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B22-1	GC Agilent	053113
LN06216	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B22-3	GC Agilent	053113
LN06217	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B25-1	GC Agilent	053113
LN06219	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B25-3	GC Agilent	053113
LN06229	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B26-1	GC Agilent	053113

	MDL / PQL mg/kg	MB mg/kg	LN06205 mg/kg	LN06207 mg/kg	LN06214 mg/kg	LN06216 mg/kg	LN06217 mg/kg	LN06219 mg/kg	LN06229 mg/kg
Dilution Factor		1	1	1	1	1	1	1	1
TEPH (C9 - C36)	4 / 20	ND	12.6 J	ND	12.6 J	ND	12.5 J	ND	4.4 J
DRO (C10 - C28)	29 / 145	ND	ND	ND	ND	ND	ND	ND	ND
MOTOR OIL	35 / 175	ND	ND	ND	ND	ND	ND	ND	ND
Quality Control Data		MB							
Surrogate/Internal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooctadecane	(60 - 140)	90.5%	87.5%	79.5%	77.5%	97.5%	99.5%	79.5%	104%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - above MDL but below PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1321

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015M
TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST. ID	RUN BATCH
LN06231	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B26-3	GC Agilent	060209
LN06241	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B29-1	GC Agilent	060209
LN06243	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B29-3	GC Agilent	060209
LN06259	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B30-1	GC Agilent	060209
LN06261	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B30-3	GC Agilent	060209

	MDL / PQL mg/kg		LN06231 mg/kg	LN06241 mg/kg	LN06243 mg/kg	LN06259 mg/kg	LN06261 mg/kg		
Dilution Factor			1	1	1	1	1		
TEPH (C9 - C36)	4 / 20		ND	12.6 J	4.1 J	12.7 J	12.4 J		
DRO (C10 - C28)	29 / 145		ND	ND	ND	ND	ND		
MOTOR OIL	35 / 175		ND	ND	ND	ND	ND		
Quality Control Data									
Surrogate/Internal Std.	% ACP		% RC	% RC	% RC	% RC	% RC		
1-Chlorooctadecane	(60 - 140)		102%	71.5%	110%	105%	115%		

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - above MDL but below PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1321

ENVIRONMENTAL LABORATORY

QA/QC REPORT
TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST ID	RUN BATCH
LN06216 DUP	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B22-3	GC Agilent	053113

	MDL / PQL mg/kg		LN06216 DUP mg/kg
Dilution Factor			1
TEPH (C9 - C36)	4 / 20		ND
DRO (C10 - C28)	29 / 145		ND
MOTOR OIL	35 / 175		ND
Quality Control Data			
Surrogate/Internal Std.	% ACP		% RC
1-Chlorooctadecane	(60 - 140)		88.5%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - above MDL but below PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1321

ENVIRONMENTAL LABORATORY

QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL
Project: 7600 TYRONE

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.: Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit: mg/kg

ANALYTE		RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
TEPH		053113	5/31/2013	280	209	74.6	70 - 130
DRO		053113	5/31/2013	500	379	75.8	70 - 130
MO		053113	5/31/2013	500	436	87.2	70 - 130

Analysts J. Yi

Reviewed by R. Gentallan
6/4/13

400004

ATTACHMENT #4

GASOLINE RANGE ORGANICS (GRO)

EPA METHOD 8015B

COC No. 13-1321

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015B
GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INSTR ID	RUN LOG/BATCH
LN06205	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B21-1	AG gas	20130530
LN06207	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B21-3	AG gas	20130530
LN06214	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B22-1	AG gas	20130530
LN06216	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B22-3	AG gas	20130530
LN06217	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B25-1	AG gas	20130530
LN06219	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B25-3	AG gas	20130530
LN06229	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B26-1	AG gas	20130530

	MDL / PQL mg/kg	MB mg/kg	LN06205 mg/kg	LN06207 mg/kg	LN06214 mg/kg	LN06216 mg/kg	LN06217 mg/kg	LN06219 mg/kg	LN06229 mg/kg
Dilution Factor	1	1	1	1	1	1	1	1	1
Gasoline (GRO)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality Control Data									
Surrogate/Internal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorobenzene-d4	(70 - 130)	109%	107%	104%	108%	108%	108%	107%	108%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

COC No. 13-1321

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015B
GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INSTR. ID	RUN LOG/BATCH
LN06231	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B26-3	AG gas	20130530
LN06241	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B29-1	AG gas	20130530
LN06243	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B29-3	AG gas	20130530
LN06259	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B30-1	AG gas	20130530
LN06261	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B30-3	AG gas	20130530

	MDL / PQL mg/kg	MB mg/kg	LN06231 mg/kg	LN06241 mg/kg	LN06243 mg/kg	LN06259 mg/kg	LN06261 mg/kg		
Dilution Factor	1	1	1	1	1	1	1		
Gasoline (GRO)	1.1 / 5.5	ND	ND	ND	ND	ND	ND		
Quality Control Data									
Surrogate/Internal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC		
	(70 - 130)	109%	108%	107%	107%	108%	107%		

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

ENVIRONMENTAL LABORATORY

QA/QC REPORT
GRO (Gasoline Range Organics)

Sample Matrix: SOIL
Project: 7600 TYRONE

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)
Reporting Unit: mg/kg

SAMPLE	BATCH	SAMPLE	SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN06205	20130530	ND	22.0	22.4	102%	22.9	104%	2.2%	70-130	30

SPIKE CONC = Spiking Concentration;
MS = Matrix Spike
MSD = Matrix Spike Duplicate
% MS = Percent Recovery of MS
% MSD = Percent Recovery of MSD
RPD = Relative Percent Difference
ACP = Acceptable Range of Percent

II. Laboratory Quality Control Check Sample (LCS)
LCS Log No. Q8637

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130530	5/29/2013	22.0	20.9	95.0	70 - 130

Analyzed by *B. Estrada*
Reviewed by *R. Gentallan*
RG 6/4/13

ATTACHMENT #5

POLYCHLORINATED BIPHENYLS (PCBs)

EPA Method 8082

ENVIRONMENTAL LABORATORY DATA REPORT

ANALYTICAL RESULT FOR PCBs by EPA600/SR-94/112/8082
(Polychlorinated Biphenyls)
Sample Matrix: Soil (Low Level)

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06217	5/28/2013	5/28/2013	5/30/2013	5/31/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	5/30/2013	5/31/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	5/30/2013	5/31/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	5/30/2013	5/31/2013	7600 TYRONE, B26-3

PARAMETERS	MDL/PQL (mg/kg)	LN06217 (mg/kg)	LN06219 (mg/kg)	LN06229 (mg/kg)	LN06231 (mg/kg)			
PCB - 1221	0.07/0.2	ND	ND	ND	ND			
PCB - 1232	0.07/0.2	ND	ND	ND	ND			
PCB - 1242	0.07/0.2	ND	ND	ND	ND			
PCB - 1248	0.07/0.2	ND	ND	ND	ND			
PCB - 1254	0.07/0.2	ND	ND	ND	ND			
PCB - 1260	0.07/0.2	ND	ND	ND	ND			
SURROGATE PARAMETERS	QC LIMIT %	% Recovery	% Recovery	% Recovery	% Recovery			
DECACHLOROBIPHENYL	70 - 130	94	95	98	106			

MDL - Method Detection Limit

ND - Not Detected; below method detection limit

Analyst: D. Wong

Reviewed by: 6/4/13

Project Name : Tyrone Property, 7600 Tyrone Ave., Van Nuys, CA

QA/QC Report

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

ANALYTICAL METHOD: USEPA 600/SR-94/112
USEPA 8082

DATE ANALYZED: 06/04/13
BATCH #: 53013
LAB SAMPLE I.D.: LN06364

UNIT: mg/kg

PARAMETERS	SAMPLE RESULT	SPIKE CONC	MS	%MS	(DUP) SPIKE CONC	MSD	%MSD	RPD	MS/MSD % REC LIMIT	% RPD LIMIT
PCB-1242	0.0	25.0	20.8	83	25.0	20.3	81	2%	70 - 130	30
PCB-1260	0.0	25.0	NR	NR	25.0	NR	NR	NR	70 - 130	30

NR = Not reported dut to matrix interference.

MS - Matrix Spike *MSD - Matrix Spike Dupllicate*
%MS - Percent Recovery of Matrix Spike

RPD - Relative Percent Difference
%MSD - Percent Recovery of Matrix Spike Duplicate

Reviewed by: 6/4/13

Project Name : Tyrone Property, 7600 Tyrone Ave., Van Nuys, CA

II. Laboratory Control Check Sample (LCS)

DATE ANALYZED: 06/04/13
BATCH No. 053013

ANALYTICAL METHOD: USEPA 600/SR-94/112
UNIT: mg/kg USEPA 8082

PARAMETERS		TRUE CONC	LCS RESULT	% RC	LCSD RESULT	% RC	ACCEPTANCE LIMITS (%)
PCB - 1242		25.0	19.6	78	NA	NA	80 - 120
PCB - 1260		25.0	21.9	88	NA	NA	80 - 120

Note: Low LCS recovery for 1242 (78%). Although LCS is 2% below acceptance limit, it should have no significant effect on the quality of this batch of analyses.

%RC - Percent Recovery
NA - Not Analyzed
Batch - ten samples per batch

Reviewed by: AK 6/4/13

ATTACHMENT #6

PESTICIDES

EPA METHOD 8081

ATTACHMENT #7

Semi Volatile Organic Compounds
(SVOCs)

EPA METHOD 8270C

CERTIFICATE OF ANALYSIS

Client:	LADWP - Environmental Laboratory 1630 North Main Street, Bldg. 7, Rm 311 Los Angeles, CA 90012	**Report Date:**	06/05/13 16:04
		Received Date:	05/30/13 09:50
		Turn Around:	5 workdays
Attention:	Kevin Han	**Work Order #:**	3E30014
Phone:	213-367-7267		49067-3, COC #13-1321,26
Fax:	(213) 367-7285	**Client Project:**	7600 Tyrone Ave,COC #13-1321,26, WO#

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Kevin Han :

Enclosed are the results of analyses for samples received 05/30/13 09:50 with the Chain of Custody document. The samples were received in good condition, at 2.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Kim G Tu
Project Manager

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
LN06205	Client		3E30014-01	Solid	05/28/13 08:08
LN06207	Client		3E30014-02	Solid	05/28/13 08:04
LN06214	Client		3E30014-03	Solid	05/28/13 08:50
LN06216	Client		3E30014-04	Solid	05/28/13 08:54
LN06217	Client		3E30014-05	Solid	05/28/13 09:00
LN06219	Client		3E30014-06	Solid	05/28/13 09:04
LN06229	Client		3E30014-07	Solid	05/28/13 09:40
LN06231	Client		3E30014-08	Solid	05/28/13 09:44
LN06241	Client		3E30014-09	Solid	05/28/13 10:20
LN06243	Client		3E30014-10	Solid	05/28/13 10:24
LN06259	Client		3E30014-11	Solid	05/28/13 11:30
LN06261	Client		3E30014-12	Solid	05/28/13 11:34
LN06329	Client		3E30014-13	Solid	05/29/13 08:30
LN06331	Client		3E30014-14	Solid	05/29/13 08:34
LN06335	Client		3E30014-15	Solid	05/29/13 09:00
LN06337	Client		3E30014-16	Solid	05/29/13 09:04
LN06338	Client		3E30014-17	Solid	05/29/13 09:08
LN06340	Client		3E30014-18	Solid	05/29/13 09:10
LN06341	Client		3E30014-19	Solid	05/29/13 09:30
LN06343	Client		3E30014-20	Solid	05/29/13 09:34

ANALYSES

Semivolatile Organic Compounds by GC/MS

800002

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-01 **LN06205**

Sampled: 05/28/13 08:08 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 16:04 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.085	0.47	0.47	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.47	0.47	mg/kg	1	
1,3-Dichlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.47	0.47	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.47	0.47	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	23	23	mg/kg	1	
2,4-Dinitrotoluene	ND	0.094	0.47	0.47	mg/kg	1	
2,6-Dinitrotoluene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chloronaphthalene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chlorophenol	ND	0.094	0.47	0.47	mg/kg	1	
2-Methylnaphthalene	ND	0.085	0.47	0.47	mg/kg	1	
2-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
2-Nitrophenol	ND	0.21	0.47	0.47	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.3	2.3	mg/kg	1	
3-Nitroaniline	ND	0.14	0.47	0.47	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.7	4.7	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.066	0.47	0.47	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.47	0.47	mg/kg	1	
4-Chloroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.085	0.47	0.47	mg/kg	1	
4-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Nitrophenol	ND	0.14	0.47	0.47	mg/kg	1	
Acenaphthene	ND	0.085	0.47	0.47	mg/kg	1	
Acenaphthylene	ND	0.085	0.47	0.47	mg/kg	1	
Aniline	ND	0.22	0.47	0.47	mg/kg	1	
Anthracene	ND	0.075	0.47	0.47	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.094	0.47	0.47	mg/kg	1	
Benzidine	ND	1.2	4.7	4.7	mg/kg	1	
Benzo (a) anthracene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (a) pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Benzo (b) fluoranthene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (g,h,i) perylene	**0.10**	0.056	0.94	0.94	mg/kg	1	J
Benzo (k) fluoranthene	ND	0.12	0.47	0.47	mg/kg	1	
Benzoic acid	ND	1.8	23	23	mg/kg	1	
Benzyl alcohol	ND	0.13	0.47	0.47	mg/kg	1	

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-01 **LN06205**

Sampled: 05/28/13 08:08
Sampled By: Client
Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 16:04 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.085	0.47	0.47	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.47	0.47	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.47	0.47	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.47	0.47	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.47	0.47	mg/kg	1	
Carbazole	ND	0.085	0.47	0.47	mg/kg	1	
Chrysene	ND	0.085	0.47	0.47	mg/kg	1	
Dibenzo (a,h) anthracene	**0.099**	0.047	0.94	0.94	mg/kg	1	J
Dibenzofuran	ND	0.085	0.47	0.47	mg/kg	1	
Diethyl phthalate	ND	0.056	0.47	0.47	mg/kg	1	
Dimethyl phthalate	ND	0.83	2.3	2.3	mg/kg	1	
Di-n-butyl phthalate	ND	0.075	0.47	0.47	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.47	0.47	mg/kg	1	
Fluoranthene	ND	0.10	0.47	0.47	mg/kg	1	
Fluorene	ND	0.066	0.47	0.47	mg/kg	1	
Hexachlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
Hexachlorobutadiene	ND	0.085	0.47	0.47	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.47	0.47	mg/kg	1	
Hexachloroethane	ND	0.066	0.47	0.47	mg/kg	1	
Indeno (1,2,3-cd) pyrene	**0.15**	0.085	0.94	0.94	mg/kg	1	J
Isophorone	ND	0.094	0.47	0.47	mg/kg	1	
Naphthalene	ND	0.10	0.47	0.47	mg/kg	1	
Nitrobenzene	ND	0.10	0.47	0.47	mg/kg	1	
N-Nitrosodimethylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.066	0.47	0.47	mg/kg	1	
Pentachlorophenol	**0.39**	0.15	0.47	0.47	mg/kg	1	J
Phenanthrene	ND	0.075	0.47	0.47	mg/kg	1	
Phenol	ND	0.14	0.47	0.47	mg/kg	1	
Pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Pyridine	ND	0.047	0.94	0.94	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*70 %*	Conc:*33.0*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*75 %*	Conc:*17.7*		*39-100*	%		
Surr: 2-Fluorophenol	*93 %*	Conc:*43.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*79 %*	Conc:*18.5*		*49-105*	%		
Surr: Phenol-d5	*87 %*	Conc:*40.7*		*36-105*	%		
Surr: Terphenyl-d14	*96 %*	Conc:*22.5*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-02 LN06207

Sampled: 05/28/13 08:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/04/13 16:34 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.085	0.47	0.47	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.47	0.47	mg/kg	1	
1,3-Dichlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.47	0.47	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.47	0.47	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	24	24	mg/kg	1	
2,4-Dinitrotoluene	ND	0.094	0.47	0.47	mg/kg	1	
2,6-Dinitrotoluene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chloronaphthalene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chlorophenol	ND	0.094	0.47	0.47	mg/kg	1	
2-Methylnaphthalene	ND	0.085	0.47	0.47	mg/kg	1	
2-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
2-Nitrophenol	ND	0.21	0.47	0.47	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.4	2.4	mg/kg	1	
3-Nitroaniline	ND	0.14	0.47	0.47	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.7	4.7	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.066	0.47	0.47	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.47	0.47	mg/kg	1	
4-Chloroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.085	0.47	0.47	mg/kg	1	
4-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Nitrophenol	ND	0.14	0.47	0.47	mg/kg	1	
Acenaphthene	ND	0.085	0.47	0.47	mg/kg	1	
Acenaphthylene	ND	0.085	0.47	0.47	mg/kg	1	
Aniline	ND	0.22	0.47	0.47	mg/kg	1	
Anthracene	ND	0.075	0.47	0.47	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.094	0.47	0.47	mg/kg	1	
Benzidine	ND	1.2	4.7	4.7	mg/kg	1	
Benzo (a) anthracene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (a) pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Benzo (b) fluoranthene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.057	0.94	0.94	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.47	0.47	mg/kg	1	
Benzoic acid	ND	1.8	24	24	mg/kg	1	
Benzyl alcohol	ND	0.13	0.47	0.47	mg/kg	1	

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-02 **LN06207**

Sampled: 05/28/13 08:04
Sampled By: Client
Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 16:34 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.085	0.47	0.47	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.47	0.47	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.47	0.47	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.47	0.47	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.47	0.47	mg/kg	1	
Carbazole	ND	0.085	0.47	0.47	mg/kg	1	
Chrysene	ND	0.085	0.47	0.47	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.047	0.94	0.94	mg/kg	1	
Dibenzofuran	ND	0.085	0.47	0.47	mg/kg	1	
Diethyl phthalate	ND	0.057	0.47	0.47	mg/kg	1	
Dimethyl phthalate	ND	0.83	2.4	2.4	mg/kg	1	
Di-n-butyl phthalate	ND	0.075	0.47	0.47	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.47	0.47	mg/kg	1	
Fluoranthene	ND	0.10	0.47	0.47	mg/kg	1	
Fluorene	ND	0.066	0.47	0.47	mg/kg	1	
Hexachlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
Hexachlorobutadiene	ND	0.085	0.47	0.47	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.47	0.47	mg/kg	1	
Hexachloroethane	ND	0.066	0.47	0.47	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.085	0.94	0.94	mg/kg	1	
Isophorone	ND	0.094	0.47	0.47	mg/kg	1	
Naphthalene	ND	0.10	0.47	0.47	mg/kg	1	
Nitrobenzene	ND	0.10	0.47	0.47	mg/kg	1	
N-Nitrosodimethylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.066	0.47	0.47	mg/kg	1	
Pentachlorophenol	ND	0.15	0.47	0.47	mg/kg	1	
Phenanthrene	ND	0.075	0.47	0.47	mg/kg	1	
Phenol	ND	0.14	0.47	0.47	mg/kg	1	
Pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Pyridine	ND	0.047	0.94	0.94	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*58 %*	Conc:27.2		*40-97*	%		
Surr: 2-Fluorobiphenyl	*64 %*	Conc:*15.2*		*39-100*	%		
Surr: 2-Fluorophenol	*73 %*	Conc:*34.2*		*26-115*	%		
Surr: Nitrobenzene-d5	*67 %*	Conc:*15.8*		*49-105*	%		
Surr: Phenol-d5	*72 %*	Conc:*33.8*		*36-105*	%		
Surr: Terphenyl-d14	*73 %*	Conc:*17.3*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-03 **LN06214**

Sampled: 05/28/13 08:50 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 20:08 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.089	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.079	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.099	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.079	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.079	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.099	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.089	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.089	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.089	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.089	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.079	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.099	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.079	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.99	0.99	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

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800007

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-03 LN06214

Sampled: 05/28/13 08:50

Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/04/13 20:08 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.089	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.49	0.49	mg/kg	1	
Carbazole	ND	0.089	0.49	0.49	mg/kg	1	
Chrysene	ND	0.089	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.99	0.99	mg/kg	1	
Dibenzofuran	ND	0.089	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.87	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.079	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.079	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.089	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.089	0.99	0.99	mg/kg	1	
Isophorone	ND	0.099	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.089	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.089	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.079	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.079	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.99	0.99	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*62 %*	Conc:*30.4*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*69 %*	Conc:*17.1*		*39-100*	%		
Surr: 2-Fluorophenol	*79 %*	Conc:*38.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*70 %*	Conc:*17.3*		*49-105*	%		
Surr: Phenol-d5	*76 %*	Conc:*37.5*		*36-105*	%		
Surr: Terphenyl-d14	*81 %*	Conc:*20.1*		*36-106*	%		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-04 **LN06216**

Sampled: 05/28/13 08:54 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 20:38 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.088	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.098	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.098	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.088	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.088	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.088	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.088	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.078	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.098	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.98	0.98	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-04 LN06216

Sampled: 05/28/13 08:54 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/04/13 20:38 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.088	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.49	0.49	mg/kg	1	
Carbazole	ND	0.088	0.49	0.49	mg/kg	1	
Chrysene	ND	0.088	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.98	0.98	mg/kg	1	
Dibenzofuran	ND	0.088	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.86	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.078	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.088	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.088	0.98	0.98	mg/kg	1	
Isophorone	ND	0.098	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.078	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.98	0.98	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*52 %*	Conc:*25.5*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*63 %*	Conc:*15.4*		*39-100*	%		
Surr: 2-Fluorophenol	*71 %*	Conc:*35.0*		*26-115*	%		
Surr: Nitrobenzene-d5	*65 %*	Conc:*16.0*		*49-105*	%		
Surr: Phenol-d5	*70 %*	Conc:*34.3*		*36-105*	%		
Surr: Terphenyl-d14	*72 %*	Conc:*17.6*		*36-106*	%		

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-05 **LN06217**

Sampled: 05/28/13 09:00 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 21:08 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.089	0.50	0.50	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.50	0.50	mg/kg	1	
1,3-Dichlorobenzene	ND	0.079	0.50	0.50	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.50	0.50	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.50	0.50	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2,4-Dinitrophenol	ND	3.8	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.099	0.50	0.50	mg/kg	1	
2,6-Dinitrotoluene	ND	0.079	0.50	0.50	mg/kg	1	
2-Chloronaphthalene	ND	0.079	0.50	0.50	mg/kg	1	
2-Chlorophenol	ND	0.099	0.50	0.50	mg/kg	1	
2-Methylnaphthalene	ND	0.089	0.50	0.50	mg/kg	1	
2-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
2-Nitrophenol	ND	0.22	0.50	0.50	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.50	0.50	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	5.0	5.0	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.50	0.50	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.50	0.50	mg/kg	1	
4-Chloroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.089	0.50	0.50	mg/kg	1	
4-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Nitrophenol	ND	0.15	0.50	0.50	mg/kg	1	
Acenaphthene	ND	0.089	0.50	0.50	mg/kg	1	
Acenaphthylene	ND	0.089	0.50	0.50	mg/kg	1	
Aniline	ND	0.23	0.50	0.50	mg/kg	1	
Anthracene	ND	0.079	0.50	0.50	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.099	0.50	0.50	mg/kg	1	
Benzidine	ND	1.2	5.0	5.0	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.50	0.50	mg/kg	1	
Benzo (a) pyrene	ND	0.079	0.50	0.50	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.50	0.50	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.99	0.99	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.50	0.50	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.50	0.50	mg/kg	1	

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-05 **LN06217**

Sampled: 05/28/13 09:00 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/04/13 21:08 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.089	0.50	0.50	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.50	0.50	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.50	0.50	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.50	0.50	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.50	0.50	mg/kg	1	
Carbazole	ND	0.089	0.50	0.50	mg/kg	1	
Chrysene	ND	0.089	0.50	0.50	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.050	0.99	0.99	mg/kg	1	
Dibenzofuran	ND	0.089	0.50	0.50	mg/kg	1	
Diethyl phthalate	ND	0.059	0.50	0.50	mg/kg	1	
Dimethyl phthalate	ND	0.87	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.079	0.50	0.50	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.50	0.50	mg/kg	1	
Fluoranthene	ND	0.11	0.50	0.50	mg/kg	1	
Fluorene	ND	0.069	0.50	0.50	mg/kg	1	
Hexachlorobenzene	ND	0.079	0.50	0.50	mg/kg	1	
Hexachlorobutadiene	ND	0.089	0.50	0.50	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.50	0.50	mg/kg	1	
Hexachloroethane	ND	0.069	0.50	0.50	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.089	0.99	0.99	mg/kg	1	
Isophorone	ND	0.099	0.50	0.50	mg/kg	1	
Naphthalene	ND	0.11	0.50	0.50	mg/kg	1	
Nitrobenzene	ND	0.11	0.50	0.50	mg/kg	1	
N-Nitrosodimethylamine	ND	0.089	0.50	0.50	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.089	0.50	0.50	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.50	0.50	mg/kg	1	
Pentachlorophenol	ND	0.16	0.50	0.50	mg/kg	1	
Phenanthrene	ND	0.079	0.50	0.50	mg/kg	1	
Phenol	ND	0.15	0.50	0.50	mg/kg	1	
Pyrene	ND	0.079	0.50	0.50	mg/kg	1	
Pyridine	ND	0.050	0.99	0.99	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*49 %*	Conc:*24.4*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*59 %*	Conc:*14.6*		*39-100*	%		
Surr: 2-Fluorophenol	*66 %*	Conc:*32.6*		*26-115*	%		
Surr: Nitrobenzene-d5	*61 %*	Conc:*15.1*		*49-105*	%		
Surr: Phenol-d5	*65 %*	Conc:*32.3*		*36-105*	%		
Surr: Terphenyl-d14	*62 %*	Conc:*15.3*		*36-106*	%		

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800012

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Sampled: 05/28/13 09:04

3E30014-06 LN06219

Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 21:39 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.080	0.45	0.45	mg/kg	1	
1,2-Dichlorobenzene	ND	0.098	0.45	0.45	mg/kg	1	
1,3-Dichlorobenzene	ND	0.071	0.45	0.45	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.45	0.45	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.098	0.45	0.45	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.098	0.45	0.45	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.45	0.45	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2,4-Dinitrophenol	ND	3.4	22	22	mg/kg	1	
2,4-Dinitrotoluene	ND	0.089	0.45	0.45	mg/kg	1	
2,6-Dinitrotoluene	ND	0.071	0.45	0.45	mg/kg	1	
2-Chloronaphthalene	ND	0.071	0.45	0.45	mg/kg	1	
2-Chlorophenol	ND	0.089	0.45	0.45	mg/kg	1	
2-Methylnaphthalene	ND	0.080	0.45	0.45	mg/kg	1	
2-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
2-Nitrophenol	ND	0.20	0.45	0.45	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.3	2.2	2.2	mg/kg	1	
3-Nitroaniline	ND	0.13	0.45	0.45	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.5	4.5	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.062	0.45	0.45	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.098	0.45	0.45	mg/kg	1	
4-Chloroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.080	0.45	0.45	mg/kg	1	
4-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Nitrophenol	ND	0.13	0.45	0.45	mg/kg	1	
Acenaphthene	ND	0.080	0.45	0.45	mg/kg	1	
Acenaphthylene	ND	0.080	0.45	0.45	mg/kg	1	
Aniline	ND	0.21	0.45	0.45	mg/kg	1	
Anthracene	ND	0.071	0.45	0.45	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.089	0.45	0.45	mg/kg	1	
Benzidine	ND	1.1	4.5	4.5	mg/kg	1	
Benzo (a) anthracene	ND	0.062	0.45	0.45	mg/kg	1	
Benzo (a) pyrene	ND	0.071	0.45	0.45	mg/kg	1	
Benzo (b) fluoranthene	ND	0.062	0.45	0.45	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.054	0.89	0.89	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.45	0.45	mg/kg	1	
Benzoic acid	ND	1.7	22	22	mg/kg	1	
Benzyl alcohol	ND	0.12	0.45	0.45	mg/kg	1	

800013

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-06 **LN06219**

Sampled: 05/28/13 09:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 21:39 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.080	0.45	0.45	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.098	0.45	0.45	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.12	0.45	0.45	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.45	0.45	mg/kg	1	
Butyl benzyl phthalate	ND	0.13	0.45	0.45	mg/kg	1	
Carbazole	ND	0.080	0.45	0.45	mg/kg	1	
Chrysene	ND	0.080	0.45	0.45	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.045	0.89	0.89	mg/kg	1	
Dibenzofuran	ND	0.080	0.45	0.45	mg/kg	1	
Diethyl phthalate	ND	0.054	0.45	0.45	mg/kg	1	
Dimethyl phthalate	ND	0.79	2.2	2.2	mg/kg	1	
Di-n-butyl phthalate	ND	0.071	0.45	0.45	mg/kg	1	
Di-n-octyl phthalate	ND	0.12	0.45	0.45	mg/kg	1	
Fluoranthene	ND	0.098	0.45	0.45	mg/kg	1	
Fluorene	ND	0.062	0.45	0.45	mg/kg	1	
Hexachlorobenzene	ND	0.071	0.45	0.45	mg/kg	1	
Hexachlorobutadiene	ND	0.080	0.45	0.45	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.45	0.45	mg/kg	1	
Hexachloroethane	ND	0.062	0.45	0.45	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.080	0.89	0.89	mg/kg	1	
Isophorone	ND	0.089	0.45	0.45	mg/kg	1	
Naphthalene	ND	0.098	0.45	0.45	mg/kg	1	
Nitrobenzene	ND	0.098	0.45	0.45	mg/kg	1	
N-Nitrosodimethylamine	ND	0.080	0.45	0.45	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.080	0.45	0.45	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.062	0.45	0.45	mg/kg	1	
Pentachlorophenol	ND	0.14	0.45	0.45	mg/kg	1	
Phenanthrene	ND	0.071	0.45	0.45	mg/kg	1	
Phenol	ND	0.13	0.45	0.45	mg/kg	1	
Pyrene	ND	0.071	0.45	0.45	mg/kg	1	
Pyridine	ND	0.045	0.89	0.89	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*51 %*	Conc:*22.8*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*64 %*	Conc:*14.3*		*39-100*	%		
Surr: 2-Fluorophenol	*73 %*	Conc:*32.8*		*26-115*	%		
Surr: Nitrobenzene-d5	*67 %*	Conc:*14.9*		*49-105*	%		
Surr: Phenol-d5	*71 %*	Conc:*31.9*		*36-105*	%		
Surr: Terphenyl-d14	*74 %*	Conc:*16.5*		*36-106*	%		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-07 LN06229

Sampled: 05/28/13 09:40 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/04/13 22:09 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.085	0.47	0.47	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.47	0.47	mg/kg	1	
1,3-Dichlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.47	0.47	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.47	0.47	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	23	23	mg/kg	1	
2,4-Dinitrotoluene	ND	0.094	0.47	0.47	mg/kg	1	
2,6-Dinitrotoluene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chloronaphthalene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chlorophenol	ND	0.094	0.47	0.47	mg/kg	1	
2-Methylnaphthalene	ND	0.085	0.47	0.47	mg/kg	1	
2-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
2-Nitrophenol	ND	0.21	0.47	0.47	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.3	2.3	mg/kg	1	
3-Nitroaniline	ND	0.14	0.47	0.47	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.7	4.7	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.066	0.47	0.47	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.47	0.47	mg/kg	1	
4-Chloroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.085	0.47	0.47	mg/kg	1	
4-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Nitrophenol	ND	0.14	0.47	0.47	mg/kg	1	
Acenaphthene	ND	0.085	0.47	0.47	mg/kg	1	
Acenaphthylene	ND	0.085	0.47	0.47	mg/kg	1	
Aniline	ND	0.22	0.47	0.47	mg/kg	1	
Anthracene	ND	0.075	0.47	0.47	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.094	0.47	0.47	mg/kg	1	
Benzidine	ND	1.2	4.7	4.7	mg/kg	1	
Benzo (a) anthracene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (a) pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Benzo (b) fluoranthene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.056	0.94	0.94	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.47	0.47	mg/kg	1	
Benzoic acid	ND	1.8	23	23	mg/kg	1	
Benzyl alcohol	ND	0.13	0.47	0.47	mg/kg	1	

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-07 LN06229

Sampled: 05/28/13 09:40
Sampled By: Client
Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 22:09 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.085	0.47	0.47	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.47	0.47	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.47	0.47	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.47	0.47	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.47	0.47	mg/kg	1	
Carbazole	ND	0.085	0.47	0.47	mg/kg	1	
Chrysene	ND	0.085	0.47	0.47	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.047	0.94	0.94	mg/kg	1	
Dibenzofuran	ND	0.085	0.47	0.47	mg/kg	1	
Diethyl phthalate	ND	0.056	0.47	0.47	mg/kg	1	
Dimethyl phthalate	ND	0.83	2.3	2.3	mg/kg	1	
Di-n-butyl phthalate	ND	0.075	0.47	0.47	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.47	0.47	mg/kg	1	
Fluoranthene	ND	0.10	0.47	0.47	mg/kg	1	
Fluorene	ND	0.066	0.47	0.47	mg/kg	1	
Hexachlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
Hexachlorobutadiene	ND	0.085	0.47	0.47	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.47	0.47	mg/kg	1	
Hexachloroethane	ND	0.066	0.47	0.47	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.085	0.94	0.94	mg/kg	1	
Isophorone	ND	0.094	0.47	0.47	mg/kg	1	
Naphthalene	ND	0.10	0.47	0.47	mg/kg	1	
Nitrobenzene	ND	0.10	0.47	0.47	mg/kg	1	
N-Nitrosodimethylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.066	0.47	0.47	mg/kg	1	
Pentachlorophenol	ND	0.15	0.47	0.47	mg/kg	1	
Phenanthrene	ND	0.075	0.47	0.47	mg/kg	1	
Phenol	ND	0.14	0.47	0.47	mg/kg	1	
Pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Pyridine	ND	0.047	0.94	0.94	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*46 %*	Conc:*21.5*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*57 %*	Conc:*13.4*		*39-100*	%		
Surr: 2-Fluorophenol	*62 %*	Conc:*29.0*		*26-115*	%		
Surr: Nitrobenzene-d5	*58 %*	Conc:*13.7*		*49-105*	%		
Surr: Phenol-d5	*61 %*	Conc:*28.8*		*36-105*	%		
Surr: Terphenyl-d14	*82 %*	Conc:*19.2*		*36-106*	%		

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Sampled: 05/28/13 09:44

3E30014-08 **LN06231**

Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 22:39 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.077	0.43	0.43	mg/kg	1	
1,2-Dichlorobenzene	ND	0.094	0.43	0.43	mg/kg	1	
1,3-Dichlorobenzene	ND	0.068	0.43	0.43	mg/kg	1	
1,4-Dichlorobenzene	ND	0.10	0.43	0.43	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.094	0.43	0.43	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.094	0.43	0.43	mg/kg	1	
2,4-Dichlorophenol	ND	0.11	0.43	0.43	mg/kg	1	
2,4-Dimethylphenol	ND	0.10	0.43	0.43	mg/kg	1	
2,4-Dinitrophenol	ND	3.2	21	21	mg/kg	1	
2,4-Dinitrotoluene	ND	0.085	0.43	0.43	mg/kg	1	
2,6-Dinitrotoluene	ND	0.068	0.43	0.43	mg/kg	1	
2-Chloronaphthalene	ND	0.068	0.43	0.43	mg/kg	1	
2-Chlorophenol	ND	0.085	0.43	0.43	mg/kg	1	
2-Methylnaphthalene	ND	0.077	0.43	0.43	mg/kg	1	
2-Methylphenol	ND	0.10	0.43	0.43	mg/kg	1	
2-Nitroaniline	ND	0.11	0.43	0.43	mg/kg	1	
2-Nitrophenol	ND	0.19	0.43	0.43	mg/kg	1	
3 & 4-Methylphenol	ND	0.10	0.43	0.43	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.3	2.1	2.1	mg/kg	1	
3-Nitroaniline	ND	0.13	0.43	0.43	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.3	4.3	4.3	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.060	0.43	0.43	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.094	0.43	0.43	mg/kg	1	
4-Chloroaniline	ND	0.11	0.43	0.43	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.077	0.43	0.43	mg/kg	1	
4-Nitroaniline	ND	0.11	0.43	0.43	mg/kg	1	
4-Nitrophenol	ND	0.13	0.43	0.43	mg/kg	1	
Acenaphthene	ND	0.077	0.43	0.43	mg/kg	1	
Acenaphthylene	ND	0.077	0.43	0.43	mg/kg	1	
Aniline	ND	0.20	0.43	0.43	mg/kg	1	
Anthracene	ND	0.068	0.43	0.43	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.085	0.43	0.43	mg/kg	1	
Benzidine	ND	1.1	4.3	4.3	mg/kg	1	
Benzo (a) anthracene	ND	0.060	0.43	0.43	mg/kg	1	
Benzo (a) pyrene	ND	0.068	0.43	0.43	mg/kg	1	
Benzo (b) fluoranthene	ND	0.060	0.43	0.43	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.051	0.85	0.85	mg/kg	1	
Benzo (k) fluoranthene	ND	0.11	0.43	0.43	mg/kg	1	
Benzoic acid	ND	1.6	21	21	mg/kg	1	
Benzyl alcohol	ND	0.12	0.43	0.43	mg/kg	1	

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-08 LN06231

Sampled: 05/28/13 09:44

Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 22:39 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.077	0.43	0.43	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.094	0.43	0.43	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.12	0.43	0.43	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.10	0.43	0.43	mg/kg	1	
Butyl benzyl phthalate	ND	0.13	0.43	0.43	mg/kg	1	
Carbazole	ND	0.077	0.43	0.43	mg/kg	1	
Chrysene	ND	0.077	0.43	0.43	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.043	0.85	0.85	mg/kg	1	
Dibenzofuran	ND	0.077	0.43	0.43	mg/kg	1	
Diethyl phthalate	ND	0.051	0.43	0.43	mg/kg	1	
Dimethyl phthalate	ND	0.75	2.1	2.1	mg/kg	1	
Di-n-butyl phthalate	ND	0.068	0.43	0.43	mg/kg	1	
Di-n-octyl phthalate	ND	0.12	0.43	0.43	mg/kg	1	
Fluoranthene	ND	0.094	0.43	0.43	mg/kg	1	
Fluorene	ND	0.060	0.43	0.43	mg/kg	1	
Hexachlorobenzene	ND	0.068	0.43	0.43	mg/kg	1	
Hexachlorobutadiene	ND	0.077	0.43	0.43	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.10	0.43	0.43	mg/kg	1	
Hexachloroethane	ND	0.060	0.43	0.43	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.077	0.85	0.85	mg/kg	1	
Isophorone	ND	0.085	0.43	0.43	mg/kg	1	
Naphthalene	ND	0.094	0.43	0.43	mg/kg	1	
Nitrobenzene	ND	0.094	0.43	0.43	mg/kg	1	
N-Nitrosodimethylamine	ND	0.077	0.43	0.43	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.077	0.43	0.43	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.060	0.43	0.43	mg/kg	1	
Pentachlorophenol	ND	0.14	0.43	0.43	mg/kg	1	
Phenanthrene	ND	0.068	0.43	0.43	mg/kg	1	
Phenol	ND	0.13	0.43	0.43	mg/kg	1	
Pyrene	ND	0.068	0.43	0.43	mg/kg	1	
Pyridine	ND	0.043	0.85	0.85	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*55 %*	Conc:*23.2*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*66 %*	Conc:*14.0*		*39-100*	%		
Surr: 2-Fluorophenol	*78 %*	Conc:*33.3*		*26-115*	%		
Surr: Nitrobenzene-d5	*69 %*	Conc:*14.6*		*49-105*	%		
Surr: Phenol-d5	*76 %*	Conc:*32.5*		*36-105*	%		
Surr: Terphenyl-d14	*76 %*	Conc:*16.3*		*36-106*	%		

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Sampled: 05/28/13 10:20

3E30014-09 **LN06241**

Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 23:10 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.089	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.079	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.099	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.079	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.079	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.099	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.089	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.089	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.089	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.089	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.079	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.099	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.079	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	**0.12**	0.059	0.99	0.99	mg/kg	1	J
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

800019

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Sampled: 05/28/13 10:20

3E30014-09 **LN06241**
Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 23:10 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.089	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.49	0.49	mg/kg	1	
Carbazole	ND	0.089	0.49	0.49	mg/kg	1	
Chrysene	ND	0.089	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.99	0.99	mg/kg	1	
Dibenzofuran	ND	0.089	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.87	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.079	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.079	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.089	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	**0.17**	0.089	0.99	0.99	mg/kg	1	J
Isophorone	ND	0.099	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.089	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.089	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.079	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.079	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.99	0.99	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*52 %*	Conc:*25.5*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*62 %*	Conc:*15.3*		*39-100*	%		
Surr: 2-Fluorophenol	*74 %*	Conc:*36.3*		*26-115*	%		
Surr: Nitrobenzene-d5	*67 %*	Conc:*16.4*		*49-105*	%		
Surr: Phenol-d5	*71 %*	Conc:*35.2*		*36-105*	%		
Surr: Terphenyl-d14	*68 %*	Conc:*16.6*		*36-106*	%		

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800020

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Sampled: 05/28/13 10:24

3E30014-10 **LN06243**

Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C
Batch: W3F0001
Prepared: 06/01/13 09:40
Analyzed: 06/04/13 23:40
Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.080	0.45	0.45	mg/kg	1	
1,2-Dichlorobenzene	ND	0.098	0.45	0.45	mg/kg	1	
1,3-Dichlorobenzene	ND	0.071	0.45	0.45	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.45	0.45	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.098	0.45	0.45	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.098	0.45	0.45	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.45	0.45	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2,4-Dinitrophenol	ND	3.4	22	22	mg/kg	1	
2,4-Dinitrotoluene	ND	0.089	0.45	0.45	mg/kg	1	
2,6-Dinitrotoluene	ND	0.071	0.45	0.45	mg/kg	1	
2-Chloronaphthalene	ND	0.071	0.45	0.45	mg/kg	1	
2-Chlorophenol	ND	0.089	0.45	0.45	mg/kg	1	
2-Methylnaphthalene	ND	0.080	0.45	0.45	mg/kg	1	
2-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
2-Nitrophenol	ND	0.20	0.45	0.45	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.3	2.2	2.2	mg/kg	1	
3-Nitroaniline	ND	0.13	0.45	0.45	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.5	4.5	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.062	0.45	0.45	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.098	0.45	0.45	mg/kg	1	
4-Chloroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.080	0.45	0.45	mg/kg	1	
4-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Nitrophenol	ND	0.13	0.45	0.45	mg/kg	1	
Acenaphthene	ND	0.080	0.45	0.45	mg/kg	1	
Acenaphthylene	ND	0.080	0.45	0.45	mg/kg	1	
Aniline	ND	0.21	0.45	0.45	mg/kg	1	
Anthracene	ND	0.071	0.45	0.45	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.089	0.45	0.45	mg/kg	1	
Benzidine	ND	1.1	4.5	4.5	mg/kg	1	
Benzo (a) anthracene	ND	0.062	0.45	0.45	mg/kg	1	
Benzo (a) pyrene	ND	0.071	0.45	0.45	mg/kg	1	
Benzo (b) fluoranthene	ND	0.062	0.45	0.45	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.054	0.89	0.89	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.45	0.45	mg/kg	1	
Benzoic acid	ND	1.7	22	22	mg/kg	1	
Benzyl alcohol	ND	0.12	0.45	0.45	mg/kg	1	

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-10 **LN06243**

Sampled: 05/28/13 10:24
Sampled By: Client
Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 23:40 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.080	0.45	0.45	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.098	0.45	0.45	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.12	0.45	0.45	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.45	0.45	mg/kg	1	
Butyl benzyl phthalate	ND	0.13	0.45	0.45	mg/kg	1	
Carbazole	ND	0.080	0.45	0.45	mg/kg	1	
Chrysene	ND	0.080	0.45	0.45	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.045	0.89	0.89	mg/kg	1	
Dibenzofuran	ND	0.080	0.45	0.45	mg/kg	1	
Diethyl phthalate	ND	0.054	0.45	0.45	mg/kg	1	
Dimethyl phthalate	ND	0.79	2.2	2.2	mg/kg	1	
Di-n-butyl phthalate	ND	0.071	0.45	0.45	mg/kg	1	
Di-n-octyl phthalate	ND	0.12	0.45	0.45	mg/kg	1	
Fluoranthene	ND	0.098	0.45	0.45	mg/kg	1	
Fluorene	ND	0.062	0.45	0.45	mg/kg	1	
Hexachlorobenzene	ND	0.071	0.45	0.45	mg/kg	1	
Hexachlorobutadiene	ND	0.080	0.45	0.45	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.45	0.45	mg/kg	1	
Hexachloroethane	ND	0.062	0.45	0.45	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.080	0.89	0.89	mg/kg	1	
Isophorone	ND	0.089	0.45	0.45	mg/kg	1	
Naphthalene	ND	0.098	0.45	0.45	mg/kg	1	
Nitrobenzene	ND	0.098	0.45	0.45	mg/kg	1	
N-Nitrosodimethylamine	ND	0.080	0.45	0.45	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.080	0.45	0.45	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.062	0.45	0.45	mg/kg	1	
Pentachlorophenol	ND	0.14	0.45	0.45	mg/kg	1	
Phenanthrene	ND	0.071	0.45	0.45	mg/kg	1	
Phenol	ND	0.13	0.45	0.45	mg/kg	1	
Pyrene	ND	0.071	0.45	0.45	mg/kg	1	
Pyridine	ND	0.045	0.89	0.89	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*61 %*	Conc:*27.4*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*70 %*	Conc:*15.7*		*39-100*	%		
Surr: 2-Fluorophenol	*82 %*	Conc:*36.6*		*26-115*	%		
Surr: Nitrobenzene-d5	*74 %*	Conc:*16.5*		*49-105*	%		
Surr: Phenol-d5	*78 %*	Conc:*34.8*		*36-105*	%		
Surr: Terphenyl-d14	*79 %*	Conc:*17.6*		*36-106*	%		

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Sampled: 05/28/13 11:30

3E30014-11 **LN06259**

Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C
Batch: W3F0001
Prepared: 06/01/13 09:40
Analyzed: 06/05/13 00:11
Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.083	0.46	0.46	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.46	0.46	mg/kg	1	
1,3-Dichlorobenzene	ND	0.074	0.46	0.46	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.46	0.46	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.46	0.46	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.46	0.46	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.46	0.46	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.46	0.46	mg/kg	1	
2,4-Dinitrophenol	ND	3.5	23	23	mg/kg	1	
2,4-Dinitrotoluene	ND	0.092	0.46	0.46	mg/kg	1	
2,6-Dinitrotoluene	ND	0.074	0.46	0.46	mg/kg	1	
2-Chloronaphthalene	ND	0.074	0.46	0.46	mg/kg	1	
2-Chlorophenol	ND	0.092	0.46	0.46	mg/kg	1	
2-Methylnaphthalene	ND	0.083	0.46	0.46	mg/kg	1	
2-Methylphenol	ND	0.11	0.46	0.46	mg/kg	1	
2-Nitroaniline	ND	0.12	0.46	0.46	mg/kg	1	
2-Nitrophenol	ND	0.20	0.46	0.46	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.46	0.46	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.3	2.3	mg/kg	1	
3-Nitroaniline	ND	0.14	0.46	0.46	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.6	4.6	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.065	0.46	0.46	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.46	0.46	mg/kg	1	
4-Chloroaniline	ND	0.12	0.46	0.46	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.083	0.46	0.46	mg/kg	1	
4-Nitroaniline	ND	0.12	0.46	0.46	mg/kg	1	
4-Nitrophenol	ND	0.14	0.46	0.46	mg/kg	1	
Acenaphthene	ND	0.083	0.46	0.46	mg/kg	1	
Acenaphthylene	ND	0.083	0.46	0.46	mg/kg	1	
Aniline	ND	0.21	0.46	0.46	mg/kg	1	
Anthracene	ND	0.074	0.46	0.46	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.092	0.46	0.46	mg/kg	1	
Benzidine	ND	1.2	4.6	4.6	mg/kg	1	
Benzo (a) anthracene	ND	0.065	0.46	0.46	mg/kg	1	
Benzo (a) pyrene	ND	0.074	0.46	0.46	mg/kg	1	
Benzo (b) fluoranthene	ND	0.065	0.46	0.46	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.055	0.92	0.92	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.46	0.46	mg/kg	1	
Benzoic acid	ND	1.8	23	23	mg/kg	1	
Benzyl alcohol	ND	0.13	0.46	0.46	mg/kg	1	

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800023

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Sampled: 05/28/13 11:30

3E30014-11 LN06259

Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C
Batch: W3F0001
Prepared: 06/01/13 09:40
Analyzed: 06/05/13 00:11
Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.083	0.46	0.46	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.46	0.46	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.46	0.46	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.46	0.46	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.46	0.46	mg/kg	1	
Carbazole	ND	0.083	0.46	0.46	mg/kg	1	
Chrysene	ND	0.083	0.46	0.46	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.046	0.92	0.92	mg/kg	1	
Dibenzofuran	ND	0.083	0.46	0.46	mg/kg	1	
Diethyl phthalate	ND	0.055	0.46	0.46	mg/kg	1	
Dimethyl phthalate	ND	0.81	2.3	2.3	mg/kg	1	
Di-n-butyl phthalate	ND	0.074	0.46	0.46	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.46	0.46	mg/kg	1	
Fluoranthene	ND	0.10	0.46	0.46	mg/kg	1	
Fluorene	ND	0.065	0.46	0.46	mg/kg	1	
Hexachlorobenzene	ND	0.074	0.46	0.46	mg/kg	1	
Hexachlorobutadiene	ND	0.083	0.46	0.46	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.46	0.46	mg/kg	1	
Hexachloroethane	ND	0.065	0.46	0.46	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.083	0.92	0.92	mg/kg	1	
Isophorone	ND	0.092	0.46	0.46	mg/kg	1	
Naphthalene	ND	0.10	0.46	0.46	mg/kg	1	
Nitrobenzene	ND	0.10	0.46	0.46	mg/kg	1	
N-Nitrosodimethylamine	ND	0.083	0.46	0.46	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.083	0.46	0.46	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.065	0.46	0.46	mg/kg	1	
Pentachlorophenol	ND	0.15	0.46	0.46	mg/kg	1	
Phenanthrene	ND	0.074	0.46	0.46	mg/kg	1	
Phenol	ND	0.14	0.46	0.46	mg/kg	1	
Pyrene	ND	0.074	0.46	0.46	mg/kg	1	
Pyridine	ND	0.046	0.92	0.92	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*56 %*	Conc:*25.8*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*69 %*	Conc:*15.9*		*39-100*	%		
Surr: 2-Fluorophenol	*82 %*	Conc:*37.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*72 %*	Conc:*16.5*		*49-105*	%		
Surr: Phenol-d5	*77 %*	Conc:*35.4*		*36-105*	%		
Surr: Terphenyl-d14	*75 %*	Conc:*17.4*		*36-106*	%		

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1630 North Main Street, Bldg. 7, Rm 311
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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Sampled: 05/28/13 11:34

3E30014-12 **LN06261**

Sampled By: Client

Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 00:41 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.085	0.47	0.47	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.47	0.47	mg/kg	1	
1,3-Dichlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.47	0.47	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.47	0.47	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	24	24	mg/kg	1	
2,4-Dinitrotoluene	ND	0.094	0.47	0.47	mg/kg	1	
2,6-Dinitrotoluene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chloronaphthalene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chlorophenol	ND	0.094	0.47	0.47	mg/kg	1	
2-Methylnaphthalene	ND	0.085	0.47	0.47	mg/kg	1	
2-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
2-Nitrophenol	ND	0.21	0.47	0.47	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.4	2.4	mg/kg	1	
3-Nitroaniline	ND	0.14	0.47	0.47	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.7	4.7	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.066	0.47	0.47	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.47	0.47	mg/kg	1	
4-Chloroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.085	0.47	0.47	mg/kg	1	
4-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Nitrophenol	ND	0.14	0.47	0.47	mg/kg	1	
Acenaphthene	ND	0.085	0.47	0.47	mg/kg	1	
Acenaphthylene	ND	0.085	0.47	0.47	mg/kg	1	
Aniline	ND	0.22	0.47	0.47	mg/kg	1	
Anthracene	ND	0.075	0.47	0.47	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.094	0.47	0.47	mg/kg	1	
Benzidine	ND	1.2	4.7	4.7	mg/kg	1	
Benzo (a) anthracene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (a) pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Benzo (b) fluoranthene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.057	0.94	0.94	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.47	0.47	mg/kg	1	
Benzoic acid	ND	1.8	24	24	mg/kg	1	
Benzyl alcohol	ND	0.13	0.47	0.47	mg/kg	1	

800025

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-12 **LN06261**

Sampled: 05/28/13 11:34
Sampled By: Client
Matrix: Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 00:41 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.085	0.47	0.47	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.47	0.47	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.47	0.47	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.47	0.47	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.47	0.47	mg/kg	1	
Carbazole	ND	0.085	0.47	0.47	mg/kg	1	
Chrysene	ND	0.085	0.47	0.47	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.047	0.94	0.94	mg/kg	1	
Dibenzofuran	ND	0.085	0.47	0.47	mg/kg	1	
Diethyl phthalate	ND	0.057	0.47	0.47	mg/kg	1	
Dimethyl phthalate	ND	0.83	2.4	2.4	mg/kg	1	
Di-n-butyl phthalate	ND	0.075	0.47	0.47	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.47	0.47	mg/kg	1	
Fluoranthene	ND	0.10	0.47	0.47	mg/kg	1	
Fluorene	ND	0.066	0.47	0.47	mg/kg	1	
Hexachlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
Hexachlorobutadiene	ND	0.085	0.47	0.47	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.47	0.47	mg/kg	1	
Hexachloroethane	ND	0.066	0.47	0.47	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.085	0.94	0.94	mg/kg	1	
Isophorone	ND	0.094	0.47	0.47	mg/kg	1	
Naphthalene	ND	0.10	0.47	0.47	mg/kg	1	
Nitrobenzene	ND	0.10	0.47	0.47	mg/kg	1	
N-Nitrosodimethylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.066	0.47	0.47	mg/kg	1	
Pentachlorophenol	ND	0.15	0.47	0.47	mg/kg	1	
Phenanthrene	ND	0.075	0.47	0.47	mg/kg	1	
Phenol	ND	0.14	0.47	0.47	mg/kg	1	
Pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Pyridine	ND	0.047	0.94	0.94	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*55 %*	Conc:*26.1*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*67 %*	Conc:*15.7*		*39-100*	%		
Surr: 2-Fluorophenol	*78 %*	Conc:*36.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*70 %*	Conc:*16.6*		*49-105*	%		
Surr: Phenol-d5	*75 %*	Conc:*35.5*		*36-105*	%		
Surr: Terphenyl-d14	*76 %*	Conc:*18.0*		*36-106*	%		

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000026

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

QUALITY CONTROL SECTION

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3F0001-BLK1)				Analyzed: 06/04/13 14:03						
1,2,4-Trichlorobenzene	ND	0.050	mg/kg							
1,2-Dichlorobenzene	ND	0.050	mg/kg							
1,3-Dichlorobenzene	ND	0.050	mg/kg							
1,4-Dichlorobenzene	ND	0.050	mg/kg							
2,4,5-Trichlorophenol	ND	0.050	mg/kg							
2,4,6-Trichlorophenol	ND	0.050	mg/kg							
2,4-Dichlorophenol	ND	0.050	mg/kg							
2,4-Dimethylphenol	ND	0.050	mg/kg							
2,4-Dinitrophenol	ND	2.5	mg/kg							
2,4-Dinitrotoluene	ND	0.050	mg/kg							
2,6-Dinitrotoluene	ND	0.050	mg/kg							
2-Chloronaphthalene	ND	0.050	mg/kg							
2-Chlorophenol	ND	0.050	mg/kg							
2-Methylnaphthalene	ND	0.050	mg/kg							
2-Methylphenol	ND	0.050	mg/kg							
2-Nitroaniline	ND	0.050	mg/kg							
2-Nitrophenol	ND	0.050	mg/kg							
3 & 4-Methylphenol	ND	0.050	mg/kg							
3,3'-Dichlorobenzidine	ND	0.25	mg/kg							
3-Nitroaniline	ND	0.050	mg/kg							
4,6-Dinitro-2-methylphenol	ND	0.50	mg/kg							
4-Bromophenyl phenyl ether	ND	0.050	mg/kg							
4-Chloro-3-methylphenol	ND	0.050	mg/kg							
4-Chloroaniline	ND	0.050	mg/kg							
4-Chlorophenyl phenyl ether	ND	0.050	mg/kg							
4-Nitroaniline	ND	0.050	mg/kg							
4-Nitrophenol	ND	0.050	mg/kg							
Acenaphthene	ND	0.050	mg/kg							
Acenaphthylene	ND	0.050	mg/kg							
Aniline	ND	0.050	mg/kg							
Anthracene	ND	0.050	mg/kg							
Azobenzene/1,2-Diphenylhydrazine	ND	0.050	mg/kg							
Benzidine	ND	0.50	mg/kg							
Benzo (a) anthracene	ND	0.050	mg/kg							
Benzo (a) pyrene	ND	0.050	mg/kg							
Benzo (b) fluoranthene	ND	0.050	mg/kg							
Benzo (g,h,i) perylene	ND	0.10	mg/kg							
Benzo (k) fluoranthene	ND	0.050	mg/kg							
Benzoic acid	ND	2.5	mg/kg							
Benzyl alcohol	ND	0.050	mg/kg							
Bis(2-chloroethoxy)methane	ND	0.050	mg/kg							
Bis(2-chloroethyl)ether	ND	0.050	mg/kg							
Bis(2-chloroisopropyl)ether	ND	0.050	mg/kg							
Bis(2-ethylhexyl)phthalate	0.0305	0.050	mg/kg					NR		J

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3F0001-BLK1)				Analyzed: 06/04/13 14:03						
Butyl benzyl phthalate	ND	0.050	mg/kg							
Carbazole	ND	0.050	mg/kg							
Chrysene	ND	0.050	mg/kg							
Dibenzo (a,h) anthracene	ND	0.10	mg/kg							
Dibenzofuran	ND	0.050	mg/kg							
Diethyl phthalate	ND	0.050	mg/kg							
Dimethyl phthalate	ND	0.25	mg/kg							
Di-n-butyl phthalate	0.0315	0.050	mg/kg					NR		J
Di-n-octyl phthalate	ND	0.050	mg/kg							
Fluoranthene	ND	0.050	mg/kg							
Fluorene	ND	0.050	mg/kg							
Hexachlorobenzene	ND	0.050	mg/kg							
Hexachlorobutadiene	ND	0.050	mg/kg							
Hexachlorocyclopentadiene	ND	0.050	mg/kg							
Hexachloroethane	ND	0.050	mg/kg							
Indeno (1,2,3-cd) pyrene	ND	0.10	mg/kg							
Isophorone	ND	0.050	mg/kg							
Naphthalene	ND	0.050	mg/kg							
Nitrobenzene	ND	0.050	mg/kg							
N-Nitrosodimethylamine	ND	0.050	mg/kg							
N-Nitrosodi-n-propylamine	ND	0.050	mg/kg							
N-Nitrosodiphenylamine	ND	0.050	mg/kg							
Pentachlorophenol	ND	0.050	mg/kg							
Phenanthrene	ND	0.050	mg/kg							
Phenol	ND	0.050	mg/kg							
Pyrene	ND	0.050	mg/kg							
Pyridine	ND	0.10	mg/kg							
Surr: 2,4,6-Tribromophenol	*4.31*		*mg/kg*	*5.00*		*86*	*40-97*			
Surr: 2-Fluorobiphenyl	*2.47*		*mg/kg*	*2.50*		*99*	*39-100*			
Surr: 2-Fluorophenol	*7.19*		*mg/kg*	*5.00*		*144*	*26-115*			*S-11*
Surr: Nitrobenzene-d5	*2.55*		*mg/kg*	*2.50*		*102*	*49-105*			
Surr: Phenol-d5	*5.47*		*mg/kg*	*5.00*		*109*	*36-105*			*S-11*
Surr: Terphenyl-d14	*2.80*		*mg/kg*	*2.50*		*112*	*36-106*			*S-11*
LCS (W3F0001-BS1)				Analyzed: 06/04/13 14:33						
1,2,4-Trichlorobenzene	1.94	0.050	mg/kg	2.50		78	28-120	NR		
1,4-Dichlorobenzene	1.98	0.050	mg/kg	2.50		79	41-98	NR		
2,4-Dinitrotoluene	2.07	0.050	mg/kg	2.50		83	43-121	NR		
2-Chlorophenol	1.96	0.050	mg/kg	2.50		78	22-123	NR		
4-Chloro-3-methylphenol	1.88	0.050	mg/kg	2.50		75	26-126	NR		
4-Nitrophenol	1.81	0.050	mg/kg	2.50		72	17-139	NR		
Acenaphthene	2.07	0.050	mg/kg	2.50		83	44-105	NR		
N-Nitrosodi-n-propylamine	2.00	0.050	mg/kg	2.50		80	24-128	NR		
Pentachlorophenol	1.80	0.050	mg/kg	2.50		72	20-116	NR		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3F0001-BS1)				Analyzed: 06/04/13 14:33						
Phenol	1.82	0.050	mg/kg	2.50		73	22-123	NR		
Pyrene	2.13	0.050	mg/kg	2.50		85	42-118	NR		
Surr: 2,4,6-Tribromophenol	*3.91*		*mg/kg*	*5.00*		*78*	*40-97*			
Surr: 2-Fluorobiphenyl	*2.15*		*mg/kg*	*2.50*		*86*	*39-100*			
Surr: 2-Fluorophenol	*4.65*		*mg/kg*	*5.00*		*93*	*26-115*			
Surr: Nitrobenzene-d5	*1.99*		*mg/kg*	*2.50*		*80*	*49-105*			
Surr: Phenol-d5	*4.22*		*mg/kg*	*5.00*		*84*	*36-105*			
Surr: Terphenyl-d14	*2.35*		*mg/kg*	*2.50*		*94*	*36-106*			
Matrix Spike (W3F0001-MS1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:03						
1,2,4-Trichlorobenzene	16.2	0.49	mg/kg	24.4	ND	66	26-124	NR		
1,4-Dichlorobenzene	16.9	0.49	mg/kg	24.4	ND	69	28-117	NR		
2,4-Dinitrotoluene	19.2	0.49	mg/kg	24.4	ND	79	26-132	NR		
2-Chlorophenol	16.4	0.49	mg/kg	24.4	ND	67	24-124	NR		
4-Chloro-3-methylphenol	15.9	0.49	mg/kg	24.4	ND	65	5-153	NR		
4-Nitrophenol	17.6	0.49	mg/kg	24.4	ND	72	0.6-139	NR		
Acenaphthene	17.6	0.49	mg/kg	24.4	ND	72	33-117	NR		
N-Nitrosodi-n-propylamine	16.5	0.49	mg/kg	24.4	ND	68	20-128	NR		
Pentachlorophenol	16.9	0.49	mg/kg	24.4	0.394	68	7-125	NR		
Phenol	15.8	0.49	mg/kg	24.4	ND	65	40-120	NR		
Pyrene	20.1	0.49	mg/kg	24.4	ND	83	22-148	NR		
Surr: 2,4,6-Tribromophenol	*34.6*		*mg/kg*	*48.8*		*71*	*40-97*			
Surr: 2-Fluorobiphenyl	*17.3*		*mg/kg*	*24.4*		*71*	*39-100*			
Surr: 2-Fluorophenol	*35.6*		*mg/kg*	*48.8*		*73*	*26-115*			
Surr: Nitrobenzene-d5	*16.1*		*mg/kg*	*24.4*		*66*	*49-105*			
Surr: Phenol-d5	*34.3*		*mg/kg*	*48.8*		*70*	*36-105*			
Surr: Terphenyl-d14	*21.4*		*mg/kg*	*24.4*		*88*	*36-106*			
Matrix Spike Dup (W3F0001-MSD1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:33						
1,2,4-Trichlorobenzene	14.9	0.48	mg/kg	23.9	ND	62	26-124	8	30	
1,4-Dichlorobenzene	15.5	0.48	mg/kg	23.9	ND	65	28-117	9	30	
2,4-Dinitrotoluene	15.8	0.48	mg/kg	23.9	ND	66	26-132	19	30	
2-Chlorophenol	15.3	0.48	mg/kg	23.9	ND	64	24-124	7	30	
4-Chloro-3-methylphenol	14.4	0.48	mg/kg	23.9	ND	60	5-153	10	30	
4-Nitrophenol	13.6	0.48	mg/kg	23.9	ND	57	0.6-139	25	30	
Acenaphthene	16.0	0.48	mg/kg	23.9	ND	67	33-117	10	30	
N-Nitrosodi-n-propylamine	14.2	0.48	mg/kg	23.9	ND	59	20-128	15	30	
Pentachlorophenol	12.3	0.48	mg/kg	23.9	0.394	50	7-125	31	30	MS-05
Phenol	14.5	0.48	mg/kg	23.9	ND	61	40-120	9	30	
Pyrene	15.6	0.48	mg/kg	23.9	ND	65	22-148	25	30	
Surr: 2,4,6-Tribromophenol	*27.8*		*mg/kg*	*47.8*		*58*	*40-97*			
Surr: 2-Fluorobiphenyl	*14.9*		*mg/kg*	*23.9*		*62*	*39-100*			
Surr: 2-Fluorophenol	*31.0*		*mg/kg*	*47.8*		*65*	*26-115*			
Surr: Nitrobenzene-d5	*14.6*		*mg/kg*	*23.9*		*61*	*49-105*			
Surr: Phenol-d5	*30.1*		*mg/kg*	*47.8*		*63*	*36-105*			

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800030

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W3F0001-MSD1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:33						
Surr: Terphenyl-d14	*15.7*		*mg/kg*	*23.9*		*66*	*36-106*			

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LADWP - Environmental Laboratory
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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Notes and Definitions

S-11	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit
NR	Not Reportable

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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DEPARTMENT OF WATER & POWER
OF THE CITY OF LOS ANGELES
Power System
Integrated Support Services

ENVIRONMENTAL LABORATORY DATA REPORT

CLIENT: GEORGE FAEUSTLE

PROJECT: 7600 TYRONE AVE

REPORT NO.: C12055 (Revised and Updated)

TABLE OF CONTENTS

DEPARTMENT OF WATER & POWER
OF THE CITY OF LOS ANGELES
Power System
Integrated Support Services

Report No. C12055
COC 13-1326
Page 1 of 1 w/ attachments
Updated and Revised

ENVIRONMENTAL LABORATORY DATA REPORT

7600 TYRONE AVE, VAN NUYS
Soil Samples

Soil samples from 7600 Tyrone Ave, Van Nuys, were submitted to the Environmental Laboratory on May 29, 2013 for the determination of their Volatile Organic Compounds (VOC), Metals, Semi-Volatile Organic Compounds (SVOC), Total Extractable Petroleum Hydrocarbons (TEPH) including Motor Oil (MO) and Diesel Range Organic (DRO), Chlorinated Pesticides, Polychlorinated Biphenyls (PCBs), and Gasoline Range Organics (GRO) content.

Testing information including tests requested and test methods are listed below. All quality assurance data indicate that the results for these samples are of acceptable quality.

Analysis Requested	Method	Results	Analyzed by
VOC	EPA 8260 B	**Attachment #1**	Environmental Lab
Metals	EPA 6010B/7471	**Attachment #2**	Environmental Lab
TEPH/Diesel/Motor Oil	EPA 8015M	**Attachment #3**	Environmental Lab
GRO	EPA 8015B	**Attachment #4**	Environmental Lab
PCB	EPA 8082	**Attachment #5**	Weck Laboratories
Pesticides	EPA 8081A	**Attachment #6**	Weck Laboratories
SVOC	EPA 8270 C	**Attachment #7**	Weck Laboratories

This report has been updated to include Pesticide Analyses (EPA 8081A- Attachment #6). The report was also revised as the MDL for Mercury Analysis in the original report was listed in parts per billion (ug/kg) instead of parts per million (mg/kg).

Additionally, please not that VOC analyses in Attachment #1 include results for this project from COC-1321 as well.

If you have any questions, or if further information is required, please contact Mr. Jeremy Stoa at (213) 367-7266 or Mr. Kevin Han at (213) 367-7267.

Date Completed: 6/6/2013
Work Order No.: AHJ17
Job Card No.: J95550
Copies to: G. Faeustle
N. Liu
K. Han
J. Stoa
FileNet

Test Performed by: Environmental Lab
Weck Laboratories
Report By: JS/LK Date: 6/14/13
Checked by: JMC Date: 6/14/13

APPROVED BY: Kevin Han 6/14/13
Kevin Han Date
Interim Laboratory Manager
Environmental Laboratory

Environme l Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Pc r
City of Los Angeles
Chain of Custody Record

COC #: 13-1326

Page 1 of 2

Report C#: 12055 JC# D95550 WO# 4HJ17
Refrig#: R154 Shelf ______ Bin# ______
Initial of Field Personnel: KD
No. of Field Test: ______

Sample Location: Tyrone Property, 7600 Tyrone Ave, Van Nuys, CA

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 B12-1' LN06314	5/28/13	1300									
2 -2' 06315		1302	ARCHIVE/HOLD	ICE	3	SLEEVE		SOIL	Pb (6010B)		
3 -3' 06316		1304							(ARCHIVE)		
4 B17-1' 06317		1306									
5 -2' 06318		1308	ARCHIVE/HOLD						As (6010B)		
6 -3' 06319		1310							(ARCHIVE)		
7 B13-1' 06320	5/29/13	0745									
8 -2' 06321		0747	ARCHIVE/HOLD		3	SLEEVE			OCPs (8081A)/As (6010B)		
9 -3' 06322		0749							(ARCHIVE)		
10 B15-1' 06323		0800									
11 -2' 06324		0802	ARCHIVE/HOLD								
12 -3' 06325		0804							(ARCHIVE)		
13 B16-1 06326		0810									
14 -2 06327		0812	ARCHIVE/HOLD								
15 -3 06328		0814							(ARCHIVE)		
16 B23-1 06329		0830		5035/ICE	5	SLEEVE			Title 22 Metals (6010B/7471A)/TPHcc (8015M)/SVOCs (8270C)/PCBs (8082)		

RUSH

Date & Time Stamp: LADWP 2013 MAY 29 AM 10: RECD BY: ENV. CHEM LAB

Requester: George Feaver/K. Drake   Organization/Div.: LADWP/Alta Environ.
Address ______ Tel. ______ Fax ______

Analyst: ______ Date ______
Approved: ______ Date ______

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify: STANDARD

	Printed Name	Signature	Time	Date
Sampled by:	K. Drake (Alta Environmental)	[signature]	1000	5/21/13
Relinquished by:	K. Drake	[signature]	1030	5/29/13
Received by	T NGUYEN	[signature]	1040	5/29/13

Chem Lab COC Form #7
Revision: 08/01/02

BE YC TY BT JS DW
LK RG KH

*Please archive/hold all 2' samples pending the 1' + 3' results
*Do NOT analyze 2' samples

COC13- 1326

000002

Environme...l Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Po...er
City of Los Angeles
Chain of Custody Record

COC #: 13-1326

Page 2 of 2

Sample Location: TYRONE PROPERTY

Report C# ______ JC# ______ WO# ______
Refrig#. ______ Shelf ______ Bin#. ______
Initial of Field Personnel: [initials]
No. of Field Test: ______

	Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use 1 or X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 B23-2′	LW06330	5/29/13	0882									
2 ↓ -3′	06331	↓	0834	ARCHIVE/HOLD								
3 B24-1′	06332		0838		5035/ICE	5	SLEEVE/ENCORE		SOIL	(ARCHIVE) (6010B) (8015M) (8270C) (8082)		
4 -2′	06333		0840		↓	↓			↓	T1t22 Metals/TPHcc/SVOCs/PCBs		
5 ↓ -3′	06334		0842	ARCHIVE/HOLD	ICE	3	SLEEVE		SOIL	OCPs(8081A) + As (6010B)		
6 B27-1	06335		0844			↓	↓	↓		(ARCHIVE)		
7 -2	06336		0900			↓	↓	↓		↓		
8 ↓ -3	06337		0902	ARCHIVE/HOLD	5035/ICE	7				(6010B) (8082)		
9 B24-1	06338		0904							Metals-T22/TPHcc/VOCs/SVOCs/PCBs		
10 -2	06339		0906		↓	↓	↓	↓		(ARCHIVE)		
11 ↓ -3	06340		0908	ARCHIVE/HOLD		5				↓		
12 B28-1	06341		0910							T22 Metals/TPHcc/SVOCs		
13 -2	06342		0930			↓	↓	↓		(ARCHIVE)		
14 ↓ -3	06343	↓	0932	ARCHIVE/HOLD		7				T22 Metals/TPHcc/VOCs/SVOCs/PCBs/(8081A) OCPs		
15			0934							(ARCHIVE)		
16					↓	↓	↓	↓	↓	↓		

Date & Time Stamp: LADWP 2013 MAY 29 AM 10:41 RECD BY: ENV. CHEM LAB

<< COC Label Here >>

Chem Lab COC Form #1
Revision: 08/01/02

Requester G. FERRUSTLE / K. DRAKE
Address ______ Tel. ______
Organization/Div. LADWP / Alta Environ. Fax ______

Analyst: ______ Date ______
Approved: ______ Date ______

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify
STANDARD

	Printed Name	Signature	Time	Date
Sampled by:	K. DRAKE (ALTA)	[signature]	1000	5/29/13
Relinquished by:	K. DRAKE (ALTA)	[signature]	1030	5/29/13
Received by	T. NGUYEN	[signature]	1040	5/29/13

DO NOT analyze 2′ samples — PLEASE ARCHIVE/HOLD pending analysis of 1′ + 3′ samples.

ATTACHMENT #1

VOLATILE ORGANIC COMPOUNDS (VOC)

EPA METHOD 8260 B

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06217	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-3
LN06335	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-1
LN06337	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-3
LN06341	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-1

Compounds	MDL ug/kg	PQL ug/kg	LN06217 Amount ug/kg	LN06219 Amount ug/kg	LN06229 Amount ug/kg	LN06231 Amount ug/kg	LN06335 Amount ug/kg	LN06337 Amount ug/kg	LN06341 Amount ug/kg
Acetone	32	160.0	nd	nd	nd	nd	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Benzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	24	120.0	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
Bromoform	23	115.0	nd	nd	nd	nd	nd	nd	nd
Bromomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
Methyl ethyl ketone (MEK)	26	130.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd	nd	nd	nd	nd	nd	nd
Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd	nd	nd	nd	nd	nd	nd
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Chloroethane	42	210.0	nd	nd	nd	nd	nd	nd	nd
2-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd	nd	nd
Chloroform	30	150.0	nd	nd	nd	nd	nd	nd	nd
Chloromethane	70	350.0	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	27	135.0	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
Dichlorodifluoromethane	37	185.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	29	145.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	32	160.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	21	105.0	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	38	190.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	27	135.0	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nd	nd	nd	nd
Diisopropyl ether (DIPE)	26	130.0	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Hexachlorobutadiene	44	220.0	nd	nd	nd	nd	nd	nd	nd

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06217	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-3
LN06335	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-1
LN06337	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-3
LN06341	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-1

Compounds	MDL ug/kg	PQL ug/kg	LN06217 Amount ug/kg	LN06219 Amount ug/kg	LN06229 Amount ug/kg	LN06231 Amount ug/kg	LN06335 Amount ug/kg	LN06337 Amount ug/kg	LN06341 Amount ug/kg
2-Hexanone	21	105.0	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	31	155.0	nd	nd	nd	nd	nd	nd	nd
Iodomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd	nd	nd	nd	nd	nd	nd
Naphthalene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Propylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Styrene	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethylene	27	135.0	nd	nd	nd	nd	nd	nd	nd
Toluene	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	26	130.0	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Trichloroethylene	24	120.0	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	35	175.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Vinyl acetate	52	260.0	nd	nd	nd	nd	nd	nd	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd	nd	nd	nd	nd	nd	nd
m & p-Xylene	75	375.0	nd	nd	nd	nd	nd	nd	nd
o-Xylene	28	140.0	nd	nd	nd	nd	nd	nd	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	104.0%	103.7%	102.7%	103.3%	102.3%	103.3%	102.7%
SURR: Dibromofluoromethane	80 - 120	97.0%	96.0%	95.0%	96.3%	95.3%	95.3%	95.3%
SURR: Toluene-d8	81 - 117	93.7%	92.3%	90.0%	92.3%	92.3%	92.3%	92.3%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06343	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-3

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN06343 Amount (ug/kg)
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
2-Butanone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
n-Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane (EDB)	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd
Hexachlorobutadiene	44	220.0	nd

COC 13-1321
COC 13-1326

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06343	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-3

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN06343 Amount (ug/kg)
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
Methyl iodide (Iodomethane)	20	100.0	nd
4-Methyl-2-pentanone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene (Phenylethylene)	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene (PCE)	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene (TCE)	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	
SURR: Bromofluorobenzene	74 - 121	103.7%
SURR: Dibromofluoromethane	80 - 120	95.0%
SURR: Toluene-d8	81 - 117	92.7%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

200004

COC 13-1321

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/28/2013	5/28/2013	6/3/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

COC 13-1321

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/28/2013	5/28/2013	6/3/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Hexachlorobutadiene	44	220.0	nd
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
Iodomethane	20	100.0	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	
SURR: Bromofluorobenzene	74 - 121	102.0%
SURR: Dibromofluoromethane	80 - 120	96.7%
SURR: Toluene-d8	81 - 117	92.7%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

200006

Project No: 7600 TYRONE

(RWQCB LabForm10A;Ver12/94)

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 6/3/13
BATCH #: LN06217 LN LN06217 LN06219 LN06229 LN06231 LN06335 LN06337 LN06341 LN06343
LAB SAMPLE I.D.: LN06217
ANALYTICAL METHOD: USEPA 8260
UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	25.3	84.3	30.0	25.9	86.3	2.3 %	59-172	22%
Benzene	ND	30.0	29.9	99.7	30.0	30.5	102	2.3 %	66-142	21%
Trichloroethylene	ND	30.0	30.8	103	30.0	31.3	104	0.97 %	62-137	24%
Toluene	ND	30.0	30.6	102	30.0	31.5	105	2.9 %	59-139	21%
Chlorobenzene	ND	30.0	35.7	119	30.0	36.6	122	2.5 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 6/3/13
SUPPLY SOURCE:
LOT NUMBER:
DATE OF SOURCE:
ANALYTICAL METHOD: USEPA 8260
LAB LCS I.D.: Q8087
UNIT: ug/kg

ANALYTE	LCS RESULT ug/kg	TRUE VALUE ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	29.9	30	99.7	70 - 130
1,2-Dichloroethane	32.1	30	107.0	70 - 130
1,4-Dichlorobenzene	31.3	30	104.3	70 - 130
Benzene	28.9	30	96.3	70 - 130
Bromoform	33	30	110.0	70 - 130
Carbon Tetrachloride	27	30	90.0	70 - 130
Tetrachloroethylene	28.2	30	94.0	70 - 130
Trichloroethylene	27.2	30	90.7	70 - 130

Analyst: B. Tiu

Reviewed by: R. Gentallen

200007

ATTACHMENT #2

METALS/MERCURY

EPA METHOD 6010B/7471

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06329	5/29/13	5/29/13	6/5/13	7600 TYRONE, B23-1
LN06331	5/29/13	5/29/13	6/5/13	7600 TYRONE, B23-3
LN06335	5/29/13	5/29/13	6/5/13	7600 TYRONE, B27-1
LN06337	5/29/13	5/29/13	6/5/13	7600 TYRONE, B27-3
LN06338	5/29/13	5/29/13	6/5/13	7600 TYRONE, B24-1
LN06340	5/29/13	5/29/13	6/5/13	7600 TYRONE, B24-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06329 mg/kg	LN06331 mg/kg	LN06335 mg/kg	LN06337 mg/kg	LN06338 mg/kg	LN06340 mg/kg
Antimony	500	15	6010B	1.0	5.0	1	3.3J	4.0J	2.7J	3.8J	3.3J	4.2J
Arsenic	500	5	6010B	2.6	13.0	1	ND	ND	ND	ND	ND	ND
Barium	10000	100	6010B	3.7	18.5	1	218	300	190	256	205	296
Beryllium	75	0.75	6010B	0.7	3.50	1	ND	ND	ND	ND	ND	ND
Cadmium	100	1	6010B	0.6	3.0	1	3.3	4.0	3.1	3.6	3.2	4.1
Chromium (T)	500	5	6010B	1.4	7.0	1	20	23	18	23	19	23
Cobalt	8000	80	6010B	1.0	5.0	1	15	20	14	18	16	21
Copper	2500	25	6010B	1.6	8.0	1	21	22	14	20	18	22
Lead	1000	5	6010B	0.9	4.5	1	39	15	12	14	42	15
Molybdenum	3500	350	6010B	0.3	1.5	1	ND	ND	0.5J	ND	ND	ND
Nickel	2000	20	6010B	0.6	3.0	1	20	24	20	23	20	24
Selenium	100	1	6010B	1.6	8.0	1	ND	ND	ND	ND	ND	ND
Silver	500	5	6010B	1.5	7.5	1	ND	ND	ND	ND	ND	ND
Thallium	700	7	6010B	1.0	5.0	1	ND	ND	ND	ND	ND	ND
Vanadium	2400	24	6010B	1.8	9.00	1	31	38	30	35	30	37
Zinc	5000	250	6010B	1.9	9.50	1	124	79	59	74	93	78
Mercury	20	0.2	7471	0.00002	0.0001	1	0.0480	0.0210	0.0200	0.0200	0.0240	0.0230

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: KC/YC

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06341	5/29/13	5/29/13	6/5/13	7600 TYRONE, B28-1
LN06343	5/29/13	5/29/13	6/5/13	7600 TYRONE, B28-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06341 mg/kg	LN06343 mg/kg
Antimony	500	15	6010B	1.0	5.0	1	2.0J	4.0J
Arsenic	500	5	6010B	2.6	13.0	1	ND	ND
Barium	10000	100	6010B	3.7	18.5	1	99	263
Beryllium	75	0.75	6010B	0.7	3.50	1	ND	ND
Cadmium	100	1	6010B	0.6	3.0	1	1.8J	3.7
Chromium (T)	500	5	6010B	1.4	7.0	1	10	22
Cobalt	8000	80	6010B	1.0	5.0	1	7.8	19
Copper	2500	25	6010B	1.6	8.0	1	7.7J	21
Lead	1000	5	6010B	0.9	4.5	1	6.7	18
Molybdenum	3500	350	6010B	0.3	1.5	1	0.44J	ND
Nickel	2000	20	6010B	0.6	3.0	1	12.3	22
Selenium	100	1	6010B	1.6	8.0	1	ND	ND
Silver	500	5	6010B	1.5	7.5	1	ND	ND
Thallium	700	7	6010B	1.0	5.0	1	ND	ND
Vanadium	2400	24	6010B	1.8	9.0	1	19	35
Zinc	5000	250	6010B	1.9	9.5	1	36	78
Mercury	20	0.2	7471	0.00002	0.0001	1	0.0093	0.0190

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: KC/YC

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06337 Dup	05/29/13	5/29/13	6/5/13	7600 TYRONE, B27-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	Dup LN06337 (mg/kg)
Antimony	500	15	6010B	1.0	5.0	1	3.8J
Arsenic	500	5	6010B	2.6	13.0	1	ND
Barium	10000	100	6010B	3.7	18.5	1	249
Beryllium	75	0.75	6010B	0.7	3.50	1	ND
Cadmium	100	1	6010B	0.6	3.0	1	3.5
Chromium (T)	2500	5	6010B	1.4	7.0	1	21
Cobalt	8000	80	6010B	1.0	5.0	1	17
Copper	2500	25	6010B	1.6	8.0	1	19
Lead	1000	5	6010B	0.9	4.5	1	14
Molybdenum	3500	350	6010B	0.3	1.5	1	ND
Nickel	2000	20	6010B	0.6	3.0	1	22
Selenium	100	1	6010B	1.6	8.0	1	ND
Silver	500	5	6010B	1.5	7.5	1	ND
Thallium	700	7	6010B	1.0	5.0	1	ND
Vanadium	2400	24	6010B	1.8	9.0	1	34
Zinc	5000	250	6010B	1.9	9.5	1	71

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
R.L. - Report Limit
D. F. - Dilution Factor

** - exceed TTLC limit
* - exceed 10x STLC limit
J - concentration above MDL and below RL

Analyst: KC

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY	DATE	DATE	DATE									
LOG NO.	SAMPLED	RECEIVED	ANALYZED			SAMPLE DESCRIPTION						
LN06317	5/29/13	5/29/13	6/4/13			7600 TYRONE, B17-1						
LN06319	5/30/13	5/30/13	6/4/13			7600 TYRONE, B17-3						
LN06320	5/31/13	5/31/13	6/4/13			7600 TYRONE, B13-1						
LN06322	6/1/13	6/1/13	6/4/13			7600 TYRONE, B13-3						
LN06323	6/2/13	6/2/13	6/4/13			7600 TYRONE, B15-1						
LN06325	6/2/13	6/2/13	6/4/13			7600 TYRONE, B15-3						
	LIMIT	LIMIT										
	TTLC	STLC					LN06317	LN06319	LN06320	LN06322	LN06323	LN06325
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Arsenic	500	5	6010B	2.6	13.0	100	ND	ND	ND	ND	ND	ND

LABORATORY	DATE	DATE	DATE									
LOG NO.	SAMPLED	RECEIVED	ANALYZED			SAMPLE DESCRIPTION						
LN06326	5/29/13	5/29/13	6/4/13			7600 TYRONE, B16-1						
LN06328	5/30/13	5/30/13	6/4/13			7600 TYRONE, B16-3						
LN06332	5/31/13	5/31/13	6/4/13			7600 TYRONE, B14-1						
LN06334	6/1/13	6/1/13	6/4/13			7600 TYRONE, B14-3						
	LIMIT	LIMIT										
	TTLC	STLC					LN06326	LN06328	LN06332	LN06334		
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/Kg	mg/Kg	mg/Kg	mg/Kg		
Arsenic	500	5	6010B	2.6	13.0	100	ND	ND	ND	ND		

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analayst: YC

ENVIRONMENTAL LABORATORY DATA REPORT

13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA METHOD 6010B

Sample Matrix: Soil

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06314	5/31/13	5/31/13	6/4/13	7600 TYRONE, B14-1
LN06316	6/1/13	6/1/13	6/4/13	7600 TYRONE, B14-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06314 mg/Kg	LN06316 mg/Kg				
Lead	1000	5	6010B	0.9	4.5	100	27.0	15.0				

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: YC

PROJECT: 7600 TYRONE

COC 13-1326

QA/QC Report

I. Blank Spike (BS) / Blank Spike Duplicate (BSD)

DATE ANALYZED: 06/05/13

ANALYTICAL METHOD USEPA 6010/7000

BATCH #: STTLCS-7753 (LN06329 LN06331 LN06337 LN06338 LN06340 LN06341 LN06343)

LAB SAMPLE I.D.: BLANK SOIL

UNIT: (Circle One) (mg/kg) mg/L

METAL	SAMPLE RESULT	SPIKE CONC	BS	%BS	(DUP) SPIKE CONC	BSD	%BSD	RPD	BS/BSD % REC. LIMIT	RPD LIMIT
Antimony	ND	200	153	76.5	200	147	73.5	4.0%	14 - 89	< 30
Arsenic	ND	200	203	102	200	203	102	0.0%	70 - 130	< 30
Barium	---	---	---	---	---	---	---	---	---	---
Beryllium	ND	200	189	94.5	200	191	95.5	1.1%	70 - 130	< 30
Cadmium	ND	200	196	98.0	200	194	97.0	1.0%	70 - 130	< 30
Chromium (T)	ND	200	193	96.5	200	196	98.0	1.5%	70 - 130	< 30
Cobalt	ND	200	206	103	200	203	102	1.0%	70 - 130	< 30
Copper	ND	200	190	95.0	200	195	97.5	2.6%	70 - 130	< 30
Lead	ND	200	199	99.5	200	199	99.5	0.0%	70 - 130	< 30
Molybdenum	ND	200	201	100	200	196	98.0	2.0%	70 - 130	< 30
Nickel	ND	200	197	98.5	200	199	99.5	1.0%	70 - 130	< 30
Selenium	ND	200	191	95.5	200	192	96.0	0.5%	70 - 130	< 30
Silver	---	---	---	---	---	---	---	---	---	---
Thallium	ND	200	171	85.5	200	174	87.0	1.7%	70 - 130	< 30
Vanadium	ND	200	199	99.5	200	202	101	1.5%	70 - 130	< 30
Zinc	ND	200	200	100	200	200	100	0.0%	70 - 130	< 30

BS = Blank Spike BSD = Blank Spike Duplicate RPD = Relative Percent Difference

%BS = Percent Recovery of Blank Spike %BSD = Percent Recovery of Blank Spike Duplicate

Analyst: KC

PROJECT: 7600 TYRONE

COC 13-1326

QA/QC Report

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE ANALYZED: 06/06/13

ANALYTICAL METHOD USEPA 6010/7000

BATCH #: $TTLCS-7753 (LN06329 LN06331 LN06337 LN06338 LN06340 LN06341 LN06343)

LAB SAMPLE I.D.: LN06337

UNIT: (Circle One) (mg/kg) mg/L

METAL	SAMPLE RESULT	SPIKE CONC	MS	%MS	(DUP) SPIKE CONC	MSD	%MSD	RPD	MS/MSD % REC. LIMIT	RPD LIMIT
Antimony	3.8	200	49	22.6	200	39	17.6	24.9%	14 - 89	< 30
Arsenic	ND	200	188	94.0	200	178	89.0	5.5%	70 - 130	< 30
Barium	---	---	---	---	---	---	---	---	---	---
Beryllium	ND	200	180	90.0	200	186	93.0	3.3%	70 - 130	< 30
Cadmium	3.6	200	174	85.2	200	172	84.2	1.2%	70 - 130	< 30
Chromium (T)	23	200	194	85.5	200	203	90.0	5.1%	70 - 130	< 30
Cobalt	18	200	193	87.5	200	193	87.5	0.0%	70 - 130	< 30
Copper	20	200	198	89.0	200	210	95.0	6.5%	70 - 130	< 30
Lead	14	200	175	80.5	200	176	81.0	0.6%	70 - 130	< 30
Molybdenum	ND	200	173	86.5	200	170	85.0	1.7%	70 - 130	< 30
Nickel	23	200	198	87.5	200	208	92.5	5.6%	70 - 130	< 30
Selenium	ND	200	179	89.5	200	178	89.0	0.6%	70 - 130	< 30
Silver	---	---	---	---	---	---	---	---	---	---
Thallium	ND	200	139	69.5	200	138	69.0	0.7%	70 - 130	< 30
Vanadium	35	200	212	88.5	200	226	95.5	7.6%	70 - 130	< 30
Zinc	74	200	247	86.5	200	260	93.0	7.2%	70 - 130	< 30

MS = Matrix Spike MSD = Matrix Spike Duplicate RPD = Relative Percent Difference

%MS = Percent Recovery of Matrix Spike %MSD = Percent Recovery of Matrix Spike Duplicate

Analyst: KC

PROJECT: 7600 TYRONE

COC 13-1326

III. Calibration and Laboratory Quality Control Check Sample (LCS)

DATE ANALYZED: 06/05/13

SUPPLY SOURCE: VHG

LOT NUMBER: 201-0040

ANALYTICAL: USEPA 6010/7000

LAB LCS I.D.: Q8732

UNIT: (Circle One) (mg/kg) mg/L

METAL	LCS RESULTS mg/kg	TRUE VALUE mg/kg	% Recovery	Acceptable Range % Recovery
Antimony	68	80	85.0	48 - 84
Arsenic	420	400	105	70 - 130
Barium	387	400	96.8	70 - 130
Beryllium	10	12.5	80.0	70 - 130
Cadmium	11	12.5	88.0	70 - 130
Chromium (T)	79	80	98.8	70 - 130
Cobalt	43	50	86.0	70 - 130
Copper	81	80	101	70 - 130
Lead	85	80	106	70 - 130
Molybdenum	---	---	---	---
Nickel	82	80	102	70 - 130
Selenium	197	200	98.5	70 - 130
Silver	10.1	12.5	80.8	70 - 130
Thallium	70	80	87.5	70 - 130
Vanadium	89	80	111	70 - 130
Zinc	203	200	102	70 - 130

Analyst: KC

Reviewed by: JNC 6/24/13

ATTACHMENT #3

TOTAL EXTRACTABLE PETROLEUM
HYDROCARBONS (TEPH)
MOTOR OIL (MO)
DIESEL RANGE ORGANIC (DRO)

EPA METHOD 8015M

COC No. 13-1326

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015M
TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST. ID	RUN BATCH
LN06329	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B23-1	GC Agilent	053113
LN06331	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B23-3	GC Agilent	053113
LN06335	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B27-1	GC Agilent	053113
LN06337	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B27-3	GC Agilent	053113
LN06338	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B24-1	GC Agilent	053113
LN06340	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B24-3	GC Agilent	053113
LN06341	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B28-1	GC Agilent	053113

	MDL / PQL mg/kg	MB mg/kg	LN06329 mg/kg	LN06331 mg/kg	LN06335 mg/kg	LN06337 mg/kg	LN06338 mg/kg	LN06340 mg/kg	LN06341 mg/kg
Dilution Factor		1	1	1	1	1	1	1	1
TEPH (C9 - C36)	4 / 20	ND	ND	4.2 J	4.0 J	13.1 J	60.6	4.4 J	ND
DRO (C10 - C28)	29 / 145	ND	ND	ND	ND	ND	ND	ND	ND
MOTOR OIL	35 / 175	ND	ND	ND	ND	ND	60.6 J	ND	ND
Quality Control Data		MB							
Surrogate/Internal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooctadecane	(60 - 140)	90.5%	96.5%	96.0%	106%	94.0%	100%	96.5%	80.0%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - above MDL but below PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1326

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015M
TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST. ID	RUN BATCH
LN06343	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B28-3	GC Agilent	053113

	MDL / PQL mg/kg		LN06343 mg/kg
Dilution Factor			1
TEPH (C9 - C36)	4 / 20		ND
DRO (C10 - C28)	29 / 145		ND
MOTOR OIL	35 / 175		ND
Quality Control Data			
Surrogate/Internal Std.	% ACP		% RC
1-Chlorooctadecane	(60 - 140)		107%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - above MDL but below PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1326

ENVIRONMENTAL LABORATORY

QA/QC REPORT
TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST. ID	RUN BATCH
LN06216 DUP	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B22-3	GC Agilent	053113

	MDL / PQL mg/kg		LN06216 DUP mg/kg
Dilution Factor			1
TEPH (C9 - C36)	4 / 20		ND
DRO (C10 - C28)	29 / 145		ND
MOTOR OIL	35 / 175		ND
Quality Control Data			
Surrogate/Internal Std.	% ACP		% RC
1-Chlorooctadecane	(60 - 140)		88.5%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - above MDL but below PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1326

ENVIRONMENTAL LABORATORY

QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL
Project: 7600 TYRONE

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.: Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit: mg/kg

ANALYTE		RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
TEPH		053113	5/31/2013	280	209	74.6	70 - 130
DRO		053113	5/31/2013	500	379	75.8	70 - 130
MO		053113	5/31/2013	500	436	87.2	70 - 130

Analysts J. Yi

Reviewed by R. Gentallan
6/4/13

ATTACHMENT #4

GASOLINE RANGE ORGANICS (GRO)

EPA METHOD 8015B

COC No. 13-1326

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015B
GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INSTR. ID	RUN LOG/BATCH
LN06329	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B23-1	AG gas	20130530
LN06331	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B23-3	AG gas	20130530
LN06335	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B27-1	AG gas	20130530
LN06337	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B27-3	AG gas	20130530
LN06338	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B24-1	AG gas	20130530
LN06340	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B24-3	AG gas	20130530
LN06341	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B28-1	AG gas	20130530

	MDL / PQL mg/kg	MB mg/kg	LN06329 mg/kg	LN06331 mg/kg	LN06335 mg/kg	LN06337 mg/kg	LN06338 mg/kg	LN06340 mg/kg	LN06341 mg/kg
Dilution Factor	1	1	1	1	1	1	4**	1	1
Gasoline (GRO)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality Control Data									
Surrogate/Internal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorobenzene-d4	(70 - 130)	109%	107%	108%	108%	108%	107%	108%	108%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

** *Sample was analyzed at higher dilution : Sample extract was either exhibiting high turbidity or highly colored*
MDL/PQL at higher dilution is calculted as MDL/PQL (dilution x1) multipied by the dilution factor

COC No. 13-1326

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015B
GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION			INSTR ID	RUN LOG/BATCH	
LN06343	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B28-3			AG gas	20130530	
	MDL / PQL mg/kg	MB mg/kg	LN06343 mg/kg							
Dilution Factor	1	1	1							
Gasoline (GRO)	1.1 / 5.5	ND	ND							
Quality Control Data										
Surrogate/Internal Std.	% ACP	% RC	%RC							
1, 2 Dichlorobenzene-d4	(70 - 130)	109%	108%							

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

ENVIRONMENTAL LABORATORY

QA/QC REPORT
GRO (Gasoline Range Organics)

Sample Matrix: SOIL
Project: 7600 TYRONE

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)
Reporting Unit: mg/kg

SAMPLE	BATCH	SAMPLE	SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN06205	20130530	ND	22.0	22.4	102%	22.9	104%	2.2%	70-130	30

SPIKE CONC = Spiking Concentration;
MS = Matrix Spike
MSD = Matrix Spike Duplicate
% MS = Percent Recovery of MS
% MSD = Percent Recovery of MSD
RPD = Relative Percent Difference
ACP = Acceptable Range of Percent

II. Laboratory Quality Control Check Sample (LCS)
LCS Log No. Q8637

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130530	5/30/2013	22.0	20.9	95.0	70 - 130

Analyzed by *B. Estrada*
Reviewed by *R. Gentallan* 6/4/13

ATTACHMENT #5

POLYCHLORINATED BIPHENYLS (PCBs)

EPA Method 8082

ENVIRONMENTAL LABORATORY DATA REPORT

ANALYTICAL RESULT FOR PCBs by EPA600/SR-94/112/8082
(Polychlorinated Biphenyls)
Sample Matrix: Soil (Low Level)

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06329	5/29/2013	5/29/2013	5/30/2013	5/31/2013	
LN06331	5/29/2013	5/29/2013	5/30/2013	5/31/2013	
LN06335	5/29/2013	5/29/2013	5/30/2013	5/31/2013	
LN06337	5/29/2013	5/29/2013	5/30/2013	5/31/2013	
LN06341	5/29/2013	5/29/2013	5/30/2013	6/4/2013	
LN06343	5/29/2013	5/29/2013	5/30/2013	6/4/2013	

PARAMETERS	MDL/PQL (mg/kg)	LN06329 (mg/kg)	LN06331 (mg/kg)	LN06335 (mg/kg)	LN06337 (mg/kg)	LN06341 (mg/kg)	LN06343 (mg/kg)	
PCB - 1221	0.07/0.2	ND	ND	ND	ND	ND	ND	
PCB - 1232	0.07/0.2	ND	ND	ND	ND	ND	ND	
PCB - 1242	0.07/0.2	ND	ND	ND	ND	ND	ND	
PCB - 1248	0.07/0.2	ND	ND	ND	ND	ND	ND	
PCB - 1254	0.07/0.2	ND	ND	ND	ND	ND	ND	
PCB - 1260	0.07/0.2	ND	ND	ND	ND	ND	ND	
SURROGATE PARAMETERS	QC LIMIT %	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery	
DECACHLOROBIPHENYL	70 - 130	99	94	102	106	95	93	

MDL - Method Detection Limit

ND - Not Detected; below method detection limit

Analyst: D. Wong

Reviewed by: 6/14/13

Project Name : Tyrone Property, 7600 Tyrone Ave., Van Nuys, CA

QA/QC Report

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

ANALYTICAL METHOD: USEPA 600/SR-94/112
USEPA 8082

DATE ANALYZED: 06/04/13
BATCH #: 53013
LAB SAMPLE I.D.: LN06364

UNIT: mg/kg

PARAMETERS	SAMPLE RESULT	SPIKE CONC	MS	%MS	(DUP) SPIKE CONC	MSD	%MSD	RPD	MS/MSD % REC LIMIT	% RPD LIMIT
PCB-1242	0.0	25.0	20.8	83	25.0	20.3	81	2%	70 - 130	30
PCB-1260	0.0	25.0	NR	NR	25.0	NR	NR	NR	70 - 130	30

NR = Not reported dut to matrix interference.

MS - Matrix Spike *MSD - Matrix Spike Dupllicate*
%MS - Percent Recovery of Matrix Spike

RPD - Relative Percent Difference
%MSD - Percent Recovery of Matrix Spike Duplicate

Reviewed by: 6/4/13

Project Name : Tyrone Property, 7600 Tyrone Ave., Van Nuys, CA

II. Laboratory Control Check Sample (LCS)

DATE ANALYZED: 06/04/13
BATCH No. 053013

ANALYTICAL METHOD: USEPA 600/SR-94/112
UNIT: mg/kg USEPA 8082

PARAMETERS		TRUE CONC	LCS RESULT	% RC	LCSD RESULT	% RC	ACCEPTANCE LIMITS (%)
PCB - 1242		25.0	19.6	78	NA	NA	80 - 120
PCB - 1260		25.0	21.9	88	NA	NA	80 - 120

Note: Low LCS recovery for 1242 (78%). Although LCS is 2% below acceptance limit, it should have no significant effect on the quality of this batch of analyses.

%RC - Percent Recovery
NA - Not Analyzed
Batch - ten samples per batch

Reviewed by: 6/4/13

ATTACHMENT #6

PESTICIDES

EPA METHOD 8081

CERTIFICATE OF ANALYSIS

Client:	LADWP - Environmental Laboratory 1630 North Main Street, Bldg. 7, Rm 311 Los Angeles, CA 90012	**Report Date:**	06/13/13 15:54
		Received Date:	05/30/13 09:50
		Turn Around:	5 workdays
Attention:	Kevin Han	**Work Order #:**	3E30013
Phone:	213-367-7267		
Fax:	(213) 367-7285		47055-2, COC #13-1321,26
		Client Project:	7600 Tyrone Ave,COC #13-1321,26, WO#

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Kevin Han :

Enclosed are the results of analyses for samples received 05/30/13 09:50 with the Chain of Custody document. The samples were received in good condition, at 2.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Kim G Tu
Project Manager

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
LN06208	Client		3E30013-01	Solid	05/28/13 08:10
LN06210	Client		3E30013-02	Solid	05/28/13 08:14
LN06232	Client		3E30013-03	Solid	05/28/13 09:50
LN06234	Client		3E30013-04	Solid	05/28/13 09:54
LN06250	Client		3E30013-05	Solid	05/28/13 10:50
LN06252	Client		3E30013-06	Solid	05/28/13 10:54
LN06320	Client		3E30013-07	Solid	05/29/13 07:45
LN06322	Client		3E30013-08	Solid	05/29/13 07:49
LN06323	Client		3E30013-09	Solid	05/29/13 08:00
LN06325	Client		3E30013-10	Solid	05/29/13 08:04
LN06326	Client		3E30013-11	Solid	05/29/13 08:10
LN06328	Client		3E30013-12	Solid	05/29/13 08:14
LN06332	Client		3E30013-13	Solid	05/29/13 08:40
LN06334	Client		3E30013-14	Solid	05/29/13 08:44
LN06341	Client		3E30013-15	Solid	05/29/13 09:30
LN06343	Client		3E30013-16	Solid	05/29/13 09:34

ANALYSES

Chlorinated Pesticides and/or PCBs

700002

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-01 LN06208

Sampled: 05/28/13 08:10 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 17:02 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	ND	23	23	23	ug/kg	1	
4,4'-DDD	ND	4.5	23	23	ug/kg	1	
4,4'-DDE	ND	7.2	23	23	ug/kg	1	
4,4'-DDT	ND	5.1	23	23	ug/kg	1	
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	14	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	ND	7.3	23	23	ug/kg	1	
Chlordane (tech)	ND	95	470	470	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.3	23	23	ug/kg	1	
Dieldrin	ND	7.0	23	23	ug/kg	1	
Endosulfan I	ND	5.3	23	23	ug/kg	1	
Endosulfan II	ND	3.0	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.1	23	23	ug/kg	1	
Endrin	ND	12	23	23	ug/kg	1	
Endrin aldehyde	ND	6.5	23	23	ug/kg	1	
Endrin ketone	ND	4.3	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.3	23	23	ug/kg	1	
Heptachlor	ND	13	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.5	23	23	ug/kg	1	
Kepone	ND	200	470	470	ug/kg	1	
Methoxychlor	ND	5.1	23	23	ug/kg	1	
Mirex	ND	7.3	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	ND	80	700	700	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*68 %*	Conc:*158*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*63 %*	Conc:*145*		*18-112*	%		

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-02 **LN06210**

Sampled: 05/28/13 08:14 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 17:30 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.7	24	24	ug/kg	1	
4,4'-DDE	ND	7.5	24	24	ug/kg	1	
4,4'-DDT	ND	5.4	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	13	24	24	ug/kg	1	
beta-BHC	ND	7.7	24	24	ug/kg	1	
Chlordane (tech)	ND	100	490	490	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.6	24	24	ug/kg	1	
Dieldrin	ND	7.3	24	24	ug/kg	1	
Endosulfan I	ND	5.6	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.4	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.8	24	24	ug/kg	1	
Endrin ketone	ND	4.5	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.8	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.9	24	24	ug/kg	1	
Kepone	ND	210	490	490	ug/kg	1	
Methoxychlor	ND	5.4	24	24	ug/kg	1	
Mirex	ND	7.6	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	84	730	730	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*61 %*	Conc:*148*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*67 %*	Conc:*162*		*18-112*	%		

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-03 **LN06232**

Sampled: 05/28/13 09:50 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/04/13 17:58 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	21	21	21	ug/kg	1	
2,4'-DDE	ND	21	21	21	ug/kg	1	
2,4'-DDT	ND	21	21	21	ug/kg	1	
4,4'-DDD	ND	4.1	21	21	ug/kg	1	
4,4'-DDE	ND	6.5	21	21	ug/kg	1	
4,4'-DDT	ND	4.6	21	21	ug/kg	1	
Aldrin	ND	9.8	21	21	ug/kg	1	
alpha-BHC	ND	12	21	21	ug/kg	1	
alpha-Chlordane	ND	11	21	21	ug/kg	1	
beta-BHC	ND	6.7	21	21	ug/kg	1	
Chlordane (tech)	ND	86	420	420	ug/kg	1	
cis-Nonachlor	ND	21	21	21	ug/kg	1	
DCPA	ND	21	21	21	ug/kg	1	
delta-BHC	ND	4.8	21	21	ug/kg	1	
Dieldrin	ND	6.3	21	21	ug/kg	1	
Endosulfan I	ND	4.8	21	21	ug/kg	1	
Endosulfan II	ND	2.7	21	21	ug/kg	1	
Endosulfan sulfate	ND	4.6	21	21	ug/kg	1	
Endrin	ND	11	21	21	ug/kg	1	
Endrin aldehyde	ND	5.9	21	21	ug/kg	1	
Endrin ketone	ND	3.9	21	21	ug/kg	1	
gamma-BHC (Lindane)	ND	11	21	21	ug/kg	1	
gamma-Chlordane	ND	8.4	21	21	ug/kg	1	
Heptachlor	ND	11	21	21	ug/kg	1	
Heptachlor epoxide	ND	7.7	21	21	ug/kg	1	
Kepone	ND	190	420	420	ug/kg	1	
Methoxychlor	ND	4.6	21	21	ug/kg	1	
Mirex	ND	6.6	21	21	ug/kg	1	
Oxychlordane	ND	21	21	21	ug/kg	1	
Toxaphene	ND	72	630	630	ug/kg	1	
trans-Nonachlor	ND	21	21	21	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*135*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*77 %*	Conc:*163*		*18-112*	%		

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-04 LN06234

Sampled: 05/28/13 09:54 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/04/13 18:26 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.6	24	24	ug/kg	1	
4,4'-DDE	ND	7.4	24	24	ug/kg	1	
4,4'-DDT	ND	5.3	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	12	24	24	ug/kg	1	
beta-BHC	ND	7.6	24	24	ug/kg	1	
Chlordane (tech)	ND	98	480	480	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.5	24	24	ug/kg	1	
Dieldrin	ND	7.2	24	24	ug/kg	1	
Endosulfan I	ND	5.5	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.3	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.7	24	24	ug/kg	1	
Endrin ketone	ND	4.4	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.6	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.7	24	24	ug/kg	1	
Kepone	ND	210	480	480	ug/kg	1	
Methoxychlor	ND	5.3	24	24	ug/kg	1	
Mirex	ND	7.5	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	82	720	720	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*59 %*	Conc:*141*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*67 %*	Conc:*161*		*18-112*	%		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-05 **LN06250**

Sampled: 05/28/13 10:50 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 18:55 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	ND	23	23	23	ug/kg	1	
4,4'-DDD	ND	4.4	23	23	ug/kg	1	
4,4'-DDE	ND	7.1	23	23	ug/kg	1	
4,4'-DDT	ND	5.0	23	23	ug/kg	1	
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	13	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	ND	7.2	23	23	ug/kg	1	
Chlordane (tech)	ND	94	460	460	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.2	23	23	ug/kg	1	
Dieldrin	ND	6.9	23	23	ug/kg	1	
Endosulfan I	ND	5.2	23	23	ug/kg	1	
Endosulfan II	ND	2.9	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.0	23	23	ug/kg	1	
Endrin	ND	12	23	23	ug/kg	1	
Endrin aldehyde	ND	6.4	23	23	ug/kg	1	
Endrin ketone	ND	4.2	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.2	23	23	ug/kg	1	
Heptachlor	ND	12	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.3	23	23	ug/kg	1	
Kepone	ND	200	460	460	ug/kg	1	
Methoxychlor	ND	5.0	23	23	ug/kg	1	
Mirex	ND	7.2	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	ND	79	690	690	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*146*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*65 %*	Conc:*148*		*18-112*	%		

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700007

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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-06 **LN06252**

Sampled: 05/28/13 10:54 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 19:23 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	ND	23	23	23	ug/kg	1	
4,4'-DDD	ND	4.4	23	23	ug/kg	1	
4,4'-DDE	ND	7.1	23	23	ug/kg	1	
4,4'-DDT	ND	5.1	23	23	ug/kg	1	
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	13	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	ND	7.3	23	23	ug/kg	1	
Chlordane (tech)	ND	94	460	460	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.3	23	23	ug/kg	1	
Dieldrin	ND	6.9	23	23	ug/kg	1	
Endosulfan I	ND	5.3	23	23	ug/kg	1	
Endosulfan II	ND	2.9	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.1	23	23	ug/kg	1	
Endrin	ND	12	23	23	ug/kg	1	
Endrin aldehyde	ND	6.5	23	23	ug/kg	1	
Endrin ketone	ND	4.2	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.2	23	23	ug/kg	1	
Heptachlor	ND	13	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.4	23	23	ug/kg	1	
Kepone	ND	200	460	460	ug/kg	1	
Methoxychlor	ND	5.1	23	23	ug/kg	1	
Mirex	ND	7.2	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	ND	79	690	690	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*146*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*64 %*	Conc:*147*		*18-112*	%		

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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-07 LN06320

Sampled: 05/29/13 07:45 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/04/13 19:51 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	21	21	21	ug/kg	1	
2,4'-DDE	ND	21	21	21	ug/kg	1	
2,4'-DDT	ND	21	21	21	ug/kg	1	
4,4'-DDD	ND	4.0	21	21	ug/kg	1	
4,4'-DDE	**40**	6.3	21	21	ug/kg	1	
4,4'-DDT	**10**	4.5	21	21	ug/kg	1	J
Aldrin	ND	9.5	21	21	ug/kg	1	
alpha-BHC	ND	12	21	21	ug/kg	1	
alpha-Chlordane	ND	11	21	21	ug/kg	1	
beta-BHC	ND	6.5	21	21	ug/kg	1	
Chlordane (tech)	ND	84	410	410	ug/kg	1	
cis-Nonachlor	ND	21	21	21	ug/kg	1	
DCPA	ND	21	21	21	ug/kg	1	
delta-BHC	ND	4.7	21	21	ug/kg	1	
Dieldrin	ND	6.2	21	21	ug/kg	1	
Endosulfan I	ND	4.7	21	21	ug/kg	1	
Endosulfan II	ND	2.6	21	21	ug/kg	1	
Endosulfan sulfate	ND	4.5	21	21	ug/kg	1	
Endrin	ND	11	21	21	ug/kg	1	
Endrin aldehyde	ND	5.8	21	21	ug/kg	1	
Endrin ketone	ND	3.8	21	21	ug/kg	1	
gamma-BHC (Lindane)	ND	11	21	21	ug/kg	1	
gamma-Chlordane	ND	8.2	21	21	ug/kg	1	
Heptachlor	ND	11	21	21	ug/kg	1	
Heptachlor epoxide	ND	7.5	21	21	ug/kg	1	
Kepone	ND	180	410	410	ug/kg	1	
Methoxychlor	ND	4.5	21	21	ug/kg	1	
Mirex	ND	6.4	21	21	ug/kg	1	
Oxychlordane	ND	21	21	21	ug/kg	1	
Toxaphene	ND	71	620	620	ug/kg	1	
trans-Nonachlor	ND	21	21	21	ug/kg	1	
Surr: Decachlorobiphenyl	*66 %*	Conc:*135*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*70 %*	Conc:*144*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-08 **LN06322**

Sampled: 05/29/13 07:49 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/04/13 20:20 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	25	25	25	ug/kg	1	
2,4'-DDE	ND	25	25	25	ug/kg	1	
2,4'-DDT	ND	25	25	25	ug/kg	1	
4,4'-DDD	ND	4.8	25	25	ug/kg	1	
4,4'-DDE	ND	7.7	25	25	ug/kg	1	
4,4'-DDT	ND	5.5	25	25	ug/kg	1	
Aldrin	ND	12	25	25	ug/kg	1	
alpha-BHC	ND	15	25	25	ug/kg	1	
alpha-Chlordane	ND	13	25	25	ug/kg	1	
beta-BHC	ND	7.9	25	25	ug/kg	1	
Chlordane (tech)	ND	100	500	500	ug/kg	1	
cis-Nonachlor	ND	25	25	25	ug/kg	1	
DCPA	ND	25	25	25	ug/kg	1	
delta-BHC	ND	5.7	25	25	ug/kg	1	
Dieldrin	ND	7.5	25	25	ug/kg	1	
Endosulfan I	ND	5.7	25	25	ug/kg	1	
Endosulfan II	ND	3.2	25	25	ug/kg	1	
Endosulfan sulfate	ND	5.5	25	25	ug/kg	1	
Endrin	ND	13	25	25	ug/kg	1	
Endrin aldehyde	ND	7.0	25	25	ug/kg	1	
Endrin ketone	ND	4.6	25	25	ug/kg	1	
gamma-BHC (Lindane)	ND	13	25	25	ug/kg	1	
gamma-Chlordane	ND	10	25	25	ug/kg	1	
Heptachlor	ND	14	25	25	ug/kg	1	
Heptachlor epoxide	ND	9.1	25	25	ug/kg	1	
Kepone	ND	220	500	500	ug/kg	1	
Methoxychlor	ND	5.5	25	25	ug/kg	1	
Mirex	ND	7.8	25	25	ug/kg	1	
Oxychlordane	ND	25	25	25	ug/kg	1	
Toxaphene	ND	85	750	750	ug/kg	1	
trans-Nonachlor	ND	25	25	25	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*156*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*65 %*	Conc:*162*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-09 **LN06323**

Sampled: 05/29/13 08:00 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 20:48 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.7	24	24	ug/kg	1	
4,4'-DDE	ND	7.5	24	24	ug/kg	1	
4,4'-DDT	ND	5.3	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	13	24	24	ug/kg	1	
beta-BHC	ND	7.7	24	24	ug/kg	1	
Chlordane (tech)	ND	99	490	490	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.5	24	24	ug/kg	1	
Dieldrin	ND	7.3	24	24	ug/kg	1	
Endosulfan I	ND	5.5	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.3	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.8	24	24	ug/kg	1	
Endrin ketone	ND	4.5	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.7	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.8	24	24	ug/kg	1	
Kepone	ND	210	490	490	ug/kg	1	
Methoxychlor	ND	5.3	24	24	ug/kg	1	
Mirex	ND	7.6	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	83	730	730	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*65 %*	Conc:*157*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*79 %*	Conc:*191*		*18-112*	%		

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-10 **LN06325**

Sampled: 05/29/13 08:04 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/04/13 23:38 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	ND	23	23	23	ug/kg	1	
4,4'-DDD	ND	4.5	23	23	ug/kg	1	
4,4'-DDE	**15**	7.2	23	23	ug/kg	1	J
4,4'-DDT	**7.8**	5.2	23	23	ug/kg	1	J
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	14	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	ND	7.4	23	23	ug/kg	1	
Chlordane (tech)	ND	98	470	470	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.4	23	23	ug/kg	1	
Dieldrin	ND	7.0	23	23	ug/kg	1	
Endosulfan I	ND	5.4	23	23	ug/kg	1	
Endosulfan II	ND	3.0	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.2	23	23	ug/kg	1	
Endrin	ND	13	23	23	ug/kg	1	
Endrin aldehyde	ND	6.6	23	23	ug/kg	1	
Endrin ketone	ND	4.3	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.4	23	23	ug/kg	1	
Heptachlor	ND	13	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.5	23	23	ug/kg	1	
Kepone	ND	210	470	470	ug/kg	1	
Methoxychlor	ND	5.2	23	23	ug/kg	1	
Mirex	ND	7.3	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	ND	80	700	700	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*150*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*65 %*	Conc:*152*		*18-112*	%		

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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-11 **LN06326**

Sampled: 05/29/13 08:10 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 00:06 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	22	22	22	ug/kg	1	
2,4'-DDE	ND	22	22	22	ug/kg	1	
2,4'-DDT	ND	22	22	22	ug/kg	1	
4,4'-DDD	ND	4.2	22	22	ug/kg	1	
4,4'-DDE	ND	6.8	22	22	ug/kg	1	
4,4'-DDT	ND	4.8	22	22	ug/kg	1	
Aldrin	ND	10	22	22	ug/kg	1	
alpha-BHC	ND	13	22	22	ug/kg	1	
alpha-Chlordane	ND	11	22	22	ug/kg	1	
beta-BHC	ND	6.9	22	22	ug/kg	1	
Chlordane (tech)	ND	89	440	440	ug/kg	1	
cis-Nonachlor	ND	22	22	22	ug/kg	1	
DCPA	ND	22	22	22	ug/kg	1	
delta-BHC	ND	5.0	22	22	ug/kg	1	
Dieldrin	ND	6.6	22	22	ug/kg	1	
Endosulfan I	ND	5.0	22	22	ug/kg	1	
Endosulfan II	ND	2.8	22	22	ug/kg	1	
Endosulfan sulfate	ND	4.8	22	22	ug/kg	1	
Endrin	ND	12	22	22	ug/kg	1	
Endrin aldehyde	ND	6.1	22	22	ug/kg	1	
Endrin ketone	ND	4.0	22	22	ug/kg	1	
gamma-BHC (Lindane)	ND	11	22	22	ug/kg	1	
gamma-Chlordane	ND	8.8	22	22	ug/kg	1	
Heptachlor	ND	12	22	22	ug/kg	1	
Heptachlor epoxide	ND	8.0	22	22	ug/kg	1	
Kepone	ND	190	440	440	ug/kg	1	
Methoxychlor	ND	4.8	22	22	ug/kg	1	
Mirex	ND	6.8	22	22	ug/kg	1	
Oxychlordane	ND	22	22	22	ug/kg	1	
Toxaphene	ND	75	660	660	ug/kg	1	
trans-Nonachlor	ND	22	22	22	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*137*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*59 %*	Conc:*129*		*18-112*	%		

700013

LADWP - Environmental Laboratory
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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-12 **LN06328**

Sampled: 05/29/13 08:14 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 00:34 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	**190**	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.7	24	24	ug/kg	1	
4,4'-DDE	**740**	37	120	120	ug/kg	5	M-06
4,4'-DDT	**270**	5.3	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	13	24	24	ug/kg	1	
beta-BHC	**37**	7.7	24	24	ug/kg	1	
Chlordane (tech)	ND	99	490	490	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.5	24	24	ug/kg	1	
Dieldrin	ND	7.3	24	24	ug/kg	1	
Endosulfan I	ND	5.5	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.3	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.8	24	24	ug/kg	1	
Endrin ketone	ND	4.5	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.7	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.8	24	24	ug/kg	1	
Kepone	ND	210	490	490	ug/kg	1	
Methoxychlor	ND	5.3	24	24	ug/kg	1	
Mirex	ND	7.6	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	**2400**	83	730	730	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*154*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*61 %*	Conc:*148*		*18-112*	%		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-13 **LN06332**

Sampled: 05/29/13 08:40 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 01:02 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	25	25	25	ug/kg	1	
2,4'-DDE	ND	25	25	25	ug/kg	1	
2,4'-DDT	ND	25	25	25	ug/kg	1	
4,4'-DDD	ND	4.7	25	25	ug/kg	1	
4,4'-DDE	ND	7.5	25	25	ug/kg	1	
4,4'-DDT	ND	5.4	25	25	ug/kg	1	
Aldrin	ND	11	25	25	ug/kg	1	
alpha-BHC	ND	14	25	25	ug/kg	1	
alpha-Chlordane	ND	13	25	25	ug/kg	1	
beta-BHC	ND	7.7	25	25	ug/kg	1	
Chlordane (tech)	ND	100	490	490	ug/kg	1	
cis-Nonachlor	ND	25	25	25	ug/kg	1	
DCPA	ND	25	25	25	ug/kg	1	
delta-BHC	ND	5.6	25	25	ug/kg	1	
Dieldrin	ND	7.4	25	25	ug/kg	1	
Endosulfan I	ND	5.6	25	25	ug/kg	1	
Endosulfan II	ND	3.1	25	25	ug/kg	1	
Endosulfan sulfate	ND	5.4	25	25	ug/kg	1	
Endrin	ND	13	25	25	ug/kg	1	
Endrin aldehyde	ND	6.9	25	25	ug/kg	1	
Endrin ketone	ND	4.5	25	25	ug/kg	1	
gamma-BHC (Lindane)	ND	13	25	25	ug/kg	1	
gamma-Chlordane	ND	9.8	25	25	ug/kg	1	
Heptachlor	ND	13	25	25	ug/kg	1	
Heptachlor epoxide	ND	8.9	25	25	ug/kg	1	
Kepone	ND	220	490	490	ug/kg	1	
Methoxychlor	ND	5.4	25	25	ug/kg	1	
Mirex	ND	7.6	25	25	ug/kg	1	
Oxychlordane	ND	25	25	25	ug/kg	1	
Toxaphene	ND	84	740	740	ug/kg	1	
trans-Nonachlor	ND	25	25	25	ug/kg	1	
Surr: Decachlorobiphenyl	*56 %*	Conc:*138*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*67 %*	Conc:*165*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-14 **LN06334**

Sampled: 05/29/13 08:44 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 01:31 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.5	24	24	ug/kg	1	
4,4'-DDE	ND	7.3	24	24	ug/kg	1	
4,4'-DDT	ND	5.2	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	12	24	24	ug/kg	1	
beta-BHC	ND	7.5	24	24	ug/kg	1	
Chlordane (tech)	ND	97	470	470	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.4	24	24	ug/kg	1	
Dieldrin	ND	7.1	24	24	ug/kg	1	
Endosulfan I	ND	5.4	24	24	ug/kg	1	
Endosulfan II	ND	3.0	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.2	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.6	24	24	ug/kg	1	
Endrin ketone	ND	4.4	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	12	24	24	ug/kg	1	
gamma-Chlordane	ND	9.5	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.6	24	24	ug/kg	1	
Kepone	ND	210	470	470	ug/kg	1	
Methoxychlor	ND	5.2	24	24	ug/kg	1	
Mirex	ND	7.4	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	81	710	710	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*152*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*70 %*	Conc:*165*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-15 **LN06341**

Sampled: 05/29/13 09:30 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/05/13 02:00 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.6	24	24	ug/kg	1	
4,4'-DDE	ND	7.4	24	24	ug/kg	1	
4,4'-DDT	ND	5.3	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	12	24	24	ug/kg	1	
beta-BHC	ND	7.6	24	24	ug/kg	1	
Chlordane (tech)	ND	98	480	480	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.5	24	24	ug/kg	1	
Dieldrin	ND	7.2	24	24	ug/kg	1	
Endosulfan I	ND	5.5	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.3	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.7	24	24	ug/kg	1	
Endrin ketone	ND	4.4	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.6	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.8	24	24	ug/kg	1	
Kepone	ND	210	480	480	ug/kg	1	
Methoxychlor	ND	5.3	24	24	ug/kg	1	
Mirex	ND	7.5	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	82	720	720	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*151*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*69 %*	Conc:*166*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-16 **LN06343**

Sampled: 05/29/13 09:34 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 11:23 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	**36**	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	**94**	23	23	23	ug/kg	1	
4,4'-DDD	ND	4.5	23	23	ug/kg	1	
4,4'-DDE	**440**	7.2	23	23	ug/kg	1	
4,4'-DDT	**260**	5.1	23	23	ug/kg	1	
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	14	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	**42**	7.4	23	23	ug/kg	1	
Chlordane (tech)	ND	95	470	470	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.3	23	23	ug/kg	1	
Dieldrin	ND	7.0	23	23	ug/kg	1	
Endosulfan I	ND	5.3	23	23	ug/kg	1	
Endosulfan II	ND	3.0	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.1	23	23	ug/kg	1	
Endrin	ND	13	23	23	ug/kg	1	
Endrin aldehyde	ND	6.5	23	23	ug/kg	1	
Endrin ketone	ND	4.3	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.3	23	23	ug/kg	1	
Heptachlor	ND	13	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.5	23	23	ug/kg	1	
Kepone	ND	210	470	470	ug/kg	1	
Methoxychlor	ND	5.1	23	23	ug/kg	1	
Mirex	ND	7.3	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	**1500**	80	700	700	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*150*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*65 %*	Conc:*153*		*18-112*	%		

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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

QUALITY CONTROL SECTION

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LADWP - Environmental Laboratory
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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W3E1479 - EPA 8081A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3E1479-BLK1)				Analyzed: 06/04/13 13:16						
2,4'-DDD	ND	2.5	ug/kg							
2,4'-DDE	ND	2.5	ug/kg							
2,4'-DDT	ND	2.5	ug/kg							
4,4'-DDD	ND	2.5	ug/kg							
4,4'-DDE	ND	2.5	ug/kg							
4,4'-DDT	ND	2.5	ug/kg							
Aldrin	ND	2.5	ug/kg							
alpha-BHC	ND	2.5	ug/kg							
alpha-Chlordane	ND	2.5	ug/kg							
beta-BHC	ND	2.5	ug/kg							
Chlordane (tech)	ND	50	ug/kg							
cis-Nonachlor	ND	2.5	ug/kg							
DCPA	ND	2.5	ug/kg							
delta-BHC	ND	2.5	ug/kg							
Dieldrin	ND	2.5	ug/kg							
Endosulfan I	ND	2.5	ug/kg							
Endosulfan II	ND	2.5	ug/kg							
Endosulfan sulfate	ND	2.5	ug/kg							
Endrin	ND	2.5	ug/kg							
Endrin aldehyde	ND	2.5	ug/kg							
Endrin ketone	ND	2.5	ug/kg							
gamma-BHC (Lindane)	ND	2.5	ug/kg							
gamma-Chlordane	ND	2.5	ug/kg							
Heptachlor	ND	2.5	ug/kg							
Heptachlor epoxide	ND	2.5	ug/kg							
Kepone	ND	50	ug/kg							
Methoxychlor	ND	2.5	ug/kg							
Mirex	ND	2.5	ug/kg							
Oxychlordane	ND	2.5	ug/kg							
Toxaphene	ND	75	ug/kg							
trans-Nonachlor	ND	2.5	ug/kg							
Surr: Decachlorobiphenyl	*14.7*		*ug/kg*	*25.0*		*59*	*21-125*			
Surr: Tetrachloro-meta-xylene	*16.5*		*ug/kg*	*25.0*		*66*	*18-112*			
LCS (W3E1479-BS1)				Analyzed: 06/04/13 13:44						
4,4'-DDD	21.1	2.5	ug/kg	25.0		85	48-126	NR		
4,4'-DDE	20.1	2.5	ug/kg	25.0		80	48-121	NR		
4,4'-DDT	21.4	2.5	ug/kg	25.0		85	45-146	NR		
Aldrin	19.8	2.5	ug/kg	25.0		79	57-137	NR		
alpha-BHC	20.3	2.5	ug/kg	25.0		81	64-131	NR		
beta-BHC	20.6	2.5	ug/kg	25.0		82	48-126	NR		
Chlordane (tech)	ND	50	ug/kg				41-163			
delta-BHC	19.4	2.5	ug/kg	25.0		78	30-124	NR		
Dieldrin	21.2	2.5	ug/kg	25.0		85	49-123	NR		

700020

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W3E1479 - EPA 8081A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3E1479-BS1)				Analyzed: 06/04/13 13:44						
Endosulfan I	16.1	2.5	ug/kg	25.0		64	14-101	NR		
Endosulfan II	18.1	2.5	ug/kg	25.0		72	33-146	NR		
Endosulfan sulfate	22.6	2.5	ug/kg	25.0		90	33-146	NR		
Endrin	22.0	2.5	ug/kg	25.0		88	39-144	NR		
Endrin aldehyde	17.5	2.5	ug/kg	25.0		70	23-104	NR		
gamma-BHC (Lindane)	20.3	2.5	ug/kg	25.0		81	43-114	NR		
Heptachlor	20.4	2.5	ug/kg	25.0		82	48-125	NR		
Heptachlor epoxide	21.6	2.5	ug/kg	25.0		87	47-121	NR		
Methoxychlor	21.7	2.5	ug/kg	25.0		87	47-157	NR		
Toxaphene	ND	75	ug/kg				48-164			
Surr: Decachlorobiphenyl	*15.3*		*ug/kg*	*25.0*		*61*	*21-125*			
Surr: Tetrachloro-meta-xylene	*18.1*		*ug/kg*	*25.0*		*72*	*18-112*			
Matrix Spike (W3E1479-MS1)	**Source: 3E30013-01**			Analyzed: 06/04/13 14:12						
4,4'-DDD	210	24	ug/kg	240	ND	87	21-119	NR		
4,4'-DDE	199	24	ug/kg	240	ND	83	18-122	NR		
4,4'-DDT	208	24	ug/kg	240	ND	87	12-141	NR		
Aldrin	173	24	ug/kg	240	ND	72	24-173	NR		
alpha-BHC	175	24	ug/kg	240	ND	73	44-146	NR		
beta-BHC	189	24	ug/kg	240	ND	78	7-156	NR		
delta-BHC	185	24	ug/kg	240	ND	77	11-147	NR		
Dieldrin	202	24	ug/kg	240	ND	84	23-123	NR		
Endosulfan I	124	24	ug/kg	240	ND	52	0.1-94	NR		
Endosulfan II	150	24	ug/kg	240	ND	62	0.1-109	NR		
Endosulfan sulfate	215	24	ug/kg	240	ND	89	0.1-152	NR		
Endrin	206	24	ug/kg	240	ND	86	22-147	NR		
Endrin aldehyde	179	24	ug/kg	240	ND	74	0.1-114	NR		
gamma-BHC (Lindane)	178	24	ug/kg	240	ND	74	16-121	NR		
Heptachlor	180	24	ug/kg	240	ND	75	4-141	NR		
Heptachlor epoxide	198	24	ug/kg	240	ND	82	17-135	NR		
Methoxychlor	211	24	ug/kg	240	ND	88	14-153	NR		
Surr: Decachlorobiphenyl	*155*		*ug/kg*	*240*		*64*	*21-125*			
Surr: Tetrachloro-meta-xylene	*153*		*ug/kg*	*240*		*64*	*18-112*			
Matrix Spike Dup (W3E1479-MSD1)	**Source: 3E30013-01**			Analyzed: 06/04/13 14:40						
4,4'-DDD	215	24	ug/kg	243	ND	88	21-119	2	25	
4,4'-DDE	203	24	ug/kg	243	ND	84	18-122	2	25	
4,4'-DDT	220	24	ug/kg	243	ND	91	12-141	6	25	
Aldrin	185	24	ug/kg	243	ND	76	24-173	7	25	
alpha-BHC	187	24	ug/kg	243	ND	77	44-146	6	25	
beta-BHC	200	24	ug/kg	243	ND	83	7-156	6	25	
delta-BHC	193	24	ug/kg	243	ND	79	11-147	4	25	
Dieldrin	209	24	ug/kg	243	ND	86	23-123	4	25	
Endosulfan I	116	24	ug/kg	243	ND	48	0.1-94	7	25	
Endosulfan II	135	24	ug/kg	243	ND	56	0.1-109	10	25	

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W3E1479 - EPA 8081A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W3E1479-MSD1)	**Source: 3E30013-01**			Analyzed: 06/04/13 14:40						
Endosulfan sulfate	235	24	ug/kg	243	ND	97	0.1-152	9	25	
Endrin	214	24	ug/kg	243	ND	88	22-147	4	25	
Endrin aldehyde	188	24	ug/kg	243	ND	77	0.1-114	5	25	
gamma-BHC (Lindane)	189	24	ug/kg	243	ND	78	16-121	6	25	
Heptachlor	192	24	ug/kg	243	ND	79	4-141	7	25	
Heptachlor epoxide	208	24	ug/kg	243	ND	86	17-135	5	25	
Methoxychlor	235	24	ug/kg	243	ND	97	14-153	11	25	
Surr: Decachlorobiphenyl	*160*		*ug/kg*	*243*		*66*	*21-125*			
Surr: Tetrachloro-meta-xylene	*163*		*ug/kg*	*243*		*67*	*18-112*			

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

Notes and Definitions

M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit
NR	Not Reportable

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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ATTACHMENT #7

Semi Volatile Organic Compounds
(SVOCs)

EPA METHOD 8270C

CERTIFICATE OF ANALYSIS

Client:	LADWP - Environmental Laboratory 1630 North Main Street, Bldg. 7, Rm 311 Los Angeles, CA 90012	**Report Date:**	06/05/13 16:04
		Received Date:	05/30/13 09:50
		Turn Around:	5 workdays
Attention:	Kevin Han	**Work Order #:**	3E30014
Phone:	213-367-7267		49067-3, COC #13-1321,26
Fax:	(213) 367-7285	**Client Project:**	7600 Tyrone Ave,COC #13-1321,26, WO#

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Kevin Han :

Enclosed are the results of analyses for samples received 05/30/13 09:50 with the Chain of Custody document. The samples were received in good condition, at 2.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Kim G Tu
Project Manager

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
LN06205	Client		3E30014-01	Solid	05/28/13 08:08
LN06207	Client		3E30014-02	Solid	05/28/13 08:04
LN06214	Client		3E30014-03	Solid	05/28/13 08:50
LN06216	Client		3E30014-04	Solid	05/28/13 08:54
LN06217	Client		3E30014-05	Solid	05/28/13 09:00
LN06219	Client		3E30014-06	Solid	05/28/13 09:04
LN06229	Client		3E30014-07	Solid	05/28/13 09:40
LN06231	Client		3E30014-08	Solid	05/28/13 09:44
LN06241	Client		3E30014-09	Solid	05/28/13 10:20
LN06243	Client		3E30014-10	Solid	05/28/13 10:24
LN06259	Client		3E30014-11	Solid	05/28/13 11:30
LN06261	Client		3E30014-12	Solid	05/28/13 11:34
LN06329	Client		3E30014-13	Solid	05/29/13 08:30
LN06331	Client		3E30014-14	Solid	05/29/13 08:34
LN06335	Client		3E30014-15	Solid	05/29/13 09:00
LN06337	Client		3E30014-16	Solid	05/29/13 09:04
LN06338	Client		3E30014-17	Solid	05/29/13 09:08
LN06340	Client		3E30014-18	Solid	05/29/13 09:10
LN06341	Client		3E30014-19	Solid	05/29/13 09:30
LN06343	Client		3E30014-20	Solid	05/29/13 09:34

ANALYSES

Semivolatile Organic Compounds by GC/MS

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-13 **LN06329**

Sampled: 05/29/13 08:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 01:12 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.080	0.44	0.44	mg/kg	1	
1,2-Dichlorobenzene	ND	0.097	0.44	0.44	mg/kg	1	
1,3-Dichlorobenzene	ND	0.071	0.44	0.44	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.44	0.44	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.097	0.44	0.44	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.097	0.44	0.44	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.44	0.44	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.44	0.44	mg/kg	1	
2,4-Dinitrophenol	ND	3.4	22	22	mg/kg	1	
2,4-Dinitrotoluene	ND	0.088	0.44	0.44	mg/kg	1	
2,6-Dinitrotoluene	ND	0.071	0.44	0.44	mg/kg	1	
2-Chloronaphthalene	ND	0.071	0.44	0.44	mg/kg	1	
2-Chlorophenol	ND	0.088	0.44	0.44	mg/kg	1	
2-Methylnaphthalene	ND	0.080	0.44	0.44	mg/kg	1	
2-Methylphenol	ND	0.11	0.44	0.44	mg/kg	1	
2-Nitroaniline	ND	0.12	0.44	0.44	mg/kg	1	
2-Nitrophenol	ND	0.19	0.44	0.44	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.44	0.44	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.3	2.2	2.2	mg/kg	1	
3-Nitroaniline	ND	0.13	0.44	0.44	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.4	4.4	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.062	0.44	0.44	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.097	0.44	0.44	mg/kg	1	
4-Chloroaniline	ND	0.12	0.44	0.44	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.080	0.44	0.44	mg/kg	1	
4-Nitroaniline	ND	0.12	0.44	0.44	mg/kg	1	
4-Nitrophenol	ND	0.13	0.44	0.44	mg/kg	1	
Acenaphthene	ND	0.080	0.44	0.44	mg/kg	1	
Acenaphthylene	ND	0.080	0.44	0.44	mg/kg	1	
Aniline	ND	0.20	0.44	0.44	mg/kg	1	
Anthracene	ND	0.071	0.44	0.44	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.088	0.44	0.44	mg/kg	1	
Benzidine	ND	1.1	4.4	4.4	mg/kg	1	
Benzo (a) anthracene	ND	0.062	0.44	0.44	mg/kg	1	
Benzo (a) pyrene	ND	0.071	0.44	0.44	mg/kg	1	
Benzo (b) fluoranthene	ND	0.062	0.44	0.44	mg/kg	1	
Benzo (g,h,i) perylene	**0.11**	0.053	0.88	0.88	mg/kg	1	J
Benzo (k) fluoranthene	ND	0.12	0.44	0.44	mg/kg	1	
Benzoic acid	ND	1.7	22	22	mg/kg	1	
Benzyl alcohol	ND	0.12	0.44	0.44	mg/kg	1	

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-13 LN06329

Sampled: 05/29/13 08:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 01:12 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.080	0.44	0.44	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.097	0.44	0.44	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.12	0.44	0.44	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.44	0.44	mg/kg	1	
Butyl benzyl phthalate	**0.28**	0.13	0.44	0.44	mg/kg	1	J
Carbazole	ND	0.080	0.44	0.44	mg/kg	1	
Chrysene	ND	0.080	0.44	0.44	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.044	0.88	0.88	mg/kg	1	
Dibenzofuran	ND	0.080	0.44	0.44	mg/kg	1	
Diethyl phthalate	ND	0.053	0.44	0.44	mg/kg	1	
Dimethyl phthalate	ND	0.78	2.2	2.2	mg/kg	1	
Di-n-butyl phthalate	ND	0.071	0.44	0.44	mg/kg	1	
Di-n-octyl phthalate	ND	0.12	0.44	0.44	mg/kg	1	
Fluoranthene	ND	0.097	0.44	0.44	mg/kg	1	
Fluorene	ND	0.062	0.44	0.44	mg/kg	1	
Hexachlorobenzene	ND	0.071	0.44	0.44	mg/kg	1	
Hexachlorobutadiene	ND	0.080	0.44	0.44	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.44	0.44	mg/kg	1	
Hexachloroethane	ND	0.062	0.44	0.44	mg/kg	1	
Indeno (1,2,3-cd) pyrene	**0.15**	0.080	0.88	0.88	mg/kg	1	J
Isophorone	ND	0.088	0.44	0.44	mg/kg	1	
Naphthalene	ND	0.097	0.44	0.44	mg/kg	1	
Nitrobenzene	ND	0.097	0.44	0.44	mg/kg	1	
N-Nitrosodimethylamine	ND	0.080	0.44	0.44	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.080	0.44	0.44	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.062	0.44	0.44	mg/kg	1	
Pentachlorophenol	ND	0.14	0.44	0.44	mg/kg	1	
Phenanthrene	ND	0.071	0.44	0.44	mg/kg	1	
Phenol	ND	0.13	0.44	0.44	mg/kg	1	
Pyrene	ND	0.071	0.44	0.44	mg/kg	1	
Pyridine	ND	0.044	0.88	0.88	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*65 %*	Conc:*28.6*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*74 %*	Conc:*16.4*		*39-100*	%		
Surr: 2-Fluorophenol	*89 %*	Conc:*39.6*		*26-115*	%		
Surr: Nitrobenzene-d5	*76 %*	Conc:*16.8*		*49-105*	%		
Surr: Phenol-d5	*84 %*	Conc:*37.3*		*36-105*	%		
Surr: Terphenyl-d14	*86 %*	Conc:*19.1*		*36-106*	%		

800004

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-14 **LN06331**

Sampled: 05/29/13 08:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 01:42 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.090	0.50	0.50	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.50	0.50	mg/kg	1	
1,3-Dichlorobenzene	ND	0.080	0.50	0.50	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.50	0.50	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.50	0.50	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2,4-Dinitrophenol	ND	3.8	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.10	0.50	0.50	mg/kg	1	
2,6-Dinitrotoluene	ND	0.080	0.50	0.50	mg/kg	1	
2-Chloronaphthalene	ND	0.080	0.50	0.50	mg/kg	1	
2-Chlorophenol	ND	0.10	0.50	0.50	mg/kg	1	
2-Methylnaphthalene	ND	0.090	0.50	0.50	mg/kg	1	
2-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
2-Nitrophenol	ND	0.22	0.50	0.50	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.50	0.50	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	5.0	5.0	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.070	0.50	0.50	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.50	0.50	mg/kg	1	
4-Chloroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.090	0.50	0.50	mg/kg	1	
4-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Nitrophenol	ND	0.15	0.50	0.50	mg/kg	1	
Acenaphthene	ND	0.090	0.50	0.50	mg/kg	1	
Acenaphthylene	ND	0.090	0.50	0.50	mg/kg	1	
Aniline	ND	0.23	0.50	0.50	mg/kg	1	
Anthracene	ND	0.080	0.50	0.50	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.10	0.50	0.50	mg/kg	1	
Benzidine	ND	1.3	5.0	5.0	mg/kg	1	
Benzo (a) anthracene	ND	0.070	0.50	0.50	mg/kg	1	
Benzo (a) pyrene	ND	0.080	0.50	0.50	mg/kg	1	
Benzo (b) fluoranthene	ND	0.070	0.50	0.50	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.060	1.0	1.0	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.50	0.50	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.50	0.50	mg/kg	1	

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-14 **LN06331**

Sampled: 05/29/13 08:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 01:42 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.090	0.50	0.50	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.50	0.50	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.50	0.50	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.50	0.50	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.50	0.50	mg/kg	1	
Carbazole	ND	0.090	0.50	0.50	mg/kg	1	
Chrysene	ND	0.090	0.50	0.50	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.050	1.0	1.0	mg/kg	1	
Dibenzofuran	ND	0.090	0.50	0.50	mg/kg	1	
Diethyl phthalate	ND	0.060	0.50	0.50	mg/kg	1	
Dimethyl phthalate	ND	0.68	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.080	0.50	0.50	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.50	0.50	mg/kg	1	
Fluoranthene	ND	0.11	0.50	0.50	mg/kg	1	
Fluorene	ND	0.070	0.50	0.50	mg/kg	1	
Hexachlorobenzene	ND	0.080	0.50	0.50	mg/kg	1	
Hexachlorobutadiene	ND	0.090	0.50	0.50	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.50	0.50	mg/kg	1	
Hexachloroethane	ND	0.070	0.50	0.50	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.090	1.0	1.0	mg/kg	1	
Isophorone	ND	0.10	0.50	0.50	mg/kg	1	
Naphthalene	ND	0.11	0.50	0.50	mg/kg	1	
Nitrobenzene	ND	0.11	0.50	0.50	mg/kg	1	
N-Nitrosodimethylamine	ND	0.090	0.50	0.50	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.090	0.50	0.50	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.070	0.50	0.50	mg/kg	1	
Pentachlorophenol	ND	0.16	0.50	0.50	mg/kg	1	
Phenanthrene	ND	0.080	0.50	0.50	mg/kg	1	
Phenol	ND	0.15	0.50	0.50	mg/kg	1	
Pyrene	ND	0.080	0.50	0.50	mg/kg	1	
Pyridine	ND	0.050	1.0	1.0	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*61 %*	Conc:*30.6*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*73 %*	Conc:*18.0*		*39-100*	%		
Surr: 2-Fluorophenol	*86 %*	Conc:*42.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*75 %*	Conc:*18.8*		*49-105*	%		
Surr: Phenol-d5	*82 %*	Conc:*40.6*		*36-105*	%		
Surr: Terphenyl-d14	*84 %*	Conc:*21.0*		*36-106*	%		

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-15 LN06335

Sampled: 05/29/13 09:00 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 02:12 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.089	0.50	0.50	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.50	0.50	mg/kg	1	
1,3-Dichlorobenzene	ND	0.079	0.50	0.50	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.50	0.50	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.50	0.50	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2,4-Dinitrophenol	ND	3.8	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.099	0.50	0.50	mg/kg	1	
2,6-Dinitrotoluene	ND	0.079	0.50	0.50	mg/kg	1	
2-Chloronaphthalene	ND	0.079	0.50	0.50	mg/kg	1	
2-Chlorophenol	ND	0.099	0.50	0.50	mg/kg	1	
2-Methylnaphthalene	ND	0.089	0.50	0.50	mg/kg	1	
2-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
2-Nitrophenol	ND	0.22	0.50	0.50	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.50	0.50	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	5.0	5.0	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.50	0.50	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.50	0.50	mg/kg	1	
4-Chloroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.089	0.50	0.50	mg/kg	1	
4-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Nitrophenol	ND	0.15	0.50	0.50	mg/kg	1	
Acenaphthene	ND	0.089	0.50	0.50	mg/kg	1	
Acenaphthylene	ND	0.089	0.50	0.50	mg/kg	1	
Aniline	ND	0.23	0.50	0.50	mg/kg	1	
Anthracene	ND	0.079	0.50	0.50	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.099	0.50	0.50	mg/kg	1	
Benzidine	ND	1.2	5.0	5.0	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.50	0.50	mg/kg	1	
Benzo (a) pyrene	ND	0.079	0.50	0.50	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.50	0.50	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.99	0.99	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.50	0.50	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.50	0.50	mg/kg	1	

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-15 **LN06335**

Sampled: 05/29/13 09:00 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 02:12 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.089	0.50	0.50	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.50	0.50	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.50	0.50	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.50	0.50	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.50	0.50	mg/kg	1	
Carbazole	ND	0.089	0.50	0.50	mg/kg	1	
Chrysene	ND	0.089	0.50	0.50	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.050	0.99	0.99	mg/kg	1	
Dibenzofuran	ND	0.089	0.50	0.50	mg/kg	1	
Diethyl phthalate	ND	0.059	0.50	0.50	mg/kg	1	
Dimethyl phthalate	ND	0.87	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.079	0.50	0.50	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.50	0.50	mg/kg	1	
Fluoranthene	ND	0.11	0.50	0.50	mg/kg	1	
Fluorene	ND	0.069	0.50	0.50	mg/kg	1	
Hexachlorobenzene	ND	0.079	0.50	0.50	mg/kg	1	
Hexachlorobutadiene	ND	0.089	0.50	0.50	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.50	0.50	mg/kg	1	
Hexachloroethane	ND	0.069	0.50	0.50	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.089	0.99	0.99	mg/kg	1	
Isophorone	ND	0.099	0.50	0.50	mg/kg	1	
Naphthalene	ND	0.11	0.50	0.50	mg/kg	1	
Nitrobenzene	ND	0.11	0.50	0.50	mg/kg	1	
N-Nitrosodimethylamine	ND	0.089	0.50	0.50	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.089	0.50	0.50	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.50	0.50	mg/kg	1	
Pentachlorophenol	ND	0.16	0.50	0.50	mg/kg	1	
Phenanthrene	ND	0.079	0.50	0.50	mg/kg	1	
Phenol	ND	0.15	0.50	0.50	mg/kg	1	
Pyrene	ND	0.079	0.50	0.50	mg/kg	1	
Pyridine	ND	0.050	0.99	0.99	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*62 %*	Conc:*30.6*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*74 %*	Conc:*18.3*		*39-100*	%		
Surr: 2-Fluorophenol	*86 %*	Conc:*42.8*		*26-115*	%		
Surr: Nitrobenzene-d5	*75 %*	Conc:*18.5*		*49-105*	%		
Surr: Phenol-d5	*82 %*	Conc:*40.4*		*36-105*	%		
Surr: Terphenyl-d14	*82 %*	Conc:*20.2*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-16 **LN06337**

Sampled: 05/29/13 09:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 02:42 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.088	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.098	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.098	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.088	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.088	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.088	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.088	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.078	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.098	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.98	0.98	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-16 **LN06337**

Sampled: 05/29/13 09:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 02:42 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.088	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.49	0.49	mg/kg	1	
Carbazole	ND	0.088	0.49	0.49	mg/kg	1	
Chrysene	ND	0.088	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.98	0.98	mg/kg	1	
Dibenzofuran	ND	0.088	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.86	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.078	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.088	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.088	0.98	0.98	mg/kg	1	
Isophorone	ND	0.098	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.078	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.98	0.98	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*56 %*	Conc:*27.5*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*67 %*	Conc:*16.5*		*39-100*	%		
Surr: 2-Fluorophenol	*78 %*	Conc:*38.3*		*26-115*	%		
Surr: Nitrobenzene-d5	*69 %*	Conc:*16.9*		*49-105*	%		
Surr: Phenol-d5	*75 %*	Conc:*36.6*		*36-105*	%		
Surr: Terphenyl-d14	*73 %*	Conc:*18.0*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-17 **LN06338**

Sampled: 05/29/13 09:06 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 03:13 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.087	0.48	0.48	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.48	0.48	mg/kg	1	
1,3-Dichlorobenzene	ND	0.077	0.48	0.48	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.48	0.48	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.48	0.48	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.48	0.48	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.48	0.48	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.48	0.48	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	24	24	mg/kg	1	
2,4-Dinitrotoluene	ND	0.097	0.48	0.48	mg/kg	1	
2,6-Dinitrotoluene	ND	0.077	0.48	0.48	mg/kg	1	
2-Chloronaphthalene	ND	0.077	0.48	0.48	mg/kg	1	
2-Chlorophenol	ND	0.097	0.48	0.48	mg/kg	1	
2-Methylnaphthalene	ND	0.087	0.48	0.48	mg/kg	1	
2-Methylphenol	ND	0.12	0.48	0.48	mg/kg	1	
2-Nitroaniline	ND	0.13	0.48	0.48	mg/kg	1	
2-Nitrophenol	ND	0.21	0.48	0.48	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.48	0.48	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.4	2.4	mg/kg	1	
3-Nitroaniline	ND	0.14	0.48	0.48	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.8	4.8	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.068	0.48	0.48	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.48	0.48	mg/kg	1	
4-Chloroaniline	ND	0.13	0.48	0.48	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.087	0.48	0.48	mg/kg	1	
4-Nitroaniline	ND	0.13	0.48	0.48	mg/kg	1	
4-Nitrophenol	ND	0.14	0.48	0.48	mg/kg	1	
Acenaphthene	ND	0.087	0.48	0.48	mg/kg	1	
Acenaphthylene	ND	0.087	0.48	0.48	mg/kg	1	
Aniline	ND	0.22	0.48	0.48	mg/kg	1	
Anthracene	ND	0.077	0.48	0.48	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.097	0.48	0.48	mg/kg	1	
Benzidine	ND	1.2	4.8	4.8	mg/kg	1	
Benzo (a) anthracene	ND	0.068	0.48	0.48	mg/kg	1	
Benzo (a) pyrene	ND	0.077	0.48	0.48	mg/kg	1	
Benzo (b) fluoranthene	ND	0.068	0.48	0.48	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.058	0.97	0.97	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.48	0.48	mg/kg	1	
Benzoic acid	ND	1.8	24	24	mg/kg	1	
Benzyl alcohol	ND	0.14	0.48	0.48	mg/kg	1	

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-17 **LN06338**

Sampled: 05/29/13 09:06 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 03:13 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.087	0.48	0.48	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.48	0.48	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.48	0.48	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.48	0.48	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.48	0.48	mg/kg	1	
Carbazole	ND	0.087	0.48	0.48	mg/kg	1	
Chrysene	ND	0.087	0.48	0.48	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.048	0.97	0.97	mg/kg	1	
Dibenzofuran	ND	0.087	0.48	0.48	mg/kg	1	
Diethyl phthalate	ND	0.058	0.48	0.48	mg/kg	1	
Dimethyl phthalate	ND	0.85	2.4	2.4	mg/kg	1	
Di-n-butyl phthalate	ND	0.077	0.48	0.48	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.48	0.48	mg/kg	1	
Fluoranthene	ND	0.11	0.48	0.48	mg/kg	1	
Fluorene	ND	0.068	0.48	0.48	mg/kg	1	
Hexachlorobenzene	ND	0.077	0.48	0.48	mg/kg	1	
Hexachlorobutadiene	ND	0.087	0.48	0.48	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.48	0.48	mg/kg	1	
Hexachloroethane	ND	0.068	0.48	0.48	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.087	0.97	0.97	mg/kg	1	
Isophorone	ND	0.097	0.48	0.48	mg/kg	1	
Naphthalene	ND	0.11	0.48	0.48	mg/kg	1	
Nitrobenzene	ND	0.11	0.48	0.48	mg/kg	1	
N-Nitrosodimethylamine	ND	0.087	0.48	0.48	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.087	0.48	0.48	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.068	0.48	0.48	mg/kg	1	
Pentachlorophenol	ND	0.15	0.48	0.48	mg/kg	1	
Phenanthrene	ND	0.077	0.48	0.48	mg/kg	1	
Phenol	ND	0.14	0.48	0.48	mg/kg	1	
Pyrene	ND	0.077	0.48	0.48	mg/kg	1	
Pyridine	ND	0.048	0.97	0.97	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*55 %*	Conc:*26.6*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*62 %*	Conc:*14.9*		*39-100*	%		
Surr: 2-Fluorophenol	*72 %*	Conc:*34.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*65 %*	Conc:*15.7*		*49-105*	%		
Surr: Phenol-d5	*70 %*	Conc:*33.9*		*36-105*	%		
Surr: Terphenyl-d14	*70 %*	Conc:*16.8*		*36-106*	%		

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800012

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-18 **LN06340**

Sampled: 05/29/13 09:10 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 03:43 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.087	0.48	0.48	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.48	0.48	mg/kg	1	
1,3-Dichlorobenzene	ND	0.077	0.48	0.48	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.48	0.48	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.48	0.48	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.48	0.48	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.48	0.48	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.48	0.48	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	24	24	mg/kg	1	
2,4-Dinitrotoluene	ND	0.096	0.48	0.48	mg/kg	1	
2,6-Dinitrotoluene	ND	0.077	0.48	0.48	mg/kg	1	
2-Chloronaphthalene	ND	0.077	0.48	0.48	mg/kg	1	
2-Chlorophenol	ND	0.096	0.48	0.48	mg/kg	1	
2-Methylnaphthalene	ND	0.087	0.48	0.48	mg/kg	1	
2-Methylphenol	ND	0.12	0.48	0.48	mg/kg	1	
2-Nitroaniline	ND	0.12	0.48	0.48	mg/kg	1	
2-Nitrophenol	ND	0.21	0.48	0.48	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.48	0.48	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.4	2.4	mg/kg	1	
3-Nitroaniline	ND	0.14	0.48	0.48	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.8	4.8	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.067	0.48	0.48	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.48	0.48	mg/kg	1	
4-Chloroaniline	ND	0.12	0.48	0.48	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.087	0.48	0.48	mg/kg	1	
4-Nitroaniline	ND	0.12	0.48	0.48	mg/kg	1	
4-Nitrophenol	ND	0.14	0.48	0.48	mg/kg	1	
Acenaphthene	ND	0.087	0.48	0.48	mg/kg	1	
Acenaphthylene	ND	0.087	0.48	0.48	mg/kg	1	
Aniline	ND	0.22	0.48	0.48	mg/kg	1	
Anthracene	ND	0.077	0.48	0.48	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.096	0.48	0.48	mg/kg	1	
Benzidine	ND	1.2	4.8	4.8	mg/kg	1	
Benzo (a) anthracene	ND	0.067	0.48	0.48	mg/kg	1	
Benzo (a) pyrene	ND	0.077	0.48	0.48	mg/kg	1	
Benzo (b) fluoranthene	ND	0.067	0.48	0.48	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.058	0.96	0.96	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.48	0.48	mg/kg	1	
Benzoic acid	ND	1.8	24	24	mg/kg	1	
Benzyl alcohol	ND	0.13	0.48	0.48	mg/kg	1	

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-18 **LN06340**

Sampled: 05/29/13 09:10 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 03:43 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.087	0.48	0.48	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.48	0.48	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.48	0.48	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.48	0.48	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.48	0.48	mg/kg	1	
Carbazole	ND	0.087	0.48	0.48	mg/kg	1	
Chrysene	ND	0.087	0.48	0.48	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.048	0.96	0.96	mg/kg	1	
Dibenzofuran	ND	0.087	0.48	0.48	mg/kg	1	
Diethyl phthalate	ND	0.058	0.48	0.48	mg/kg	1	
Dimethyl phthalate	ND	0.85	2.4	2.4	mg/kg	1	
Di-n-butyl phthalate	ND	0.077	0.48	0.48	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.48	0.48	mg/kg	1	
Fluoranthene	ND	0.11	0.48	0.48	mg/kg	1	
Fluorene	ND	0.067	0.48	0.48	mg/kg	1	
Hexachlorobenzene	ND	0.077	0.48	0.48	mg/kg	1	
Hexachlorobutadiene	ND	0.087	0.48	0.48	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.48	0.48	mg/kg	1	
Hexachloroethane	ND	0.067	0.48	0.48	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.087	0.96	0.96	mg/kg	1	
Isophorone	ND	0.096	0.48	0.48	mg/kg	1	
Naphthalene	ND	0.11	0.48	0.48	mg/kg	1	
Nitrobenzene	ND	0.11	0.48	0.48	mg/kg	1	
N-Nitrosodimethylamine	ND	0.087	0.48	0.48	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.087	0.48	0.48	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.067	0.48	0.48	mg/kg	1	
Pentachlorophenol	ND	0.15	0.48	0.48	mg/kg	1	
Phenanthrene	ND	0.077	0.48	0.48	mg/kg	1	
Phenol	ND	0.14	0.48	0.48	mg/kg	1	
Pyrene	ND	0.077	0.48	0.48	mg/kg	1	
Pyridine	ND	0.048	0.96	0.96	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*56 %*	Conc:*26.9*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*62 %*	Conc:*14.8*		*39-100*	%		
Surr: 2-Fluorophenol	*72 %*	Conc:*34.5*		*26-115*	%		
Surr: Nitrobenzene-d5	*63 %*	Conc:*15.2*		*49-105*	%		
Surr: Phenol-d5	*69 %*	Conc:*33.0*		*36-105*	%		
Surr: Terphenyl-d14	*91 %*	Conc:*21.8*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-19 LN06341

Sampled: 05/29/13 09:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 04:13 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.081	0.45	0.45	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.45	0.45	mg/kg	1	
1,3-Dichlorobenzene	ND	0.072	0.45	0.45	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.45	0.45	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.45	0.45	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.45	0.45	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.45	0.45	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2,4-Dinitrophenol	ND	3.4	23	23	mg/kg	1	
2,4-Dinitrotoluene	ND	0.090	0.45	0.45	mg/kg	1	
2,6-Dinitrotoluene	ND	0.072	0.45	0.45	mg/kg	1	
2-Chloronaphthalene	ND	0.072	0.45	0.45	mg/kg	1	
2-Chlorophenol	ND	0.090	0.45	0.45	mg/kg	1	
2-Methylnaphthalene	ND	0.081	0.45	0.45	mg/kg	1	
2-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
2-Nitrophenol	ND	0.20	0.45	0.45	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.3	2.3	mg/kg	1	
3-Nitroaniline	ND	0.14	0.45	0.45	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.5	4.5	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.063	0.45	0.45	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.45	0.45	mg/kg	1	
4-Chloroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.081	0.45	0.45	mg/kg	1	
4-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Nitrophenol	ND	0.14	0.45	0.45	mg/kg	1	
Acenaphthene	ND	0.081	0.45	0.45	mg/kg	1	
Acenaphthylene	ND	0.081	0.45	0.45	mg/kg	1	
Aniline	ND	0.21	0.45	0.45	mg/kg	1	
Anthracene	ND	0.072	0.45	0.45	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.090	0.45	0.45	mg/kg	1	
Benzidine	ND	1.1	4.5	4.5	mg/kg	1	
Benzo (a) anthracene	ND	0.063	0.45	0.45	mg/kg	1	
Benzo (a) pyrene	ND	0.072	0.45	0.45	mg/kg	1	
Benzo (b) fluoranthene	ND	0.063	0.45	0.45	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.054	0.90	0.90	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.45	0.45	mg/kg	1	
Benzoic acid	ND	1.7	23	23	mg/kg	1	
Benzyl alcohol	ND	0.13	0.45	0.45	mg/kg	1	

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-19 LN06341

Sampled: 05/29/13 09:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 04:13 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.081	0.45	0.45	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.45	0.45	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.45	0.45	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.45	0.45	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.45	0.45	mg/kg	1	
Carbazole	ND	0.081	0.45	0.45	mg/kg	1	
Chrysene	ND	0.081	0.45	0.45	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.045	0.90	0.90	mg/kg	1	
Dibenzofuran	ND	0.081	0.45	0.45	mg/kg	1	
Diethyl phthalate	ND	0.054	0.45	0.45	mg/kg	1	
Dimethyl phthalate	ND	0.80	2.3	2.3	mg/kg	1	
Di-n-butyl phthalate	ND	0.072	0.45	0.45	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.45	0.45	mg/kg	1	
Fluoranthene	ND	0.10	0.45	0.45	mg/kg	1	
Fluorene	ND	0.063	0.45	0.45	mg/kg	1	
Hexachlorobenzene	ND	0.072	0.45	0.45	mg/kg	1	
Hexachlorobutadiene	ND	0.081	0.45	0.45	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.45	0.45	mg/kg	1	
Hexachloroethane	ND	0.063	0.45	0.45	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.081	0.90	0.90	mg/kg	1	
Isophorone	ND	0.090	0.45	0.45	mg/kg	1	
Naphthalene	ND	0.10	0.45	0.45	mg/kg	1	
Nitrobenzene	ND	0.10	0.45	0.45	mg/kg	1	
N-Nitrosodimethylamine	ND	0.081	0.45	0.45	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.081	0.45	0.45	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.063	0.45	0.45	mg/kg	1	
Pentachlorophenol	ND	0.14	0.45	0.45	mg/kg	1	
Phenanthrene	ND	0.072	0.45	0.45	mg/kg	1	
Phenol	ND	0.14	0.45	0.45	mg/kg	1	
Pyrene	ND	0.072	0.45	0.45	mg/kg	1	
Pyridine	ND	0.045	0.90	0.90	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*66 %*	Conc:*29.8*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*74 %*	Conc:*16.7*		*39-100*	%		
Surr: 2-Fluorophenol	*88 %*	Conc:*40.0*		*26-115*	%		
Surr: Nitrobenzene-d5	*75 %*	Conc:*16.9*		*49-105*	%		
Surr: Phenol-d5	*81 %*	Conc:*36.9*		*36-105*	%		
Surr: Terphenyl-d14	*83 %*	Conc:*18.7*		*36-106*	%		

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-20 LN06343

Sampled: 05/29/13 09:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 04:44 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.088	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.098	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.098	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.088	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.088	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.088	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.088	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.078	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.098	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.98	0.98	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-20 LN06343

Sampled: 05/29/13 09:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 04:44 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.088	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	**0.29**	0.15	0.49	0.49	mg/kg	1	J
Carbazole	ND	0.088	0.49	0.49	mg/kg	1	
Chrysene	ND	0.088	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.98	0.98	mg/kg	1	
Dibenzofuran	ND	0.088	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.86	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.078	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.088	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.088	0.98	0.98	mg/kg	1	
Isophorone	ND	0.098	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.078	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.98	0.98	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*59 %*	Conc:*28.9*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*67 %*	Conc:*16.5*		*39-100*	%		
Surr: 2-Fluorophenol	*83 %*	Conc:*40.5*		*26-115*	%		
Surr: Nitrobenzene-d5	*71 %*	Conc:*17.4*		*49-105*	%		
Surr: Phenol-d5	*77 %*	Conc:*37.6*		*36-105*	%		
Surr: Terphenyl-d14	*73 %*	Conc:*17.9*		*36-106*	%		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

QUALITY CONTROL SECTION

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3F0001-BLK1)				Analyzed: 06/04/13 14:03						
1,2,4-Trichlorobenzene	ND	0.050	mg/kg							
1,2-Dichlorobenzene	ND	0.050	mg/kg							
1,3-Dichlorobenzene	ND	0.050	mg/kg							
1,4-Dichlorobenzene	ND	0.050	mg/kg							
2,4,5-Trichlorophenol	ND	0.050	mg/kg							
2,4,6-Trichlorophenol	ND	0.050	mg/kg							
2,4-Dichlorophenol	ND	0.050	mg/kg							
2,4-Dimethylphenol	ND	0.050	mg/kg							
2,4-Dinitrophenol	ND	2.5	mg/kg							
2,4-Dinitrotoluene	ND	0.050	mg/kg							
2,6-Dinitrotoluene	ND	0.050	mg/kg							
2-Chloronaphthalene	ND	0.050	mg/kg							
2-Chlorophenol	ND	0.050	mg/kg							
2-Methylnaphthalene	ND	0.050	mg/kg							
2-Methylphenol	ND	0.050	mg/kg							
2-Nitroaniline	ND	0.050	mg/kg							
2-Nitrophenol	ND	0.050	mg/kg							
3 & 4-Methylphenol	ND	0.050	mg/kg							
3,3'-Dichlorobenzidine	ND	0.25	mg/kg							
3-Nitroaniline	ND	0.050	mg/kg							
4,6-Dinitro-2-methylphenol	ND	0.50	mg/kg							
4-Bromophenyl phenyl ether	ND	0.050	mg/kg							
4-Chloro-3-methylphenol	ND	0.050	mg/kg							
4-Chloroaniline	ND	0.050	mg/kg							
4-Chlorophenyl phenyl ether	ND	0.050	mg/kg							
4-Nitroaniline	ND	0.050	mg/kg							
4-Nitrophenol	ND	0.050	mg/kg							
Acenaphthene	ND	0.050	mg/kg							
Acenaphthylene	ND	0.050	mg/kg							
Aniline	ND	0.050	mg/kg							
Anthracene	ND	0.050	mg/kg							
Azobenzene/1,2-Diphenylhydrazine	ND	0.050	mg/kg							
Benzidine	ND	0.50	mg/kg							
Benzo (a) anthracene	ND	0.050	mg/kg							
Benzo (a) pyrene	ND	0.050	mg/kg							
Benzo (b) fluoranthene	ND	0.050	mg/kg							
Benzo (g,h,i) perylene	ND	0.10	mg/kg							
Benzo (k) fluoranthene	ND	0.050	mg/kg							
Benzoic acid	ND	2.5	mg/kg							
Benzyl alcohol	ND	0.050	mg/kg							
Bis(2-chloroethoxy)methane	ND	0.050	mg/kg							
Bis(2-chloroethyl)ether	ND	0.050	mg/kg							
Bis(2-chloroisopropyl)ether	ND	0.050	mg/kg							
Bis(2-ethylhexyl)phthalate	0.0305	0.050	mg/kg					NR		J

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Date Received: 05/30/13 09:50
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Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3F0001-BLK1)				Analyzed: 06/04/13 14:03						
Butyl benzyl phthalate	ND	0.050	mg/kg							
Carbazole	ND	0.050	mg/kg							
Chrysene	ND	0.050	mg/kg							
Dibenzo (a,h) anthracene	ND	0.10	mg/kg							
Dibenzofuran	ND	0.050	mg/kg							
Diethyl phthalate	ND	0.050	mg/kg							
Dimethyl phthalate	ND	0.25	mg/kg							
Di-n-butyl phthalate	0.0315	0.050	mg/kg					NR		J
Di-n-octyl phthalate	ND	0.050	mg/kg							
Fluoranthene	ND	0.050	mg/kg							
Fluorene	ND	0.050	mg/kg							
Hexachlorobenzene	ND	0.050	mg/kg							
Hexachlorobutadiene	ND	0.050	mg/kg							
Hexachlorocyclopentadiene	ND	0.050	mg/kg							
Hexachloroethane	ND	0.050	mg/kg							
Indeno (1,2,3-cd) pyrene	ND	0.10	mg/kg							
Isophorone	ND	0.050	mg/kg							
Naphthalene	ND	0.050	mg/kg							
Nitrobenzene	ND	0.050	mg/kg							
N-Nitrosodimethylamine	ND	0.050	mg/kg							
N-Nitrosodi-n-propylamine	ND	0.050	mg/kg							
N-Nitrosodiphenylamine	ND	0.050	mg/kg							
Pentachlorophenol	ND	0.050	mg/kg							
Phenanthrene	ND	0.050	mg/kg							
Phenol	ND	0.050	mg/kg							
Pyrene	ND	0.050	mg/kg							
Pyridine	ND	0.10	mg/kg							
Surr: 2,4,6-Tribromophenol	*4.31*		*mg/kg*	*5.00*		*86*	*40-97*			
Surr: 2-Fluorobiphenyl	*2.47*		*mg/kg*	*2.50*		*99*	*39-100*			
Surr: 2-Fluorophenol	*7.19*		*mg/kg*	*5.00*		*144*	*26-115*			*S-11*
Surr: Nitrobenzene-d5	*2.55*		*mg/kg*	*2.50*		*102*	*49-105*			
Surr: Phenol-d5	*5.47*		*mg/kg*	*5.00*		*109*	*36-105*			*S-11*
Surr: Terphenyl-d14	*2.80*		*mg/kg*	*2.50*		*112*	*36-106*			*S-11*
LCS (W3F0001-BS1)				Analyzed: 06/04/13 14:33						
1,2,4-Trichlorobenzene	1.94	0.050	mg/kg	2.50		78	28-120	NR		
1,4-Dichlorobenzene	1.98	0.050	mg/kg	2.50		79	41-98	NR		
2,4-Dinitrotoluene	2.07	0.050	mg/kg	2.50		83	43-121	NR		
2-Chlorophenol	1.96	0.050	mg/kg	2.50		78	22-123	NR		
4-Chloro-3-methylphenol	1.88	0.050	mg/kg	2.50		75	26-126	NR		
4-Nitrophenol	1.81	0.050	mg/kg	2.50		72	17-139	NR		
Acenaphthene	2.07	0.050	mg/kg	2.50		83	44-105	NR		
N-Nitrosodi-n-propylamine	2.00	0.050	mg/kg	2.50		80	24-128	NR		
Pentachlorophenol	1.80	0.050	mg/kg	2.50		72	20-116	NR		

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Report ID: 3E30014
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Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3F0001-BS1)				Analyzed: 06/04/13 14:33						
Phenol	1.82	0.050	mg/kg	2.50		73	22-123	NR		
Pyrene	2.13	0.050	mg/kg	2.50		85	42-118	NR		
Surr: 2,4,6-Tribromophenol	*3.91*		*mg/kg*	*5.00*		*78*	*40-97*			
Surr: 2-Fluorobiphenyl	*2.15*		*mg/kg*	*2.50*		*86*	*39-100*			
Surr: 2-Fluorophenol	*4.65*		*mg/kg*	*5.00*		*93*	*26-115*			
Surr: Nitrobenzene-d5	*1.99*		*mg/kg*	*2.50*		*80*	*49-105*			
Surr: Phenol-d5	*4.22*		*mg/kg*	*5.00*		*84*	*36-105*			
Surr: Terphenyl-d14	*2.35*		*mg/kg*	*2.50*		*94*	*36-106*			
Matrix Spike (W3F0001-MS1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:03						
1,2,4-Trichlorobenzene	16.2	0.49	mg/kg	24.4	ND	66	26-124	NR		
1,4-Dichlorobenzene	16.9	0.49	mg/kg	24.4	ND	69	28-117	NR		
2,4-Dinitrotoluene	19.2	0.49	mg/kg	24.4	ND	79	26-132	NR		
2-Chlorophenol	16.4	0.49	mg/kg	24.4	ND	67	24-124	NR		
4-Chloro-3-methylphenol	15.9	0.49	mg/kg	24.4	ND	65	5-153	NR		
4-Nitrophenol	17.6	0.49	mg/kg	24.4	ND	72	0.6-139	NR		
Acenaphthene	17.6	0.49	mg/kg	24.4	ND	72	33-117	NR		
N-Nitrosodi-n-propylamine	16.5	0.49	mg/kg	24.4	ND	68	20-128	NR		
Pentachlorophenol	16.9	0.49	mg/kg	24.4	0.394	68	7-125	NR		
Phenol	15.8	0.49	mg/kg	24.4	ND	65	40-120	NR		
Pyrene	20.1	0.49	mg/kg	24.4	ND	83	22-148	NR		
Surr: 2,4,6-Tribromophenol	*34.6*		*mg/kg*	*48.8*		*71*	*40-97*			
Surr: 2-Fluorobiphenyl	*17.3*		*mg/kg*	*24.4*		*71*	*39-100*			
Surr: 2-Fluorophenol	*35.6*		*mg/kg*	*48.8*		*73*	*26-115*			
Surr: Nitrobenzene-d5	*16.1*		*mg/kg*	*24.4*		*66*	*49-105*			
Surr: Phenol-d5	*34.3*		*mg/kg*	*48.8*		*70*	*36-105*			
Surr: Terphenyl-d14	*21.4*		*mg/kg*	*24.4*		*88*	*36-106*			
Matrix Spike Dup (W3F0001-MSD1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:33						
1,2,4-Trichlorobenzene	14.9	0.48	mg/kg	23.9	ND	62	26-124	8	30	
1,4-Dichlorobenzene	15.5	0.48	mg/kg	23.9	ND	65	28-117	9	30	
2,4-Dinitrotoluene	15.8	0.48	mg/kg	23.9	ND	66	26-132	19	30	
2-Chlorophenol	15.3	0.48	mg/kg	23.9	ND	64	24-124	7	30	
4-Chloro-3-methylphenol	14.4	0.48	mg/kg	23.9	ND	60	5-153	10	30	
4-Nitrophenol	13.6	0.48	mg/kg	23.9	ND	57	0.6-139	25	30	
Acenaphthene	16.0	0.48	mg/kg	23.9	ND	67	33-117	10	30	
N-Nitrosodi-n-propylamine	14.2	0.48	mg/kg	23.9	ND	59	20-128	15	30	
Pentachlorophenol	12.3	0.48	mg/kg	23.9	0.394	50	7-125	31	30	MS-05
Phenol	14.5	0.48	mg/kg	23.9	ND	61	40-120	9	30	
Pyrene	15.6	0.48	mg/kg	23.9	ND	65	22-148	25	30	
Surr: 2,4,6-Tribromophenol	*27.8*		*mg/kg*	*47.8*		*58*	*40-97*			
Surr: 2-Fluorobiphenyl	*14.9*		*mg/kg*	*23.9*		*62*	*39-100*			
Surr: 2-Fluorophenol	*31.0*		*mg/kg*	*47.8*		*65*	*26-115*			
Surr: Nitrobenzene-d5	*14.6*		*mg/kg*	*23.9*		*61*	*49-105*			
Surr: Phenol-d5	*30.1*		*mg/kg*	*47.8*		*63*	*36-105*			

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W3F0001-MSD1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:33						
Surr: Terphenyl-d14	*15.7*		*mg/kg*	*23.9*		*66*	*36-106*			

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Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

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Notes and Definitions

S-11	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit
NR	Not Reportable

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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JONES ENVIRONMENTAL, INC.

P.O. BOX 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:** **Client Ref. No.:**	A-7098 ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project Name:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave. Van Nuys, CA	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers. Tubing placed in the ground for soil gas sampling was purged three different times as recommended by DTSC/RWQCB regulations. This purge test determined how many purges of the soil gas tubing were needed throughout the project. One, three and ten purge volumes were analyzed to make this determination.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used since this purging level gave the highest results for the compound(s) of greatest interest.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity.

All samples were analyzed within 30 minutes of sampling.

Approval: 

Steve Jones, Ph.D.
Laboratory Manager

JONES ENVIRONMENTAL, INC.

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(714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP3-15 1P	VP3-15 3P	VP3-15 10P	VP3-5	VP2-5		
JEL ID:	A-7098-01	A-7098-02	A-7098-03	A-7098-04	A-7098-05	Practical Quantitation Limit	Units
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	**0.033**	**0.014**	**0.029**	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	**0.896**	**0.810**	**0.872**	**0.316**	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP3-15 1P	VP3-15 3P	VP3-15 10P	VP3-5	VP2-5		
JEL ID:	A-7098-01	A-7098-02	A-7098-03	A-7098-04	A-7098-05	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	**0.057**	**0.048**	**0.054**	**0.059**	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	**2.83**	**2.55**	**2.89**	**2.26**	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	89%	109%	103%	105%	109%	75 - 125	
Toluene-d_8	97%	99%	93%	98/%	100%	75 - 125	
4-Bromofluorobenzene	99%	97%	97%	97%	106%	75 - 125	
	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1		

ND= Not Detected

JONES ENVIRONMENTAL, INC.

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(714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP2-15	VP1-5	VP1-15	VP9-5	VP9-5 REP		
JEL ID:	A-7098-06	A-7098-07	A-7098-08	A-7098-09	A-7098-10	Practical Quantitation Limit	Units
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP2-15	VP1-5	VP1-15	VP9-5	VP9-5 REP		
JEL ID:	A-7098-06	A-7098-07	A-7098-08	A-7098-09	A-7098-10	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	102%	102%	103%	101%	109%	75 - 125	
Toluene-d_8	107%	102%	102%	91%	103%	75 - 125	
4-Bromofluorobenzene	107%	105%	97%	93%	91%	75 - 125	
	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1		

ND= Not Detected

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP9-15	VP14-5	VP14-15	VP15-5	VP15-15		
JEL ID:	A-7098-11	A-7098-12	A-7098-13	A-7098-14	A-7098-15	Practical Quantitation Limit	Units
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP9-15	VP14-5	VP14-15	VP15-5	VP15-15		
JEL ID:	A-7098-11	A-7098-12	A-7098-13	A-7098-14	A-7098-15	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	107%	105%	103%	103%	101%	75 - 125	
Toluene-d_8	99%	100%	105%	117%	95%	75 - 125	
4-Bromofluorobenzene	95%	101%	101%	107%	100%	75 - 125	
	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1		

ND= Not Detected

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:**	A-7098
		Client Ref. No.:	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave. Van Nuys, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP8-5	VP8-15	VP7-5	VP7-15	VP10-5		
JEL ID:	A-7098-16	A-7098-17	A-7098-18	A-7098-19	A-7098-20	Practical Quantitation Limit	Units
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	**0.017**	ND	**0.035**	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	**0.153**	**0.454**	**0.022**	**0.363**	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP8-5	VP8-15	VP7-5	VP7-15	VP10-5		
JEL ID:	A-7098-16	A-7098-17	A-7098-18	A-7098-19	A-7098-20	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	**0.057**	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	99%	102%	101%	113%	98%	75 - 125	
Toluene-d_8	104%	105%	95%	95%	100%	75 - 125	
4-Bromofluorobenzene	105%	101%	103%	93%	93%	75 - 125	
	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1	A2-060413-A-7098_1		

ND= Not Detected

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	SAMPLING BLANK	Practical Quantitation Limit	Units
JEL ID:	A-7098-21	A-7098-22		
Analytes:				
Benzene	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	0.008	µg/L
Bromoform	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	0.008	µg/L
Chloroethane	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
Chloromethane	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	A-7098-21	A-7098-22	Practical Quantitation Limit	Units
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	0.008	µg/L
Freon 113	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	0.008	µg/L
Naphthalene	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	0.008	µg/L
Styrene	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	0.008	µg/L
Toluene	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	0.008	µg/L
Xylenes	ND	ND	0.008	µg/L
MTBE	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	0.040	µg/L
TIC:				
n-propanol	ND	ND	0.008	µg/L
n-pentane	ND	ND	0.008	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			QC Limits	
Dibromofluoromethane	100%	103%	75 - 125	
Toluene-d_8	107%	100%	75 - 125	
4-Bromofluorobenzene	109%	97%	75 - 125	
	A2-060413-A-7098_1	A2-060413-A-7098_1		

ND= Not Detected

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JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:**	A-7098
		Client Ref. No.:	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave. Van Nuys, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** A2-060413-A-7098_1

JEL ID:	**A-7098-24**	**A-7098-25**			**A-7098-23**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	105%	107%	2.2%	70-130	105%	70-130
Benzene	96%	100%	4.6%	70-130	100%	70-130
Trichloroethylene	112%	108%	3.1%	70-130	95%	70-130
Toluene	107%	101%	5.2%	70-130	116%	70-130
Chlorobenzene	112%	113%	1.6%	70-130	100%	70-130
Surrogate Recovery:						
Dibromofluoromethane	99%	105%		75-125	113%	75-125
Toluene-d_8	109%	106%		75-125	114%	75-125
4-Bromofluorobenzene	101%	99%		75-125	103%	75-125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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Chain-of-Custody Record

Client: Alta Environmental, Inc
Date: 06.04.13
Project Name: Tyrone
Client Project #: ODWP-13-1198
Project Address: 7600 Tyrne Ave
Van Nuys, CA
Project Contact: Kristyn Drake

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~200 cc/min
Shut in Test: (Y) / N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ ______

JEL Project #: A-7098
Page 1 of 2

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Analysis Requested

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	EPA 8260B (VOCs FOXYS)				Magnehelic Vacuum (in/H_2O)	Number of Containers	Remarks/Special Instructions
VP3-15 1P	1	643	6/4	0739	0750	A-7098-01	SG	X				<5	2	gas tight glass syringe
VP3-15 3P	3	1930	↓	0750	0804	A-7098-02	SG	X				<5	2	↓
VP3-15 10P	10	6433	↓	0802	0819	A-7098-03	SG	X				<5	2	↓
VP3-5	1	589	↓	0825	0833	A-7098-04	SG	X				<5	2	↓
VP2-5	1	589	↓	0838	0847	A-7098-05	SG	X				<5	2	↓
VP2-15	1	643	↓	0851	0901	A-7098-06	SG	X				<5	2	↓
VP1-5	1	589	↓	0915	0921	A-7098-07	SG	X				<5	2	↓
VP1-15	1	643	↓	0923	0935	A-7098-08	SG	X				<5	2	↓
VP9-5	1	589	↓	0935	0949	A-7098-09	SG	X				<5	2	↓
VP9-5 REP	1	589	↓	0937	1004	A-7098-10	SG	X				<5	2	↓

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① Relinquished by (signature): [signature]
Company: ALTA ENVIRON
Date: 6/4/13
Time: 1300

② Received by (signature): [signature]
Company: Jones Environmental
Date: 06/03/13
Time: 1300

③ Relinquished by (signature):
Company:
Date:
Time:

④ Received by Laboratory (signature):
Company:
Date:
Time:

Total Number of Containers

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

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Fullerton, CA 92838
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Fax (714) 449-9685
www.jonesenvironmentallab.com

Chain-of-Custody Record

Client: Alta Environmental Inc
Project Name: Tyrone
Project Address: 7600 Tyrone Ave, Van Nuys, CA
Project Contact: Kristyn Drake

Date: 06.04.13
Client Project #: ODWP-13-1198

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☐ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~200 cc/min
Shut In Test ☐ Y ☐ N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: A-7098
Page: 2 of 2
Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: EPA 8260B (VOCs + Oxys)	Magnehelic Vacuum (in H_2O)	Number of Containers	Remarks/Special Instructions
VP9-15	1	643	06/04	1005	1017	A-7098-11	SG	X	<5	2	gas tight glass syringe
VP14-5	1	589		1017	1031	A-7098-12	SG	X	<5	2	
VP14-15	1	643		1033	1045	A-7098-13	SG	X	<5	2	
VP15-5	1	589		1046	1059	A-7098-14	SG	X	<5	2	
VP15-15	1	643		1055	1115	A-7098-15	SG	X	<5	2	
VP8.5	1	589		1111	1130	A-7098-16	SG	X	<5	2	
VP8-15	1	643		1126	1144	A-7098-17	SG	X	<5	2	
VP7-5	1	589		1140	1159	A-7098-18	SG	X	<5	2	
VP7-15	1	643		1155	1213	A-7098-19	SG	X	<5	2	
VP10-5	1	589		1209	1228	A-7098-20	SG	X	<5	2	

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❶ Relinquished by (signature)	Date 6/4/13	❷ Received by (signature)	Date 6/4/13		Total Number of Containers
Company ALTA ENVIRON	Time 1300	Company Jones Environmental	Time 1300		
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date	The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.	
Company	Time	Company	Time		

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:** **Client Ref. No.:**	D-0573 ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:** **Date Received:**	6/5/2013 6/5/2013
Project Name:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave. Van Nuys, CA	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used since previous sampling events determined this to be the appropriate purging volume.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity.

All samples were analyzed within 30 minutes of sampling.

Approval: 

Steve Jones, Ph.D.
Laboratory Manager

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	D-0573
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/5/2013
		Date Received:	6/5/2013
Project:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP12-5**	**VP12-15**	**VP13-5**	**VP13-15**	**VP6-5**		
JEL ID:	**D-0573-01**	**D-0573-02**	**D-0573-03**	**D-0573-04**	**D-0573-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	**0.039**	ND	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	**0.118**	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP12-5	VP12-15	VP13-5	VP13-15	VP6-5		
JEL ID:	D-0573-01	D-0573-02	D-0573-03	D-0573-04	D-0573-05	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	**0.184**	**0.529**	**0.203**	**1.13**	**0.651**	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	100%	97%	97%	103%	101%	75 - 125	
Toluene-d_8	87%	89%	91%	89%	85%	75 - 125	
4-Bromofluorobenzene	111%	101%	115%	118%	102%	75 - 125	
	D2-060513-D-0573_1	D2-060513-D-0573_1	D2-060513-D-0573_1	D2-060513-D-0573_1	D2-060513-D-0573_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:**	D-0573
		Client Ref. No.:	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/5/2013
		Date Received:	6/5/2013
Project:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave. Van Nuys, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP6-15	VP11-5	VP11-5 REP	VP11-15	VP10-15		
JEL ID:	D-0573-06	D-0573-07	D-0573-08	D-0573-09	D-0573-10	Practical Quantitation Limit	Units
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	**0.046**	ND	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP6-15	VP11-5	VP11-5 REP	VP11-15	VP10-15		
JEL ID:	D-0573-06	D-0573-07	D-0573-08	D-0573-09	D-0573-10	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	**0.964**	ND	ND	**0.068**	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	95%	98%	97%	91%	101%	75 - 125	
Toluene-d_8	88%	96%	83%	93%	86%	75 - 125	
4-Bromofluorobenzene	117%	105%	106%	117%	118%	75 - 125	
	D2-060513-D-0573_1	D2-060513-D-0573_1	D2-060513-D-0573_1	D2-060513-D-0573_1	D2-060513-D-0573_1		

ND= Not Detected

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:**	D-0573
		Client Ref. No.:	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/5/2013
		Date Received:	6/5/2013
Project:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave. Van Nuys, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**METHOD BLANK**	**SAMPLING BLANK**	**Practical Quantitation Limit**	**Units**
JEL ID:	**D-0573-11**	**D-0573-12**		
Analytes:				
Benzene	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	0.008	µg/L
Bromoform	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	0.008	µg/L
Chloroethane	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
Chloromethane	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	D-0573-11	D-0573-12	Practical Quantitation Limit	Units
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	0.008	µg/L
Freon 113	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	0.008	µg/L
Naphthalene	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	0.008	µg/L
Styrene	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	0.008	µg/L
Toluene	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	0.008	µg/L
Xylenes	ND	ND	0.008	µg/L
MTBE	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	0.040	µg/L
TIC:				
n-propanol	ND	ND	0.008	µg/L
n-pentane	ND	ND	0.008	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	80%	98%	75 - 125	
Toluene-d_8	116%	110%	75 - 125	
4-Bromofluorobenzene	95%	91%	75 - 125	
	D2-060513-D-0573_1	D2-060513-D-0573_1		

ND= Not Detected

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	D-0573
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/5/2013
		Date Received:	6/5/2013
Project:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** D2-060513-D-0573_1

JEL ID:	**D-0573-14**	**D-0573-15**			**D-0573-13**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	108%	111%	2.6%	70-130	96%	70-130
Benzene	102%	105%	2.7%	70-130	103%	70-130
Trichloroethylene	98%	106%	7.5%	70-130	105%	70-130
Toluene	104%	111%	6.9%	70-130	105%	70-130
Chlorobenzene	102%	110%	7.9%	70-130	111%	70-130
Surrogate Recovery:						
Dibromofluoromethane	81%	81%		75-125	83%	75-125
Toluene-d_8	104%	112%		75-125	103%	75-125
4-Bromofluorobenzene	89%	89%		75-125	93%	75-125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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Chain-of-Custody Record

Client: Alta Environmental Inc
Project Name: Tyrone
Project Address: 7600 Tyrone Ave, Van Nuys, CA
Project Contact: Kristyn Drake

Date: 06.05.13
Client Project #: ODWP-13-1198

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~200 cc/min
Shut in Test (Y) / N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: D-0573
Page 1 of 1
Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: TPH 8260B (VOCs + Oxys)			Magnehelic Vacuum (in/H_2O)	Number of Containers	Remarks/Special Instructions
VP12-5	1	589	6/5	0739	0747	D-0573-01	SG	X			<5	2	gas tight glass syringe
VP12-15	1	643		0751	0803	D-0573-02	SG	X			<5	2	
VP13-5	1	589		0806	0817	D-0573-03	SG	X			<5	2	
VP13-15	1	643		0820	0832	D-0573-04	SG	X			<5	2	
VP6-5	1	589		0835	0847	D0573-05	SG	X			<5	2	
VP6-15	1	643		0850	0903	D-0573-06	SG	X			<5	2	
VP11-5	1	589		0926	0943	D-0573-07	SG	X			<5	2	
VP11-5 REP	1	589		0928	0958	D-0573-08	SG	X			<5	2	
VP11-15	1	643		1002	1012	D-0573-09	SG	X			<5	2	
VP10-5	1	643	↓	1016	1026	D-0573-10	SG	X			<5	2	

Total Number of Containers

❶ Relinquished by (signature)	Date 6/5/13	❷ Received by (signature)	Date 06/05/13
Company ALTA ENVIRONMENTAL	Time 1100	Company Jones Environmental	Time 1100
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date
Company	Time	Company	Time

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Alta Environmental	**Report date:**	6/14/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:** **Client Ref. No.:**	ST-6995 LDWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/12/2013
		Date Received:	6/12/2013
Project Name:	Tyrone Property	**Date Analyzed:**	6/13/2013
Project Address:	1600 Tyrone Ave Van Nuys, CA	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Sampling – Soil Gas samples were collected in one liter summa canisters.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity.

All samples were analyzed within 30 minutes of sampling.

Approval: 

Steve Jones, Ph.D.
Laboratory Manager

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental	**Report date:**	6/14/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:** **Client Ref. No.:**	ST-6995 LDWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/12/2013
		Date Received:	6/12/2013
Project:	Tyrone Property	**Date Analyzed:**	6/13/2013
Project Address:	1600 Tyrone Ave Van Nuys, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SV16-5'	SV16-15'	SV16-5' REP		
JEL ID:	ST-6995-01	ST-6995-02	ST-6995-03	Practical Quantitation Limit	Units
Analytes:					
Benzene	ND	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SV16-5'	SV16-15'	SV16-5' REP		
JEL ID:	ST-6995-01	ST-6995-02	ST-6995-03	Practical Quantitation Limit	Units
Analytes:					
cis-1,3-Dichloropropene	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	ND	ND	ND	0.020	µg/L
Toluene	ND	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	0.020	µg/L
Xylenes	ND	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	0.100	µg/L
TIC:					
n-propanol	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1		
Surrogate Recoveries:				**QC Limits**	
Dibromofluoromethane	95%	95%	99%	75 - 125	
Toluene-d_8	96%	91%	96%	75 - 125	
4-Bromofluorobenzene	94%	86%	95%	75 - 125	
	B1-061313-ST-6995	B1-061313-ST-6995	B1-061313-ST-6995		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental	**Report date:**	6/14/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	ST-6995
	Long Beach, CA 90807	**Client Ref. No.:**	LDWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/12/2013
		Date Received:	6/12/2013
Project:	Tyrone Property	**Date Analyzed:**	6/13/2013
Project Address:	1600 Tyrone Ave	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	ST-6995-04	ST-6995-05	Practical Quantitation Limit	Units
Analytes:				
Benzene	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	0.020	µg/L
Bromoform	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	0.020	µg/L
Chloroethane	ND	ND	0.020	µg/L
Chloroform	ND	ND	0.020	µg/L
Chloromethane	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	ST-6995-04	ST-6995-05	Practical Quantitation Limit	Units
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	0.020	µg/L
Freon 113	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	0.020	µg/L
Naphthalene	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	0.020	µg/L
Styrene	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.020	µg/L
Tetrachloroethylene	ND	ND	0.020	µg/L
Toluene	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	0.020	µg/L
Xylenes	ND	ND	0.020	µg/L
MTBE	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	0.100	µg/L
TIC:				
n-propanol	ND	ND	0.020	µg/L
n-pentane	ND	ND	0.020	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	98%	98%	75 - 125	
Toluene-d_8	101%	96%	75 - 125	
4-Bromofluorobenzene	100%	99%	75 - 125	
	B1-061313-ST-6995	B1-061313-ST-6995		

ND= Not Detected

JONES ENVIRONMENTAL, INC.

P.O. BOX 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Alta Environmental	**Report date:**	6/14/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:**	ST-6995
		Client Ref. No.:	LDWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/12/2013
		Date Received:	6/12/2013
Project:	Tyrone Property	**Date Analyzed:**	6/13/2013
Project Address:	1600 Tyrone Ave Van Nuys, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** B1-061313-ST-6995

JEL ID:	**ST-6995-07**	**ST-6995-08**			**ST-6995-06**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	71%	67%	6.3%	70-130	76%	70-130
Benzene	100%	107%	6.1%	70-130	106%	70-130
Trichloroethylene	96%	98%	1.9%	70-130	100%	70-130
Toluene	98%	100%	2.7%	70-130	106%	70-130
Chlorobenzene	97%	101%	4.4%	70-130	104%	70-130
Surrogate Recovery:						
Dibromofluoromethane	98%	96%		75-125	84%	75-125
Toluene-d_8	97%	96%		75-125	101%	75-125
4-Bromofluorobenzene	98%	98%		75-125	82%	75-125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

JONES ENVIRONMENTAL, INC.
P.O. Box 5387
Fullerton, CA 92838
(714) 449-9937
Fax (714) 449-9685
www.jonesenvironmentallab.com

Chain-of-Custody Record

Client: Alta Environmental
Project Name: Tyrone Property
Project Address: 16000 Tyrone Ave, Van Nuys, CA
Project Contact: Kristyn Drake

Date: 6/12/13
Client Project #: LDWP-13-1198

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☒ Normal
- ☐ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: 200 cc/min
Shut In Test Y / N
Tracer:
- ☐ n-propanol
- ☐ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: ST6995
Page 1 of 1

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☐ no
Sealed ☐ yes ☐ no

Analysis Requested: 8260B - VOCs

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S); Sludge (SL); Aqueous (A); Soil Gas (SG)	Analysis Requested	Miscellaneous Vacuum (in/H2O)	Number of Containers	Remarks/Special Instructions
SV16-5'		1	6/12/13	1422			SG	X	-5	1	SUMMA (S#: 1490)
SV16-15'		1	↓	1410	~~1416~~ (1420)		SG	X	-5	1	SUMMA
SV16-5' REP		1	↓	1428			SG	X	-5	1	SUMMA

❶ Relinquished by (signature)		Date: 6/12/13	❷ Received by (signature)		Date: 6/12/13	3	Total Number of Containers
Company: Alta Environmental		Time: 1415	Company: JEL		Time: 1415		
❸ Relinquished by (signature)		Date	❹ Received by Laboratory (signature)		Date		
Company		Time	Company		Time		

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

July 25, 2013

George Faeustle
Los Angeles Department of Water and Power
Environmental Affairs
111 N. Hope Street, Room 1050
Los Angeles, California 92649

Re: Surface Soil and Soil Gas Sampling Report, Tyrone Site, 7600 Tyrone Avenue, Van Nuys, California 91405

Alta Environmental Project No. LDWP-13-1198

Dear Mr. Faeustle:

Alta Environmental is pleased to present the Surface Soil and Soil Gas Sampling Report for the Tyrone Site. Please refer to the report for our findings and conclusions.

If you have any questions, please call me at (562) 495-5777.

For and on behalf of Alta Environmental

Steven Morrill

Steve Morrill, PE

Senior Project Manager/Engineer III

SURFACE SOIL AND SOIL GAS SAMPLING REPORT

Tyrone Site
7600 Tyrone Avenue
Van Nuys, California 91405

Prepared for

City of Los Angeles Department of Water and Power
Environmental Affairs
111 N. Hope Street, Room 1050
Los Angeles, California, 90012

LDWP-13-1198
July 25, 2013

Alta Environmental
3777 Long Beach Boulevard, Annex Building
Long Beach, CA 90807 United States of America
T (562) 495 5777 F (562) 495 5877 www.altaenviron.com

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CONTENTS

SIGNATORY

This report has been prepared by

Kristyn Drake
Associate Consultant II

Steve Morrill, PE
Senior Project Manager/Senior Engineer III

EXECUTIVE SUMMARY

Alta Environmental (Alta) conducted a Surface Soil and Soil Gas Investigation for the Los Angeles Department of Water and Power (LADWP) on the former Quest Diagnostics property located at 7600 Tyrone Avenue, Van Nuys, California (the “Site). The Site is unoccupied and is listed for sale as a commercial/industrial property. The purpose of the investigation was to assess potential hazardous substance contamination at the Site prior to site acquisition. A Site Location Map is provided as Figure 1.

Site Description

The Site was an unoccupied bioscience laboratory prior to the investigation and consisted of nine buildings, parking areas, facility equipment, and chemical and hazardous material storage areas on the western and central section of the Site, and a vacant field containing an abandoned residential dwelling, bunny house, construction equipment, and construction material storage areas on the eastern portion of the Site. During field implementation of the investigation, the building structures on the Site were under active asbestos and lead-based paint abatement and demolition. Historical uses at the Site included agricultural activities up to 1965, when the initial building construction began at the Site. A Site Layout is provided as Figure 2.

Previous Investigations

Past environmental investigations at the Site included a Phase I Environmental Site Assessment (ESA) prepared for Quest Diagnostics, Inc. (ODIC, October 22, 2010), a Phase I ESA prepared for Shubin-Nadal Realty Investors (AMEC, August 22, 2012a), and a Screening Level Phase II Investigation prepared for Shubin-Nadal Realty Investors (AMEC, September 28, 2012b).

Based on the results of the Phase I ESAs (ODIC, 2010 and AMEC, 2012a) and Screening Level Phase II Investigation (AMEC, 2012b) the following conclusions were made:

- The soil gas data do not suggest a significant release has occurred at the site that would require mitigation for commercial development. Soil sample data suggest metals are not present at concentrations indicative of environmental impact and generally are consistent with typical background concentrations. The few low concentrations of volatile organic compounds (VOCs) and relatively low and heavier end hydrocarbons detected in shallow soil do not suggest significant impacts are present in the areas investigated (AMEC, 2012b).
- Based on information obtained from other properties in the general site vicinity of the Site, the anticipated depth to groundwater beneath the site is assumed to be between 200 and 250 feet below ground surface (bgs) (Regional Water Quality Control Board’s [RWQCB’s] online Geotracker database).

Environmental Concerns and Investigation Objectives

The primary objective of this investigation was to assess any subsurface impacts to the soil and soil gas at the Site from former use as a bioscience laboratory, historical structures, and former agricultural use.

Shallow Soil Matrix and Soil Gas Sampling

On May 28 and 29, 2013, a total of 30 shallow borings (B1 – B30) were drilled at the Site. All soil borings were continuously cored from surface to the terminus depth of 3 feet bgs using a direct-push drill rig. Soil matrix samples were collected from each boring at 1, 2, and 3 feet bgs using a core sampler lined with acetate sleeves. Soil boring locations are presented in Figure 3.

Following sample collection, the sample containers were properly capped, sealed, labeled, and stored in a chilled ice chest for transport under chain-of-custody documentation for analysis or archiving to LADWP's State of California-certified laboratory (Certificate No. 1207) located in Los Angeles, California. All soil samples designated for volatile analysis were preserved using in-field preservation kits in accordance with EPA Method 5035. The 1 and 3 foot samples from each boring were variously analyzed for Title 22 Metals by EPA Method 6010B, organochlorine pesticides (OCPs) by EPA Method 8081A, polychlorinated biphenyls (PCBs) by EPA Method 8082, total petroleum hydrocarbons (TPH) by EPA Method 8015M, semivolatile organic compounds (SVOCs) by EPA Method 8270C, and VOCs by EPA Method 8260B. The shallow soil sampling and analysis plan is presented as Table 1.

On May 30 and 31, 2013 soil gas probes were installed at 15 boring locations (VP1 through VP15) at 5 and 15 feet bgs. On June 4 and 5, 2013, the soil gas probes were sampled and analyzed by Jones Environmental, Inc.'s on-site mobile laboratory. Samples were not collected from gas probes at VP4 and VP5 due to inaccessibility from stockpiled demolition debris.

On June 12, 2013, soil gas probes were installed in boring location VP16 in the vicinity of the former septic tank/cesspool at 5 and 15 feet bgs. Following probe installation and a minimum 2 hours of equilibration time, the gas probes at VP16 were sampled using SUMMA® canisters and analyzed by Jones Environmental's fixed laboratory.

All soil gas samples collected for this investigation were analyzed for VOCs by EPA Method 8260B by Jones Environmental Laboratory. The soil gas samples included 28 primary samples, two (2) purge volume samples, and three (3) field replicates for a total of 33 soil gas samples. The soil gas sampling and analysis plan is presented as Table 2. Soil gas boring locations are presented in Figure 3.

Findings

The following surface soil sample results are presented in milligrams per kilogram (mg/kg) and micrograms per kilogram (µg/kg) as identified in Tables 3 through 8. The following soil gas sample results are presented in micrograms per liter (µg/L) as identified in Table 9. Some data have been qualified by the laboratory as "J-flagged" indicating that the detected concentration is an estimated value between the method detection limit (MDL) and the practical quantitation limit (PQL).

- No VOCs or PCBs were detected in any of the surface soil samples submitted for analysis.
- Surface soil samples variously exhibited detected concentrations of:
    - Title 22 Metals including antimony (not detected above the laboratory reporting limit [ND] to 4.2J mg/kg), barium (99 to 300 mg/kg), cadmium (1.8J to 4.1 mg/kg), chromium (10 to 23 mg/kg), cobalt (7.8 to 21 mg/kg), copper (7.7J to 22 mg/kg), lead (6.7 to 42 mg/kg), molybdenum (ND to 0.50J mg/kg), nickel (12.3 to 24 mg/kg), vanadium (19 to 38 mg/kg), zinc (36 to 124 mg/kg), and mercury (ND to 0.048 mg/kg). In addition, silver was detected in one sample (B22-1') at 7.4J mg/kg;
    - SVOCs including benzo(g,h,i)perylene (ND to 0.11J mg/kg), butyl benzyl phthalate (ND to 0.29J mg/kg), and indeno(1,2,3-cd)pyrene (ND to 0.17J mg/kg). In addition, dibenzo(a,h)antrhacene and pentachlorophenol were detected in one sample (B21-1') at 0.099J mg/kg and 0.39J mg/kg, respectively;

  - OCPs including 2,4-DDD (ND to 36 µg/kg), 2,4-DDT (ND to 190 µg/kg), 4,4-DDE (ND to 740 µg/kg), 4,4-DDT (ND to 270 µg/kg), beta-hexachlorocyclohexane (beta-BHC; ND to 42 µg/kg), and toxaphene (ND to 2,400 µg/kg); and
  - TPH as total extractable petroleum hydrocarbons (TEPH; ND to 60.6 mg/kg [as motor oil]);
- Soil gas samples exhibited detected concentrations of VOCs including carbon tetrachloride (ND to 0.035 µg/L), chloroform (ND to 0.896 µg/L), Freon 113 (ND to 2.82 µg/L), tetrachloroethylene (PCE; ND to 0.059 µg/L), and trichloroethylene (TCE; ND to 2.89 µg/L). In addition, 1,1-dichloroethene (1,1-DCE) was detected in one sample (VP13-15') at a concentration of 0.118 µg/L.

Conclusions

The following conclusions have been made based on the shallow soil and soil gas sample results:

- Concentrations of Title 22 Metals and SVOCs in soil are below the Environmental Protection Agency's, Pacific Southwest Region 9, Regional Screening Levels (RSLs) developed for a commercial/industrial scenario.
- Concentrations of OCPs in soil are below the California Environmental Protection Agency (Cal/EPA), Office of Environmental Health Hazard Assessment (OEHHA), residential and commercial/industrial California Human Health Screening Levels (CHHSLs), with the exception of toxaphene detected in one sample (B16-3'; 2,400 µg/kg), which exceeded the commercial/industrial CHHSL of 1,800 µg/kg.
- Concentrations of TPH detected in soil are below the Los Angeles California Regional Water Quality Control Board's (LARWQCB) maximum soil screening levels above drinking water aquifers greater than 150 feet bgs (LARWQCB, Table 4-1, May 1996) for TPH as gasoline (1,000 mg/kg), TPH as diesel (10,000 mg/kg), and TPH as motor oil (50,000 mg/kg).
- Concentrations of VOCs detected in soil gas are below the Cal/EPA (2010) CHHSLs for shallow soil gas (engineered fill) in a commercial/industrial land use scenario, for carbon tetrachloride (0.21 µg/L), PCE (1.6 µg/L), and TCE (4.4 µg/L). No CHHSLs are documented by Cal/EPA for the VOCs 1,1-DCE, Freon 113, and chloroform in soil gas.

It should be noted that the RSLs, CHHSLs, and Maximum Soil Screening Levels have been used as a general comparison, and are not regulatory standards and/or acceptable concentrations. These levels are used as benchmark values to determine whether further assessment and evaluation of the constituents detected in soil and soil gas, are required for the Site.

Recommendations

Based on analytical data, and the findings of this investigation, additional assessment work is not warranted at this time. However, any unknown subsurface structures or potentially contaminated soil encountered during site demolition and construction should be investigated for potential hazardous substances impacts to the property.

Additional assessment around sample location B16 at 3 feet bgs (B16-3') may be warranted in order to define the lateral and vertical extent of OCP (toxaphene) impacts in the area as necessary, and where disturbance of shallow soil in that area is anticipated during any site redevelopment activities.

1 INTRODUCTION

Alta Environmental, on behalf of the City of Los Angeles Department of Water and Power (LADWP), has prepared this Surface Soil and Soil Gas Sampling Report for the Tyrone Property (Site), a 17 acre property located at 7600 Tyrone Avenue, Van Nuys, California. A Site Location Map and Site Layout Map are provided as Figures 1 and 2, respectively.

The primary objective of the investigation was to assess the current surface soil conditions at the Site for potential chemicals of concern, including Title 22 Metals, organochlorine pesticides (OCPs), polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPH), semivolatile organic compounds (SVOCs), and volatile organic compounds (VOCs). A Soil Sampling and Analysis Plan (Alta Environmental, April 26, 2013) was completed and submitted to the LADWP for review. In addition, an investigation was conducted in the vicinity of the onsite structures to assess the current soil gas conditions at the Site for potential VOC impacts. The LADWP is considering acquisition of the Site.

2 BACKGROUND

2.1 Site Description

The Site is located at 7600 Tyrone Avenue, in Van Nuys, California. A Site Location Map is presented as Figure 1. The eastern portion of the Site consists of an approximately 4 acre vacant lot that is unpaved. The remaining western portion of the Site was under demolition and construction activities by the owner at the time of the investigation. A Site Layout Map is presented as Figure 2.

The Site is currently unoccupied but was previously developed with a bioscience laboratory on the western and central section that consisted of nine buildings, parking areas, facility equipment, and chemical and hazardous material storage areas. The eastern portion of the Site contained a vacant field (approximately four acres) containing an abandoned residential-type dwelling, bunny house, construction equipment, and construction material storage areas. The vacant field was also used as a farm for laboratory animals. Historical uses at the Site include agricultural activities up to 1965, when the initial building construction began at the Site.

2.2 Previous Site Investigations

Past environmental investigations at the Site included a Phase I Environmental Site Assessment (ESA) prepared for Quest Diagnostics, Inc. (ODIC, October 22, 2010), a Phase I ESA prepared for Shubin-Nadal Realty Investors (AMEC, August 22, 2012a), and a Screening Level Phase II Investigation prepared for Shubin-Nadal Realty Investors (AMEC, September 28, 2012b).

Based on the results of the Phase I ESAs (ODIC, 2010 and AMEC, 2012a) and Screening Level Phase II Investigation (AMEC, 2012b) the following conclusions were made:

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detected in shallow soil do not suggest significant impacts are present in the areas investigated (AMEC, 2012b).

- Based on information obtained from other properties in the general site vicinity of the Site, the anticipated depth to groundwater beneath the site is assumed to be between 200 and 250 feet below ground surface (bgs) (Regional Water Quality Control Board's [RWQCB's] online Geotracker database).

3 REGIONAL GEOLOGY AND HYDROGEOLOGIC SETTING

The following Site geologic and hydrogeologic setting information has been adapted from AMEC's Phase I Environmental Site Assessment Report (AMEC, 2012a).

3.1 Geologic Setting

The subject property is located in the San Fernando Valley Groundwater Basin (SFGWB). This basin is bounded on the north and northeast by the San Gabriel Mountains, the north and northwest by the Santa Susana Mountains, on the south by the Santa Monica Mountains and Chalk Hills, on the west by the Simi Hills, and the east by the San Rafael Hills (California Department of Water Resources [CDWR], 2003). Water bearing units within the SFGWB consist of the lower Pleistocene Saugus Formation, and Pleistocene and Holocene age alluvium.

Alluvium of Holocene age consists mainly of coarse-grained unsorted gravel and sand deposited by alluvial fans that originate in the surrounding mountains and hills (CDWR, 2003). Maximum thicknesses throughout the basin range from 100 feet in the north to 400 feet in the east to 800 feet in the west and a maximum thickness of 900 feet near Burbank, California (CDWR, 2003). Pleistocene age alluvium is dominated by highly permeable, unconsolidated coarse-grained alluvial fan deposits interspersed with lower permeability paleosols (CDWR, 2003).

The Saugus Formation is made up of shallow and continental marine deposits; mainly conglomerates, sands, silts, and clays (CDWR, 2003). This formation is between 2000 and 3000 feet thick in the western and eastern margins of the basin, with its greatest thickness in the center of the basin around 6,400 feet. There are many structural features within the San Fernando Valley Basin, especially on the north side of the basin; however, there is only one that is near the subject property. The closest feature is the Northridge Hills fault, which trends northwest to southeast and is located approximately 2.4 miles northwest of the subject site (AMEC, 2012a).

During the soil and soil gas sampling conducted on May 28, 2013 through June 12, 2013, soils encountered by Alta Environmental included poorly graded fine grained sands, silty sands, sandy silts, and silts.

3.2 Hydrogeologic Setting

The general basin trend in groundwater flow is east-southeast towards the Los Angeles Narrows and into the Central Subbasin of the Coastal Plain of Los Angeles Basin with local depth to water of approximately 200 feet bgs (ULARA, 2012).

No groundwater wells were identified at the site; however, AMEC identified one groundwater well at 7777 Lemona Avenue and two wells at 7803 Lemona Avenue in Van Nuys, all of which are located between ½ to

¾ mile west of the site (ENSR, 2005). Depth to groundwater in these wells was measured at approximately 250 feet bgs on May 10, 2012 with a reported groundwater flow direction to the southeast. Surface elevations at the Lemona Avenue sites (approximately 779 feet above mean sea level [msl]) are similar to the subject property (770 msl); therefore depth to groundwater at the subject property is expected to be within a similar range at greater than 200 feet bgs (AMEC, 2012a).

4 SURFACE SOIL SAMPLING AND SOIL GAS INVESTIGATION

4.1 Pre-Field Activities

The following was conducted prior to the field investigation activities:

- A site-specific health and safety plan (HASP) was prepared in general accordance with the guidelines set forth in Title 8 of the California Code of Regulations (CCR), Section 5192 (8 CCR 5192), and Title 29 of the Code of Federal Regulations (CFR) Part 1926.650 (29 CFR 1926.650). All field personnel reviewed and signed the HASP prior to beginning the field work.
- Underground Service Alert (USA) was notified on May 3, 2013, a minimum of 48-hours prior to the start of the field sampling activities (USA ticket # A31231015-00A).

4.2 Geophysical Survey

On May 6, 2013, through May 17, 2013 Alta Environmental contracted with Spectrum Geophysics to perform a geophysical survey of the northeast portion of the Site (approximately 1 acre) and clearance of the soil gas boring locations around the vicinity of the existing buildings in the western portion of the Site.

During the geophysical survey of the northeast portion of the Site, an EM-61 high-sensitivity metal detector was used in an effort to identify areas where metallic objects (ie. USTs, metal debris, and conduits) may have been buried. Once identified, these EM-61 anomalies were investigated further using GPR and EM-utility locating methods.

A total of fifteen EM-61 anomalies were detected in the subsurface throughout the Site. The anomalies appeared to be associated with various buried construction debris and long piping runs, including the storm drain channel running along the northern boundary of the property. Various linear trending anomalies (water/sewer and gas connections) were also identified throughout the survey area with the shallow metal detector and GPR units.

It should be noted that the location of subsurface objects and utilities is dependent upon the recognition of physical phenomena at the ground surface. These phenomena can be magnetic fields or electro-magnetic waves that give rise to a surface expression which in turn is interpreted as representative of subsurface objects. These waves, however, may be attenuated and/or distorted by a number of factors including soil moisture, corrosion, and proximity to other surface and subsurface facilities. At the time of the survey, various surface interferences, including soil stockpiles, stockpiled construction debris, metallic debris, reinforced concrete pads, and metal fencing, existed at the Site. A copy of the geophysical survey report is provided as Appendix A.

4.3 Soil Matrix Sampling and Analysis

On May 28 and 29, 2013, a total of 30 shallow borings (B1 – B30) were drilled at the Site. All soil borings were continuously cored from surface to the terminus depth of 3 feet bgs using a direct-push drill rig. Soil matrix samples were collected from each boring at 1, 2, and 3 feet bgs using a core sampler lined with acetate sleeves. Soil boring locations are presented in Figure 3 (Boring Location Map).

Following sample collection, the sample containers were properly capped, sealed, labeled, and stored in a chilled ice chest for transport under chain-of-custody documentation for analysis or archiving to LADWP's State of California-certified laboratory (Certificate No. 1207) located in Los Angeles, California. All soil samples designated for volatile analysis were preserved using in-field preservation kits in accordance with EPA Method 5035. The 1 and 3 foot samples from each boring were variously analyzed for Title 22 Metals by EPA Method 6010B, OCPs by EPA Method 8081A, PCBs by EPA Method 8082, TPH by EPA Method 8015M, SVOCs by EPA Method 8270C, and VOCs by EPA Method 8260B. The shallow soil sampling and analysis plan is presented as Table 1.

Analytical results for soil and soil gas sampling are provided in Section 5 (Analytical Results). The laboratory analytical report and chain-of-custody documentation for the surface soil samples are presented in Appendix B.

4.4 Soil Gas Sampling and Analysis

On May 30 and 31, 2013 soil gas probes were installed at 15 boring locations (VP1 through VP15) at 5 and 15 feet bgs. On June 4 and 5, 2013, the soil gas probes were sampled and analyzed by Jones Environmental, Inc.'s on-site mobile laboratory. Samples were not collected from gas probes at VP4 and VP5 due to inaccessibility from stockpiled demolition debris. On June 12, 2013, soil gas probes were installed in boring location VP16 in the vicinity of the former septic tank/cesspool at 5 and 15 feet bgs. Following probe installation and a minimum 2 hours of equilibration time, the gas probes at VP16 were sampled using SUMMA® canisters and analyzed by the Jones Environmental fixed laboratory.

Soil Gas boring locations are presented in Figure 3. The gas probe installation, sampling, and analysis are summarized as follows:

Probe Installation: At each boring location, soil gas probes were installed at five (5) and 15 feet bgs. Each soil gas probe was placed within a one-foot sand pack. One foot of dry granular bentonite was placed on top of each sand pack to preclude the infiltration of hydrated bentonite grout. The boreholes were then grouted between probes and to the surface with hydrated bentonite. Nylaflo® tubing (¼ inch) was connected from the gas point to the surface. The end of the tubing was labeled with the gas well number, depth, and date and time of construction, and a three-way valve was installed to eliminate ambient air diffusion into the well.

Purge Volume Test: A three-volume purge test (one [1], three [3], and ten [10] purge volumes) was conducted at sampling location VP3-15′ to establish the optimal purge volume to be used for the probes in accordance with the Department of Toxic Substances Control (DTSC) and Los Angeles/San Francisco Regional Water Quality Control Boards (RWQCB) *Advisory – Active Soil Gas Investigations (April 2012)* protocol. The purge flow rate was approximately 200 milliliters per minute (mL/min). Based on the purge volume test, the optimal purge volume was determined to be one (1) due to the highest detections of VOCs.

Sample Collection: Soil gas samples were collected from each probe following the removal of the appropriate purge volume in 100-milliliter glass air-tight syringes or SUMMA canisters. The sample syringes were not exposed to any sunlight that may degrade light-sensitive VOCs. Soil gas samples were collected at a sampling rate of 200 ml/min or less. The samples were immediately transferred to the on-site mobile laboratory for direct injection into a gas chromatograph, or transported to the fixed laboratory for analysis in accordance with the procedures presented in the DTSC and Los Angeles/San Francisco RWQCB's *Advisory – Active Soil Gas Investigations (April 2012)*, which are consistent with EPA Method 8260B. All soil gas samples collected were documented on a chain-of-custody form for the soil gas analysis.

Leak Test: A leak test was conducted at each soil gas probe location to determine whether leakage was present. A mixture of n-propanol and n-pentane was used as the source of the tracer compound. The tracer gas compound was not detected in any of the soil gas samples.

Mobile Laboratory and Fixed Laboratory Analysis: The soil gas samples collected for this investigation were analyzed for VOCs by EPA Method 8260B by an on-site mobile and fixed laboratory. The soil gas samples included 28 primary samples, two (2) purge volume samples, and three (3) field replicates for a total of 33 soil gas samples. The soil gas sampling and analysis plan is presented as Table 2.

The laboratory analytical report and chain-of-custody documentation for the soil gas samples are presented in Appendix B.

4.5 Equipment Decontamination

All reusable drilling and sampling equipment were cleaned before each use utilizing a three-bucket wash consisting of a non-phosphate detergent wash, tap water, and distilled water.

4.6 Field Observations

No odors or staining were observed in the soil samples collected during the investigation. In addition, no (0.0 parts per million [ppm]) photo-ionization detector (PID) readings were observed in the screened soil samples. No groundwater was encountered in the borings to a maximum depth of 15 feet bgs.

4.7 Site Geology

The soils encountered during the surface soil sampling and soil gas probe installation consisted of poorly graded fine grained sands, silty sands, sandy silts, and silts. Soil borings were logged continuously using the Unified Soils Classification System (UCSC) and screened with a PID calibrated to 50 parts per million (ppm) as hexane. The boring logs for each soil boring are provided in Appendix C.

5 ANALYTICAL RESULTS

The following surface soil sample results are presented in milligrams per kilogram (mg/kg) and micrograms per kilogram (µg/kg) as identified in Tables 3 through 8. The following soil gas sample results are presented in micrograms per liter (µg/L) as identified in Table 9. Some data have been qualified by the laboratory as "J-flagged" indicating that the detected concentration is an estimated value between the method detection limit (MDL) and the practical quantitation limit (PQL).

- No VOCs or PCBs were detected in any of the surface soil samples submitted for analysis.

- Surface soil samples variously exhibited detected concentrations of:
  - Title 22 Metals including antimony (not detected above the laboratory reporting limit [ND] to 4.2J mg/kg), barium (99 to 300 mg/kg), cadmium (1.8J to 4.1 mg/kg), chromium (10 to 23 mg/kg), cobalt (7.8 to 21 mg/kg), copper (7.7J to 22 mg/kg), lead (6.7 to 42 mg/kg), molybdenum (ND to 0.50J), nickel (12.3 to 24 mg/kg), vanadium (19 to 38 mg/kg), zinc (36 to 124 mg/kg), and mercury (ND to 0.048 mg/kg). In addition, silver was detected in one sample (B22-1') at 7.4J mg/kg;
  - SVOCs including benzo(g,h,i)perylene (ND to 0.11J mg/kg), butyl benzyl phthalate (ND to 0.29J mg/kg), and indeno(1,2,3-cd)pyrene (ND to 0.17J mg/kg). In addition, dibenzo(a,h)antrhacene and pentachlorophenol were detected in one sample (B21-1') at 0.099J mg/kg and 0.39J mg/kg, respectively;
  - OCPs including 2,4-DDD (ND to 36 μg/kg), 2,4-DDT (ND to 190 μg/kg), 4,4-DDE (ND to 740 μg/kg), 4,4-DDT (ND to 270 μg/kg), beta-hexachlorocyclohexane (beta-BHC; ND to 42 μg/kg), and toxaphene (ND to 2,400 μg/kg); and
  - TPH as total extractable petroleum hydrocarbons (TEPH; ND to 60.6 mg/kg [as motor oil]);
- Soil gas samples exhibited detected concentrations of VOCs including carbon tetrachloride (ND to 0.035 μg/L), chloroform (ND to 0.896 μg/L), Freon 113 (ND to 2.82 μg/L), tetrachloroethylene (PCE; ND to 0.059 μg/L), and trichloroethylene (TCE; ND to 2.89 μg/L). In addition, 1,1-dichloroethene (1,1-DCE) was detected in one sample (VP13-15') at a concentration of 0.118 μg/L.

6 CONCLUSIONS

The surface soil and soil gas investigation completed at the Site between May 28, 2013 and June 12, 2013 included the advancement of 30 surface soil borings and 16 soil gas borings. Based on the shallow soil sample and the soil gas sample analytical results, Alta Environmental makes the following conclusions:

- Concentrations of Title 22 Metals and SVOCs in soil are below the California Environmental Protection Agency's (CalEPA, Region 9) Regional Screening Levels (RSLs) developed for a commercial/industrial scenario.
- Concentrations of OCPs in soil are below the Cal/EPA, Office of Environmental Health Hazard Assessment (OEHHA), residential and commercial/industrial California Human Health Screening Levels (CHHSLs), with the exception of toxaphene detected in one sample (B16-3'; 2,400 μg/kg), which exceeded the commercial/industrial CHHSL of 1,800 μg/kg.
- Concentrations of TPH detected in soil are below the Los Angeles California Regional Water Quality Control Board's (LARWQCB) maximum soil screening levels above drinking water aquifers greater than 150 feet bgs (LARWQCB, Table 4-1, May 1996) for TPH as gasoline (1,000 mg/kg), TPH as diesel (10,000 mg/kg), and TPH as motor oil (50,000 mg/kg).
- Concentrations of VOCs detected in soil gas are below the Cal/EPA (2010) CHHSLs for shallow soil gas (engineered fill) in a commercial/industrial land use scenario, for carbon tetrachloride (0.21 μg/L), PCE (1.6 μg/L), and TCE (4.4 μg/L). No CHHSLs are documented by OEHHA/CalEPA for the VOCs 1,1-DCE, Freon 113, and chloroform in soil gas.

It should be noted that the RSLs, CHHSLs, and Maximum Soil Screening Levels have been used as a general comparison, and are not regulatory standards and/or acceptable concentrations. These levels are used as benchmark values to determine whether further assessment and evaluation of the constituents detected in soil and soil gas, are required for the Site.

7 RECOMMENDATIONS

Based on analytical data, and the findings of this investigation, additional assessment work is not warranted at this time. However, any unknown subsurface structures or potentially contaminated soil encountered during site demolition and construction should be investigated for potential hazardous substances impacts to the property.

Additional assessment around sample location B16 at 3 feet bgs (B16-3') may be warranted in order to define the lateral and vertical extent of OCP (toxaphene) impacts in the area as necessary, and where disturbance of shallow soil in that area is anticipated during any site redevelopment activities.

8 ASSUMPTIONS AND LIMITATIONS

This report was prepared exclusively for use by the City of Los Angeles Department of Water and Power, and may not be relied upon by any other person or entity without Alta Environmental's express written permission. The information, conclusions and recommendations described in this report apply to conditions existing at certain locations when services were performed and are intended only for the specific purposes, locations, time frames and project parameters indicated. Alta Environmental cannot be responsible for the impact of any charges in environmental standards, practices or regulations after performance of services.

In performing our professional services, we have applied present engineering and scientific judgement and used a level of effort consistent with the current standard of practice for similar types of studies.

As applicable, Alta Environmental has relied in good faith upon representations and information furnished by individuals with respect to operations and existing property conditions, to the extent that they have not been contradicted by data obtained from other sources. Accordingly, Alta Environmental accepts no responsibility for any deficiencies, omissions, misrepresentations, or fraudulent acts of persons interviewed.

Alta Environmental will not accept any liability for loss, injury claim, or damage arising directly or indirectly from any use or reliance on this report. Alta Environmental makes no warranty, expressed or implied.

This report is issued with the understanding that the client, the property owner, or its representative is responsible for ensuring that the information, conclusions, and recommendations contained herein are brought to the attention of the appropriate regulatory agencies, as required.

9 REFERNCES

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7. California Regional Water Quality Control Board, Los Angeles Region (LARWQCB), *Interim Site Assessment and Cleanup Guidebook, May 1996 Guidance for VOC-impacted Sites Soil Screening Levels,* Table 4-1: Maximum Soil Screening Levels (mg/kg) for TPH and BTEX above Drinking Water Aquifers. May, 1996.
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Tables

Tables 1 through 9

TABLE 1
Surface Soil Sample and Analysis Plan
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Boring Nos.	Sample Rationale	Analytical Program
B1 – B12	Lead based paint from existing and historic structures.	Lead (6010B)
B13 – B20	Former agriculture activities.	Arsenic (6010B)
		OCPs (8081A)
B21 – B24	Various surface soil stains, equipment storage, and hazardous waste storage.	Metals (6010B/7471A)
		TPH Full Scan (8015M)
		SVOCs (8270C)
		PCBs (8082)
B25 – B28	Import soil.	Metals (6010B/7471A)
		TPH Full Scan (8015M)
		VOCs (8260B)
		SVOCs (8270C)
		PCBs (8082)
B29 – B30	Railroad ties and saw dust piles.	TPH diesel/oil (8015M)
		SVOCs (8270C)

NOTES:
OCPs – Organochlorine Pesticides by EPA Method 8081A
PCBs – Polychlorinated Biphenyls by EPA Method 8082
VOCs – Volatile Organic Compounds by EPA Method 8260B
SVOCs – Semi Volatile Organic Compounds by EPA Method 8270C
Metals – Title 22 Metals by EPA Method 6010B/7471A
TPH Full Scan – Total Petroleum Hydrocarbons as gasoline, diesel, and oil by EPA Method 8015M
TPH diesel/oil – Total Petroleum Hydrocarbons as diesel and oil by EPA Method 8015M
Lead – Lead by EPA Method 6010B
Arsenic – Arsenic by EPA Method 6010B

TABLE 2
Soil Gas Sampling and Analysis Plan
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID	Sample Depth (ft. bgs)	Surface Type	Sampling Method	Sample Rationale	Analytical Program
VP1	5 15	Asphalt and/or concrete	Geoprobe/ Direct Push	Emergency generator location, east side of Building G	VOCs
VP2	5 15	Planter Area - Unpaved	Geoprobe/ Direct Push	Floor drain, along perimeter of Building F	VOCs
VP3	5 15	Asphalt and/or concrete	Geoprobe/ Direct Push	Emergency generator, rinsing area, uncovered floor drain, potential location of "floor drain blank"	VOCs
VP4	5 15	Asphalt and/or concrete	Geoprobe/ Direct Push	Former diesel generator	VOCs
VP5	5 15	Asphalt and/or concrete	Geoprobe/ Direct Push	Miscelaneous storage area, unknown buckets of liquid	VOCs
VP6	5 15	Asphalt and/or concrete	Geoprobe/ Direct Push	Former diesel generator and boilers	VOCs
VP7	5 15	Planter Area - Unpaved	Geoprobe/ Direct Push	Floor drains, along perimeter of Building C	VOCs
VP8	5 15	Asphalt and/or concrete	Geoprobe/ Direct Push	Floor drains, along perimeter of Building C	VOCs
VP9	5 15	Planter Area - Unpaved	Geoprobe/ Direct Push	Second boring along perimeter of Building F	VOCs
VP10	5 15	Planter Area - Unpaved	Geoprobe/ Direct Push	One of two borings along perimeter of Building A; side of fume hoods	VOCs
VP11	5 15	Planter Area - Unpaved	Geoprobe/ Direct Push	Second of two borings along perimeter of Building A; side of fume hoods	VOCs
VP12	5 15	Planter Area - Unpaved	Geoprobe/ Direct Push	South side of Building D	VOCs
VP13	5 15	Planter Area - Unpaved	Geoprobe/ Direct Push	South side of Building E	VOCs
VP14	5 15	Asphalt and/or concrete	Geoprobe/ Direct Push	Perimeter of Building G	VOCs
VP15	5 15	Asphalt and/or concrete	Geoprobe/ Direct Push	Perimeter of Building G	VOCs
VP16	5 15	Unpaved	Geoprobe/ Direct Push	Vicinity of Former Septic Tank/Cesspool	VOCs

Notes:

VOCs analysis analyzed by EPA Method 8260B.
bgs – below ground surface

TABLE 3
Shallow Soil Sample Results - Title 22 Metals
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID		Title 22 Metals by EPA Method 6010B/7471A (mg/kg)																
	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
	MDL (mg/kg):	5.0	5.0	5.0	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.00002
	RL (mg/kg):	5.0	5.0	5.0	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0001
RSLs[1] (mg/kg):	Resident.	310	0.39	15,000	160	70	180,000*	23	3,100	400	390	1,500	390	390	1.6	390	23,000	10
	Comm./Indust.	4,100	1.60	190,000	2,000	800	180,000*	300	41,000	800	5,100	20,000	5,100	5,100	20	5,200	310,000	43
B1-1'	5/28/2013	•	•	•	•	•	•	•	•	9.8	•	•	•	•	•	•	•	•
B1-3'	5/28/2013	•	•	•	•	•	•	•	•	12	•	•	•	•	•	•	•	•
B2-1'	5/28/2013	•	•	•	•	•	•	•	•	11	•	•	•	•	•	•	•	•
B2-3'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B3-1'	5/28/2013	•	•	•	•	•	•	•	•	12	•	•	•	•	•	•	•	•
B3-3'	5/28/2013	•	•	•	•	•	•	•	•	12	•	•	•	•	•	•	•	•
B4-1'	5/28/2013	•	•	•	•	•	•	•	•	11	•	•	•	•	•	•	•	•
B4-3'	5/28/2013	•	•	•	•	•	•	•	•	12	•	•	•	•	•	•	•	•
B5-1'	5/28/2013	•	•	•	•	•	•	•	•	52	•	•	•	•	•	•	•	•
B5-3'	5/28/2013	•	•	•	•	•	•	•	•	11	•	•	•	•	•	•	•	•
B6-1'	5/28/2013	•	•	•	•	•	•	•	•	5.7	•	•	•	•	•	•	•	•
B6-3'	5/28/2013	•	•	•	•	•	•	•	•	10	•	•	•	•	•	•	•	•
B7-1'	5/28/2013	•	•	•	•	•	•	•	•	50	•	•	•	•	•	•	•	•
B7-3'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B8-1'	5/28/2013	•	•	•	•	•	•	•	•	24	•	•	•	•	•	•	•	•
B8-3'	5/28/2013	•	•	•	•	•	•	•	•	72	•	•	•	•	•	•	•	•
B9-1'	5/28/2013	•	•	•	•	•	•	•	•	22	•	•	•	•	•	•	•	•
B9-3'	5/28/2013	•	•	•	•	•	•	•	•	14	•	•	•	•	•	•	•	•
B10-1'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B10-3'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B11-1'	5/28/2013	•	•	•	•	•	•	•	•	13	•	•	•	•	•	•	•	•
B11-3'	5/28/2013	•	•	•	•	•	•	•	•	17	•	•	•	•	•	•	•	•
B12-1'	5/28/2013	•	•	•	•	•	•	•	•	27	•	•	•	•	•	•	•	•
B12-3'	5/28/2013	•	•	•	•	•	•	•	•	15	•	•	•	•	•	•	•	•
B13-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B13-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B14-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B14-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B15-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B15-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B16-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B16-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B17-1'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B17-3'	5/29/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B18-1'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B18-3'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B19-1'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B19-3'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B20-1'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B20-3'	5/28/2013	•	ND	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
B21-1'	5/28/2013	**4.6J**	ND	**263**	ND	**3.4**	**22.5**	**17**	**22**	**18**	ND	**22**	ND	ND	ND	**42**	**77**	**0.024**
B21-3'	5/28/2013	**3.7J**	ND	**254**	ND	**3.0J**	**20**	**16**	**18**	**14**	ND	**24**	ND	ND	ND	**34**	**61**	**0.015**
B22-1'	5/28/2013	**2.9J**	ND	**170**	ND	**2.6J**	**18**	**10**	**15**	**48**	ND	**16**	ND	**7.4J**	ND	**26**	**191**	**0.042**
B22-3'	5/28/2013	**3.6J**	ND	**301**	ND	**2.4J**	**16.4**	**14**	**15**	**11**	ND	**18**	ND	ND	ND	**28**	**48**	**0.013**

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TABLE 3
Shallow Soil Sample Results - Title 22 Metals
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID		Title 22 Metals by EPA Method 6010B/7471A (mg/kg)																
	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc	Mercury
MDL (mg/kg):		5.0	5.0	5.0	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.00002
RL (mg/kg):		5.0	5.0	5.0	2.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0001
RSLs[1] (mg/kg):	Resident.	310	0.39	15,000	160	70	180,000*	23	3,100	400	390	1,500	390	390	1.6	390	23,000	10
	Comm./Indust.	4,100	1.60	190,000	2,000	800	180,000*	300	41,000	800	5,100	20,000	5,100	5,100	20	5,200	310,000	43
B23-1'	5/29/2013	3.3J	ND	218	ND	3.3	20	15	21	39	ND	20	ND	ND	ND	31	124	0.048
B23-3'	5/29/2013	4.0J	ND	300	ND	4	23	20	22	15	ND	24	ND	ND	ND	38	79	0.021
B24-1'	5/29/2013	3.3J	ND	205	ND	3.2	19	16	18	42	ND	20	ND	ND	ND	30	93	0.024
B24-3'	5/29/2013	4.2J	ND	296	ND	4.1	23	21	22	15	ND	24	ND	ND	ND	37	78	0.023
B25-1'	5/28/2013	3.3J	ND	194	ND	2.42J	16.4	13.5	13.5	10.5	ND	16.6	ND	ND	ND	28	48	0.009
B25-3'	5/28/2013	4.2J	ND	281	ND	3.0J	23	16	19	13	ND	24	ND	ND	ND	37	60	0.013
B26-1'	5/28/2013	1.3J	ND	61	ND	1.1J	7.8	5.5	11.6	6	ND	9.3	ND	ND	ND	18	26	0.021
B26-3'	5/28/2013	3.1J	ND	195	ND	2.9J	18	15	13	11	ND	20	ND	ND	ND	31	56	0.0.12
B27-1'	5/29/2013	2.7J	ND	190	ND	3.1	18	14	14	12	0.50J	20	ND	ND	ND	30	59	0.020
B27-3'	5/29/2013	3.8J	ND	256	ND	3.6	23	18	20	14	ND	23	ND	ND	ND	35	74	0.020
B28-1'	5/29/2013	2.0J	ND	99	ND	1.8J	10	7.8	7.7J	6.7	0.44J	12.3	ND	ND	ND	19	36	0.0093
B28-3'	5/29/2013	4.0J	ND	263	ND	3.7	22	19	21	18	ND	22	ND	ND	ND	35	78	0.019

NOTES:
mg/kg = milligrams per kilogram
ND = Not Detected; below MDL
MDL = Method Detection Limit
RL = Reporting Limit
J = Concentration above the MDL and below the RL
• = Not Analyzed
[1] EPA Region 9 Regioanl Screenig Levels (RSLs) for residential and commercial settings
* No RSL information available; Protection of groundwater Soil Screening Level (SSL) based on maxiumum contaminant level (MCL) provided for reference

ALTA ENVIRONMENTAL

TABLE 4
Shallow Soil Sample Results - OCPs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

OCPs by EPA Method 8081A	CHHSLs* (µg/kg)		Sample ID:		B13-1'	B13-3'	B14-1'	B14-3'	B15-1'	B15-3'	B16-1'	B16-3'
			Date:		5/29/2013	5/29/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013
	Resident.	Comm./ Indust.	MDL:	MRL:	OCP Concentraiton (µg/kg)							
2,4'-DDD	2,300	9,000	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDE	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	1,600	6,300	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	**190**
4,4´-DDD	—	—	4.0 - 4.8	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
4,4´-DDE	1,600	6,300	6.3 - 7.7	21 - 25	**40**	ND	ND	ND	ND	**15**	ND	**740**
4,4´-DDT	1,600	6,300	4.5 - 5.5	21 - 25	**10**	ND	ND	ND	ND	**7.8**	ND	**270**
Aldrin	—	—	9.5 - 12	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
alpha-BHC	—	—	11 - 15	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	—	—	11 - 13	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
beta-BHC	NA	NA	6.5 - 7.9	21 - 25	ND	ND	ND	ND	ND	ND	ND	**37**
Chlordane (tech)	—	—	84 - 100	410 - 500	ND	ND	ND	ND	ND	ND	ND	ND
cis-Nonachlor	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
DCPA	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC	—	—	4.7 - 5.7	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	—	—	6.2 - 7.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	—	—	4.7 - 5.7	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	—	—	2.6 - 3.2	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	—	—	4.4 - 5.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	—	—	11 - 13	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	—	—	5.8 - 7.0	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endrin ketone	—	—	3.8 - 4.6	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane)	—	—	11 - 13	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane	—	—	8.2 - 10	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	—	—	11 - 14	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	—	—	7.5 - 9.1	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Kepone	—	—	180 - 220	410 - 500	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	—	—	4.5 - 5.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	—	—	6.4 - 7.8	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Oxychlordane	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	460	1,800	71 - 85	620 - 750	ND	ND	ND	ND	ND	ND	ND	**2,400**
trans-Nonachlor	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
OCPs = Organochlorine Pesticides
MDL = Method Detection Limit
MRL = Method Reporting Limit
µg/kg = micrograms per kilogram
ND = Not detected at or above the MDL
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of OCPs

Indicates concentration exeeds the commercial/industrial CHHSL

ALTA ENVIRONMENTAL

TABLE 4
Shallow Soil Sample Results - OCPs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

OCPs by EPA Method 8081A	CHHSLs* (µg/kg)		Sample ID:		B18-1'	B18-3'	B19-1'	B19-3'	B20-1'	B20-3'	B28-1'	B28-3'
			Date:		5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013
	Resident.	Comm./ Indust.	MDL:	MRL:	OCP Concentraiton (µg/kg)							
2,4'-DDD	**2,300**	**9,000**	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	**36**
2,4'-DDE	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	**1,600**	**6,300**	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	**94**
4,4´-DDD	—	—	4.0 - 4.8	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
4,4´-DDE	**1,600**	**6,300**	6.3 - 7.7	21 - 25	ND	ND	ND	ND	ND	ND	ND	**440**
4,4´-DDT	**1,600**	**6,300**	4.5 - 5.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	**260**
Aldrin	—	—	9.5 - 12	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
alpha-BHC	—	—	11 - 15	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
alpha-Chlordane	—	—	11 - 13	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
beta-BHC	**NA**	**NA**	6.5 - 7.9	21 - 25	ND	ND	ND	ND	ND	ND	ND	**42**
Chlordane (tech)	—	—	84 - 100	410 - 500	ND	ND	ND	ND	ND	ND	ND	ND
cis-Nonachlor	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
DCPA	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC	—	—	4.7 - 5.7	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	—	—	6.2 - 7.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan I	—	—	4.7 - 5.7	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	—	—	2.6 - 3.2	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	—	—	4.4 - 5.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	—	—	11 - 13	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	—	—	5.8 - 7.0	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Endrin ketone	—	—	3.8 - 4.6	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane)	—	—	11 - 13	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
gamma-Chlordane	—	—	8.2 - 10	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	—	—	11 - 14	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	—	—	7.5 - 9.1	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Kepone	—	—	180 - 220	410 - 500	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	—	—	4.5 - 5.5	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	—	—	6.4 - 7.8	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Oxychlordane	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	**460**	**1,800**	71 - 85	620 - 750	ND	ND	ND	ND	ND	ND	ND	**1,500**
trans-Nonachlor	—	—	21 - 25	21 - 25	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:
OCPs = Organochlorine Pesticides
MDL = Method Detection Limit
MRL = Method Reporting Limit
µg/kg = micrograms per kilogram
ND = Not detected at or above the MDL
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of OCPs

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TABLE 5
Shallow Soil Sample Results - PCBs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID	Sample Date	PCBs by EPA Method 8082 (mg/kg)					
		PCB 1221	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260
	MDL (mg/kg):	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**
	PQL (mg/kg):	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
B23-1'	5/29/2013	ND	ND	ND	ND	ND	ND
B23-3'	5/29/2013	ND	ND	ND	ND	ND	ND
B24-1'	5/28/2013	ND	ND	ND	ND	ND	ND
B24-3'	5/28/2013	ND	ND	ND	ND	ND	ND
B25-1'	5/28/2013	ND	ND	ND	ND	ND	ND
B25-3'	5/28/2013	ND	ND	ND	ND	ND	ND
B26-1'	5/28/2013	ND	ND	ND	ND	ND	ND
B26-3'	5/28/2013	ND	ND	ND	ND	ND	ND
B27-1'	5/29/2013	ND	ND	ND	ND	ND	ND
B27-3'	5/29/2013	ND	ND	ND	ND	ND	ND
B28-1'	5/29/2013	ND	ND	ND	ND	ND	ND
B28-3'	5/29/2013	ND	ND	ND	ND	ND	ND

NOTES:
PCB = Polychlorinated Biphenyls
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
mg/kg = milligrams per kilogram
ND = Indicates constituents not detected; below MDL

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TABLE 6
Shallow Soil Sample Results - TPH
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

Sample ID	Sample Date	TPH by EPA Method 8015M (mg/kg)			
		TEPH (C9-C36)	GRO (C4-C12)	DRO (C10-28)	Motor Oil (C29-C36)
	MDL (mg/kg):	**4**	**1.1**	**29**	**35**
	PQL (mg/kg):	**20**	**5.5**	**145**	**175**
B21-1'	05/28/13	**12.6J**	ND	ND	ND
B21-3'	05/28/13	ND	ND	ND	ND
B22-1'	05/28/13	**12.6J**	ND	ND	ND
B22-3'	05/28/13	ND	ND	ND	ND
B23-1'	05/29/13	ND	ND	ND	ND
B23-3'	05/29/13	**4.2J**	ND	ND	ND
B24-1'	05/29/13	**60.6**	ND	ND	**60.6J**
B24-3'	05/29/13	**4.4J**	ND	ND	ND
B25-1'	05/28/13	**12.5J**	ND	ND	ND
B25-3'	05/28/13	ND	ND	ND	ND
B26-1'	05/28/13	**4.4J**	ND	ND	ND
B26-3'	05/28/13	ND	ND	ND	ND
B27-1'	05/29/13	**4.0J**	ND	ND	ND
B27-3'	05/29/13	**13.1J**	ND	ND	ND
B28-1'	05/29/13	ND	ND	ND	ND
B28-3'	05/29/13	ND	ND	ND	ND
B29-1'	05/28/13	**12.6J**	ND	ND	ND
B29-3'	05/28/13	**4.1J**	ND	ND	ND
B30-1'	05/28/13	**12.7J**	ND	ND	ND
B30-3'	05/28/13	**12.4J**	ND	ND	ND
Maximum Soil Screening Levels* (mg/kg):		**—**	**1,000**	**10,000**	**50,000**

NOTES:
ND = Indicates constituents not detected; below MDL
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
J = Concentration above the MDL but below the PQL
TEPH = total extractable petroleum hydrocarbons
TPH = total petroleum hydrocarbons
GRO = gasoline range organics
DRO = diesel range organics
mg/kg = milligrams per kilogram
— = information not available
* The LARWQCB Maximum Soil Screening Levels are are provided for TPH in soil above drinking water aquifers greater than 150 bgs (LARWQCB Table 4-1, May 1996)

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TABLE 7
Shallow Soil Sample Results - SVOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

SVOCs by EPA Method 8270C	RSLs Soil* (mg/kg)		Sample ID:		B21-1'	B21-3'	B22-1'	B22-3'	B23-1'
		Comm./	Date:		5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/29/2013
	Resident.	Indust.	MDL:	MRL:	SVOC Concentration (mg/kg)				
1,2,4-Trichlorobenzene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
1,3-Dichforobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dichloropheno	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dimethylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dinitropheno	—	—	3.4 - 3.8	22 - 25	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloronaphthalene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloropheno	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylnaphthalene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitrophenol	—	—	0.19 - 0.22	0.44 - 0.50	ND	ND	ND	ND	ND
3 & 4-Methylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	—	—	1.3 - 1.5	2.2 - 2.5	ND	ND	ND	ND	ND
3-Nitroaniline	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylpheno	—	—	1.4 - 1.5	4.4 - 5.0	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloro-3-methylpheno	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ethe	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitrophenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthylene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Aniline	—	—	0.2 - 0.23	0.44 - 0.50	ND	ND	ND	ND	ND
Anthracene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Azobenzene/1,2-Diphenylhydrazine	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Benzidine	—	—	1.1 - 1.3	4.4 - 5.0	ND	ND	ND	ND	ND
Benzo(a)anthracene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(a)pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NA	NA	0.053 - 0.060	0.88 - 1.0	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Benzoic acid	—	—	1.7 - 1.9	22 - 25	ND	ND	ND	ND	ND
Benzyl alcoho	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Butyl benzyl phthalate	260	910	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Carbazole	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Chrysene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.015	0.21	0.044 - 0.050	0.88 - 1.0	0.099J	ND	ND	ND	ND
Dibenzofuran	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Diethyl phthalate	—	—	0.053 - 0.060	0.44 - 0.50	ND	ND	ND	ND	ND
Dimethyl phthalate	—	—	0.78 - 0.88	2.2 - 2.5	ND	ND	ND	ND	ND
Di-n-butyl phthalate	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Di-n-octyl phthalate	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Fluoranthene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Fluorene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorocydopentadiene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachloroethane	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.15	2.1	0.080 - 0.090	0.88 - 1.0	0.15J	ND	ND	ND	ND
Isophorone	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Naphthalene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Nitrobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Pentachloropheno	0.89	2.7	0.14 - 0.16	0.44 - 0.50	0.39J	ND	ND	ND	ND
Phenanthrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Phenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Pyridine	—	—	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND

NOTES:
SVOC = Semivolatile Organic Compound
MDL = Method Detection Limit
MRL = Method Reporting Limit
ND = Indicated constituents not detected; below method detection limit
mg/kg = milligrams per kilogram
J = Analyte detected. However, concentration is an estimated value, between the MDL and the MRL
RSLs = Regional Screeening Levels
NA = Information not available
— = Not applicable
*EPA Region 9 Regioanl Screenig Levels (RSLs) for residential and commercial settings, information provided for detected concentrations of SVOCs

ALTA ENVIRONMENTAL

TABLE 7
Shallow Soil Sample Results - SVOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

SVOCs by EPA Method 8270C	RSLs Soil* (mg/kg)		Sample ID:		B23-3'	B24-1'	B24-3'	B25-1'	B25-3'
		Comm./	Date:		5/29/2013	5/29/2013	5/29/2013	5/28/2013	5/28/2013
	Resident.	Indust.	MDL:	MRL:	SVOC Concentration (mg/kg)				
1,2,4-Trichlorobenzene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
1,3-Dichforobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dichloropheno	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dimethylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dinitropheno	—	—	3.4 - 3.8	22 - 25	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloronaphthalene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloropheno	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylnaphthalene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitrophenol	—	—	0.19 - 0.22	0.44 - 0.50	ND	ND	ND	ND	ND
3 & 4-Methylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	—	—	1.3 - 1.5	2.2 - 2.5	ND	ND	ND	ND	ND
3-Nitroaniline	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylpheno	—	—	1.4 - 1.5	4.4 - 5.0	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloro-3-methylpheno	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ethe	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitrophenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthylene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Aniline	—	—	0.2 - 0.23	0.44 - 0.50	ND	ND	ND	ND	ND
Anthracene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Azobenzene/1,2-Diphenylhydrazine	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Benzidine	—	—	1.1 - 1.3	4.4 - 5.0	ND	ND	ND	ND	ND
Benzo(a)anthracene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(a)pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	**NA**	**NA**	0.053 - 0.060	0.88 - 1.0	ND	ND	ND	**0.11J**	ND
Benzo(k)fluoranthene	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Benzoic acid	—	—	1.7 - 1.9	22 - 25	ND	ND	ND	ND	ND
Benzyl alcoho	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Butyl benzyl phthalate	**260**	**910**	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	**0.28J**	ND
Carbazole	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Chrysene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	**0.015**	**0.21**	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND
Dibenzofuran	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Diethyl phthalate	—	—	0.053 - 0.060	0.44 - 0.50	ND	ND	ND	ND	ND
Dimethyl phthalate	—	—	0.78 - 0.88	2.2 - 2.5	ND	ND	ND	ND	ND
Di-n-butyl phthalate	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Di-n-octyl phthalate	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Fluoranthene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Fluorene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorocydopentadiene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachloroethane	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	**0.15**	**2.1**	0.080 - 0.090	0.88 - 1.0	ND	ND	ND	**0.15J**	ND
Isophorone	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Naphthalene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Nitrobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Pentachloropheno	**0.89**	**2.7**	0.14 - 0.16	0.44 - 0.50	ND	ND	ND	ND	ND
Phenanthrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Phenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Pyridine	—	—	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND

NOTES:
SVOC = Semivolatile Organic Compound
MDL = Method Detection Limit
MRL = Method Reporting Limit
ND = Indicated constituents not detected; below method detection limit
mg/kg = milligrams per kilogram
J = Analyte detected. However, concentration is an estimated value, between the MDL and the MRL
RSLs = Regional Screeening Levels
NA = Information not available
— = Not applicable
*EPA Region 9 Regioanl Screenig Levels (RSLs) for residential and commercial settings, information provided for detected concentrations of SVOCs

ALTA ENVIRONMENTAL

TABLE 7
Shallow Soil Sample Results - SVOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

SVOCs by EPA Method 8270C	RSLs Soil* (mg/kg)		Sample ID:		B26-1'	B26-3'	B27-1'	B27-3'	B28-1'
		Comm./	Date:		5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013
	Resident.	Indust.	MDL:	MRL:	SVOC Concentration (mg/kg)				
1,2,4-Trichlorobenzene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
1,3-Dichforobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dichloropheno	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dimethylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dinitropheno	—	—	3.4 - 3.8	22 - 25	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloronaphthalene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloropheno	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylnaphthalene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitrophenol	—	—	0.19 - 0.22	0.44 - 0.50	ND	ND	ND	ND	ND
3 & 4-Methylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	—	—	1.3 - 1.5	2.2 - 2.5	ND	ND	ND	ND	ND
3-Nitroaniline	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylpheno	—	—	1.4 - 1.5	4.4 - 5.0	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloro-3-methylpheno	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ethe	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitrophenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthylene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Aniline	—	—	0.2 - 0.23	0.44 - 0.50	ND	ND	ND	ND	ND
Anthracene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Azobenzene/1,2-Diphenylhydrazine	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Benzidine	—	—	1.1 - 1.3	4.4 - 5.0	ND	ND	ND	ND	ND
Benzo(a)anthracene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(a)pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NA	NA	0.053 - 0.060	0.88 - 1.0	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Benzoic acid	—	—	1.7 - 1.9	22 - 25	ND	ND	ND	ND	ND
Benzyl alcoho	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Butyl benzyl phthalate	260	910	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Carbazole	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Chrysene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.015	0.21	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND
Dibenzofuran	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Diethyl phthalate	—	—	0.053 - 0.060	0.44 - 0.50	ND	ND	ND	ND	ND
Dimethyl phthalate	—	—	0.78 - 0.88	2.2 - 2.5	ND	ND	ND	ND	ND
Di-n-butyl phthalate	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Di-n-octyl phthalate	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Fluoranthene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Fluorene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorocydopentadiene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachloroethane	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.15	2.1	0.080 - 0.090	0.88 - 1.0	ND	ND	ND	ND	ND
Isophorone	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Naphthalene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Nitrobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Pentachloropheno	0.89	2.7	0.14 - 0.16	0.44 - 0.50	ND	ND	ND	ND	ND
Phenanthrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Phenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Pyridine	—	—	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND

NOTES:
SVOC = Semivolatile Organic Compound
MDL = Method Detection Limit
MRL = Method Reporting Limit
ND = Indicated constituents not detected; below method detection limit
mg/kg = milligrams per kilogram
J = Analyte detected. However, concentration is an estimated value, between the MDL and the MRL
RSLs = Regional Screeening Levels
NA = Information not available
— = Not applicable
*EPA Region 9 Regioanl Screenig Levels (RSLs) for residential and commercial settings, information provided for detected concentrations of SVOCs

ALTA ENVIRONMENTAL

TABLE 7
Shallow Soil Sample Results - SVOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

SVOCs by EPA Method 8270C	RSLs Soil* (mg/kg)		Sample ID:		B28-3'	B29-1'	B29-3'	B30-1'	B30-3'
		Comm./	Date:		5/28/2013	5/28/2013	5/28/2013	5/28/2013	5/28/2013
	Resident.	Indust.	MDL:	MRL:	SVOC Concentration (mg/kg)				
1,2,4-Trichlorobenzene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
1,3-Dichforobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dichloropheno	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dimethylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2,4-Dinitropheno	—	—	3.4 - 3.8	22 - 25	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloronaphthalene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
2-Chloropheno	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylnaphthalene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
2-Methylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
2-Nitrophenol	—	—	0.19 - 0.22	0.44 - 0.50	ND	ND	ND	ND	ND
3 & 4-Methylpheno	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	—	—	1.3 - 1.5	2.2 - 2.5	ND	ND	ND	ND	ND
3-Nitroaniline	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylpheno	—	—	1.4 - 1.5	4.4 - 5.0	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloro-3-methylpheno	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chloroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ethe	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitroaniline	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
4-Nitrophenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Acenaphthylene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Aniline	—	—	0.2 - 0.23	0.44 - 0.50	ND	ND	ND	ND	ND
Anthracene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Azobenzene/1,2-Diphenylhydrazine	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Benzidine	—	—	1.1 - 1.3	4.4 - 5.0	ND	ND	ND	ND	ND
Benzo(a)anthracene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(a)pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NA	NA	0.053 - 0.060	0.88 - 1.0	ND	**0.12J**	ND	ND	ND
Benzo(k)fluoranthene	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Benzoic acid	—	—	1.7 - 1.9	22 - 25	ND	ND	ND	ND	ND
Benzyl alcoho	—	—	0.12 - 0.13	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Butyl benzyl phthalate	260	910	0.13 - 0.15	0.44 - 0.50	**0.29J**	ND	ND	ND	ND
Carbazole	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Chrysene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.015	0.21	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND
Dibenzofuran	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Diethyl phthalate	—	—	0.053 - 0.060	0.44 - 0.50	ND	ND	ND	ND	ND
Dimethyl phthalate	—	—	0.78 - 0.88	2.2 - 2.5	ND	ND	ND	ND	ND
Di-n-butyl phthalate	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Di-n-octyl phthalate	—	—	0.12 - 0.14	0.44 - 0.50	ND	ND	ND	ND	ND
Fluoranthene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Fluorene	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobenzene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachlorocydopentadiene	—	—	0.11 - 0.12	0.44 - 0.50	ND	ND	ND	ND	ND
Hexachloroethane	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.15	2.1	0.080 - 0.090	0.88 - 1.0	ND	**0.17J**	ND	ND	ND
Isophorone	—	—	0.088 - 0.10	0.44 - 0.50	ND	ND	ND	ND	ND
Naphthalene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
Nitrobenzene	—	—	0.097 - 0.11	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodimethylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	—	—	0.080 - 0.090	0.44 - 0.50	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	—	—	0.062 - 0.070	0.44 - 0.50	ND	ND	ND	ND	ND
Pentachloropheno	0.89	2.7	0.14 - 0.16	0.44 - 0.50	ND	ND	ND	ND	ND
Phenanthrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Phenol	—	—	0.13 - 0.15	0.44 - 0.50	ND	ND	ND	ND	ND
Pyrene	—	—	0.071 - 0.080	0.44 - 0.50	ND	ND	ND	ND	ND
Pyridine	—	—	0.044 - 0.050	0.88 - 1.0	ND	ND	ND	ND	ND

NOTES:
SVOC = Semivolatile Organic Compound
MDL = Method Detection Limit
MRL = Method Reporting Limit
ND = Indicated constituents not detected; below method detection limit
mg/kg = milligrams per kilogram
J = Analyte detected. However, concentration is an estimated value, between the MDL and the MRL
RSLs = Regional Screeening Levels
NA = Information not available
— = Not applicable
*EPA Region 9 Regioanl Screenig Levels (RSLs) for residential and commercial settings, information provided for detected concentrations of SVOCs

ALTA ENVIRONMENTAL

TABLE 8
Shallow Soil Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B		Sample ID:	B25-1'	B25-3'	B26-1'	B26-3'
		Date:	5/28/2013	5/28/2013	5/28/2013	5/28/2013
	MDL:	PQL:	VOC Concentration (µg/kg)			
Acetone	32	160	ND	ND	ND	ND
tert-Amyl methyl ether (TAME)	23	115	ND	ND	ND	ND
Benzene	26	130	ND	ND	ND	ND
Bromobenzene	26	130	ND	ND	ND	ND
Bromochloromethane	24	120	ND	ND	ND	ND
Bromodichloramethane	22	110	ND	ND	ND	ND
Bromoform	23	115	ND	ND	ND	ND
Bromomethane	20	100	ND	ND	ND	ND
Methyl ethyl ketone (MEK)	26	130	ND	ND	ND	ND
tert-Butyl alcohol (TBA)	373	1865	ND	ND	ND	ND
Butylbenzene	29	145	ND	ND	ND	ND
sec-Butylbenzene	27	135	ND	ND	ND	ND
tert-Butylbenzene	29	145	ND	ND	ND	ND
tert-Butyl ethyl ether (ETBE)	20	100	ND	ND	ND	ND
Carbon disulfide	116	580	ND	ND	ND	ND
Carbon Tetrachloride	32	160	ND	ND	ND	ND
Chlorobenzene	28	140	ND	ND	ND	ND
Chloroethane	42	210	ND	ND	ND	ND
2-Chloroethyl vinyl ether	23	115	ND	ND	ND	ND
Chloroform	30	150	ND	ND	ND	ND
Chloromethane	70	350	ND	ND	ND	ND
2-Chlorotoluene	27	135	ND	ND	ND	ND
4-ChlorotoJuene	28	140	ND	ND	ND	ND
Dibromochloromethane	25	125	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	31	155	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	23	115	ND	ND	ND	ND
Dibromomethane	33	165	ND	ND	ND	ND
1,2-Dichlorobenzene	27	135	ND	ND	ND	ND
1,3-Dichlorobenzene	27	135	ND	ND	ND	ND
1,4-Dichlorobenzene	33	165	ND	ND	ND	ND
Dichlorodifluoromethane	37	185	ND	ND	ND	ND
1,1-Dichloroethane	29	145	ND	ND	ND	ND
1,2-Dichloroethane	22	110	ND	ND	ND	ND
1,1-Dichloroethene	28	140	ND	ND	ND	ND
cis-1,2-Dichloroethene	26	130	ND	ND	ND	ND
trans-1,2-Dichloroethene	32	160	ND	ND	ND	ND
1,2-Dichloropropane	22	110	ND	ND	ND	ND
1,3-Dichloropropane	21	105	ND	ND	ND	ND
2,2-Dichloropropane	38	190	ND	ND	ND	ND
1,1-Dichloropropene	27	135	ND	ND	ND	ND
cis-1,3-Dichloropropene	26	130	ND	ND	ND	ND
trans-1,3-Dichloropropene	29	145	ND	ND	ND	ND
Diisopropyl ether (DIPE)	26	130	ND	ND	ND	ND
Ethylbenzene	30	150	ND	ND	ND	ND
Hexachlorobutadiene	44	220	ND	ND	ND	ND
2-Hexanone	21	105	ND	ND	ND	ND
Isopropylbenzene	33	165	ND	ND	ND	ND
p-Isopropyltoluene	28	140	ND	ND	ND	ND
Methyl-t-butyl ether (MTBE)	23	115	ND	ND	ND	ND
Methylene chloride	31	155	ND	ND	ND	ND
Methyl iodine (Iodomethane)	20	100	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	19	95	ND	ND	ND	ND
Naphthalene	30	150	ND	ND	ND	ND
Propylbenzene	30	150	ND	ND	ND	ND
Styrene (Phenylethylene)	33	165	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	23	115	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	40	200	ND	ND	ND	ND
Tetrachloroethylene (PCE)	27	135	ND	ND	ND	ND
Toluene	25	125	ND	ND	ND	ND
1,2,3-Trichlorobenzene	29	145	ND	ND	ND	ND
1,2,4-Trichlorobenzene	31	155	ND	ND	ND	ND
1,1,1-Trichloroethane	26	130	ND	ND	ND	ND
1,1,2-Trichloroethane	23	115	ND	ND	ND	ND
Trichloroethylene (TCE)	24	120	ND	ND	ND	ND
Trichlorofiuoromethane	35	175	ND	ND	ND	ND
1,2,3-Trichloropropane	22	110	ND	ND	ND	ND
1,2,4-Trimethylbenzene	25	125	ND	ND	ND	ND
1,3,5-Trimethylbenzene	28	140	ND	ND	ND	ND
Vinyl acetate	52	260	ND	ND	ND	ND
Vinyl Chloride	36	180	ND	ND	ND	ND
m & p-Xylene	75	375	ND	ND	ND	ND
o-Xylene	28	140	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
ND = Indicated constituents not detected; below method detection limit
µg/kg = micrograms per kilogram

ALTA ENVIRONMENTAL

TABLE 8
Shallow Soil Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B		Sample ID:	B27-1'	B27-3'	B28-1'	B28-3'
		Date:	5/29/2013	5/29/2013	5/29/2013	5/29/2013
	MDL:	PQL:	VOC Concentration (µg/kg)			
Acetone	32	160	ND	ND	ND	ND
tert-Amyl methyl ether (TAME)	23	115	ND	ND	ND	ND
Benzene	26	130	ND	ND	ND	ND
Bromobenzene	26	130	ND	ND	ND	ND
Bromochloromethane	24	120	ND	ND	ND	ND
Bromodichloramethane	22	110	ND	ND	ND	ND
Bromoform	23	115	ND	ND	ND	ND
Bromomethane	20	100	ND	ND	ND	ND
Methyl ethyl ketone (MEK)	26	130	ND	ND	ND	ND
tert-Butyl alcohol (TBA)	373	1865	ND	ND	ND	ND
Butylbenzene	29	145	ND	ND	ND	ND
sec-Butylbenzene	27	135	ND	ND	ND	ND
tert-Butylbenzene	29	145	ND	ND	ND	ND
tert-Butyl ethyl ether (ETBE)	20	100	ND	ND	ND	ND
Carbon disulfide	116	580	ND	ND	ND	ND
Carbon Tetrachloride	32	160	ND	ND	ND	ND
Chlorobenzene	28	140	ND	ND	ND	ND
Chloroethane	42	210	ND	ND	ND	ND
2-Chloroethyl vinyl ether	23	115	ND	ND	ND	ND
Chloroform	30	150	ND	ND	ND	ND
Chloromethane	70	350	ND	ND	ND	ND
2-Chlorotoluene	27	135	ND	ND	ND	ND
4-ChlorotoJuene	28	140	ND	ND	ND	ND
Dibromochloromethane	25	125	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	31	155	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	23	115	ND	ND	ND	ND
Dibromomethane	33	165	ND	ND	ND	ND
1,2-Dichlorobenzene	27	135	ND	ND	ND	ND
1,3-Dichlorobenzene	27	135	ND	ND	ND	ND
1,4-Dichlorobenzene	33	165	ND	ND	ND	ND
Dichlorodifluoromethane	37	185	ND	ND	ND	ND
1,1-Dichloroethane	29	145	ND	ND	ND	ND
1,2-Dichloroethane	22	110	ND	ND	ND	ND
1,1-Dichloroethene	28	140	ND	ND	ND	ND
cis-1,2-Dichloroethene	26	130	ND	ND	ND	ND
trans-1,2-Dichloroethene	32	160	ND	ND	ND	ND
1,2-Dichloropropane	22	110	ND	ND	ND	ND
1,3-Dichloropropane	21	105	ND	ND	ND	ND
2,2-Dichloropropane	38	190	ND	ND	ND	ND
1,1-Dichloropropene	27	135	ND	ND	ND	ND
cis-1,3-Dichloropropene	26	130	ND	ND	ND	ND
trans-1,3-Dichloropropene	29	145	ND	ND	ND	ND
Diisopropyl ether (DIPE)	26	130	ND	ND	ND	ND
Ethylbenzene	30	150	ND	ND	ND	ND
Hexachlorobutadiene	44	220	ND	ND	ND	ND
2-Hexanone	21	105	ND	ND	ND	ND
Isopropylbenzene	33	165	ND	ND	ND	ND
p-Isopropyltoluene	28	140	ND	ND	ND	ND
Methyl-t-butyl ether (MTBE)	23	115	ND	ND	ND	ND
Methylene chloride	31	155	ND	ND	ND	ND
Methyl iodine (Iodomethane)	20	100	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	19	95	ND	ND	ND	ND
Naphthalene	30	150	ND	ND	ND	ND
Propylbenzene	30	150	ND	ND	ND	ND
Styrene (Phenylethylene)	33	165	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	23	115	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	40	200	ND	ND	ND	ND
Tetrachloroethylene (PCE)	27	135	ND	ND	ND	ND
Toluene	25	125	ND	ND	ND	ND
1,2,3-Trichlorobenzene	29	145	ND	ND	ND	ND
1,2,4-Trichlorobenzene	31	155	ND	ND	ND	ND
1,1,1-Trichloroethane	26	130	ND	ND	ND	ND
1,1,2-Trichloroethane	23	115	ND	ND	ND	ND
Trichloroethylene (TCE)	24	120	ND	ND	ND	ND
Trichlorofiuoromethane	35	175	ND	ND	ND	ND
1,2,3-Trichloropropane	22	110	ND	ND	ND	ND
1,2,4-Trimethylbenzene	25	125	ND	ND	ND	ND
1,3,5-Trimethylbenzene	28	140	ND	ND	ND	ND
Vinyl acetate	52	260	ND	ND	ND	ND
Vinyl Chloride	36	180	ND	ND	ND	ND
m & p-Xylene	75	375	ND	ND	ND	ND
o-Xylene	28	140	ND	ND	ND	ND

NOTES:
VOC = Volatile Organic Compound
MDL = Method Detection Limit
PQL = Practical Quantitation Limit
ND = Indicated constituents not detected; below method detection limit
µg/kg = micrograms per kilogram

ALTA ENVIRONMENTAL

TABLE 9
Soil Gas Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	CHHSLs* (µg/L)		Sample ID:	VP1-5	VP1-15	VP2-5	VP2-15	VP3-5	VP3-15 1P	VP3-15 3P	VP3-15 10P
			Date:	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013
	Resident.	Comm./ Indust.	PQL:	VOC Concentrations (µg/L)							
Benzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.063	0.21	0.008	ND	ND	ND	ND	ND	0.033	0.014	0.029
Chlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NA	NA	0.008	ND	ND	ND	ND	0.316	0.896	0.81	0.872
Chloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	NA	NA	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	NA	NA	0.008	2.82	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	0.47	1.6	0.008	ND	ND	ND	ND	0.059	0.057	0.048	0.054
Toluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	1.3	4.4	0.008	ND	ND	ND	ND	2.26	2.83	2.55	2.89
Trichlorofluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl-tert-butylether (ETBE)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropylether (DIPE)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-amylmethylether (TAME)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol (TBA)	—	—	0.040	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

ALTA ENVIRONMENTAL

TABLE 9
Soil Gas Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	CHHSLs* (µg/L)		Sample ID:	VP4-5	VP4-15	VP5-5	VP5-15	VP6-5	VP6-15	VP7-5	VP7-15
		Comm./	Date:	(NA)	(NA)	(NA)	(NA)	6/5/2013	6/5/2013	6/4/2013	6/4/2013
	Resident.	Indust.	PQL:	VOC Concentrations (µg/L)							
Benzene	—	—	0.008	NO SAMPLE COLLECTED - PROBE LOCATION INACCESSIBLE	NO SAMPLE COLLECTED - PROBE LOCATION INACCESSIBLE	NO SAMPLE COLLECTED - PROBE LOCATION INACCESSIBLE	NO SAMPLE COLLECTED - PROBE LOCATION INACCESSIBLE	ND	ND	ND	ND
Bromobenzene	—	—	0.008					ND	ND	ND	ND
Bromodichloromethane	—	—	0.008					ND	ND	ND	ND
Bromoform	—	—	0.008					ND	ND	ND	ND
n-Butylbenzene	—	—	0.008					ND	ND	ND	ND
sec-Butylbenzene	—	—	0.008					ND	ND	ND	ND
tert-Butylbenzene	—	—	0.008					ND	ND	ND	ND
Carbon tetrachloride	**0.063**	**0.21**	0.008					ND	ND	ND	**0.035**
Chlorobenzene	—	—	0.008					ND	ND	ND	ND
Chloroethane	—	—	0.008					ND	ND	ND	ND
Chloroform	**NA**	**NA**	0.008					ND	**0.046**	**0.022**	**0.363**
Chloromethane	—	—	0.008					ND	ND	ND	ND
2-Chlorotoluene	—	—	0.008					ND	ND	ND	ND
4-Chlorotoluene	—	—	0.008					ND	ND	ND	ND
Dibromochloromethane	—	—	0.008					ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	—	—	0.008					ND	ND	ND	ND
1,2-Dibromoethane (EDB)	—	—	0.008					ND	ND	ND	ND
Dibromomethane	—	—	0.008					ND	ND	ND	ND
1,2- Dichlorobenzene	—	—	0.008					ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.008					ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.008					ND	ND	ND	ND
Dichlorodifluoromethane	—	—	0.008					ND	ND	ND	ND
1,1-Dichloroethane	—	—	0.008					ND	ND	ND	ND
1,2-Dichloroethane	—	—	0.008					ND	ND	ND	ND
1,1-Dichloroethene	**NA**	**NA**	0.008					ND	ND	ND	ND
cis-1,2-Dichloroethene	—	—	0.008					ND	ND	ND	ND
trans-1,2-Dichloroethene	—	—	0.008					ND	ND	ND	ND
1,2-Dichloropropane	—	—	0.008					ND	ND	ND	ND
1,3-Dichloropropane	—	—	0.008					ND	ND	ND	ND
2,2-Dichloropropane	—	—	0.008					ND	ND	ND	ND
1,1-Dichloropropene	—	—	0.008					ND	ND	ND	ND
cis-1,3-Dichloropropene	—	—	0.008					ND	ND	ND	ND
trans-1,3-Dichloropropene	—	—	0.008					ND	ND	ND	ND
Ethylbenzene	—	—	0.008					ND	ND	ND	ND
Freon 113	**NA**	**NA**	0.008					**0.651**	**0.964**	ND	**0.057**
Hexachlorobutadiene	—	—	0.008					ND	ND	ND	ND
Isopropylbenzene	—	—	0.008					ND	ND	ND	ND
4-Isopropyltoluene	—	—	0.008					ND	ND	ND	ND
Methylene chloride	—	—	0.008					ND	ND	ND	ND
Naphthalene	—	—	0.008					ND	ND	ND	ND
n-Propylbenzene	—	—	0.008					ND	ND	ND	ND
Styrene	—	—	0.008					ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	—	—	0.008					ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	—	—	0.008					ND	ND	ND	ND
Tetrachloroethylene (PCE)	**0.47**	**1.6**	0.008					ND	ND	ND	ND
Toluene	—	—	0.008					ND	ND	ND	ND
1,2,3-Trichlorobenzene	—	—	0.008					ND	ND	ND	ND
1,2,4-Trichlorobenzene	—	—	0.008					ND	ND	ND	ND
1,1,1-Trichloroethane	—	—	0.008					ND	ND	ND	ND
1,1,2-Trichloroethane	—	—	0.008					ND	ND	ND	ND
Trichloroethylene (TCE)	**1.3**	**4.4**	0.008					ND	ND	ND	ND
Trichlorofluoromethane	—	—	0.008					ND	ND	ND	ND
1,2,3-Trichloropropane	—	—	0.008					ND	ND	ND	ND
1,2,4-Trimethylbenzene	—	—	0.008					ND	ND	ND	ND
1,3,5-Trimethylbenzene	—	—	0.008					ND	ND	ND	ND
Vinyl chloride	—	—	0.008					ND	ND	ND	ND
Xylenes	—	—	0.008					ND	ND	ND	ND
MTBE	—	—	0.008					ND	ND	ND	ND
Ethyl-tert-butylether (ETBE)	—	—	0.008					ND	ND	ND	ND
Di-isopropylether (DIPE)	—	—	0.008					ND	ND	ND	ND
tert-amylmethylether (TAME)	—	—	0.008					ND	ND	ND	ND
tert-Butylalcohol (TBA)	—	—	0.040					ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

ALTA ENVIRONMENTAL

TABLE 9
Soil Gas Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	CHHSLs* (µg/L)		Sample ID:	VP8-5	VP8-15	VP9-5	VP9-5 REP	VP9-15	VP10-5	VP10-15	VP11-5
			Date:	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/4/2013	6/5/2013	6/5/2013
	Resident.	Comm./ Indust.	PQL:	VOC Concentrations (µg/L)							
Benzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.063	0.21	0.008	ND	**0.017**	ND	ND	ND	ND	ND	ND
Chlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NA	NA	0.008	**0.153**	**0.454**	ND	ND	ND	ND	ND	ND
Chloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	NA	NA	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	NA	NA	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	0.47	1.6	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	1.3	4.4	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl-tert-butylether (ETBE)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropylether (DIPE)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-amylmethylether (TAME)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol (TBA)	—	—	0.040	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

TABLE 9
Soil Gas Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

VOCs by EPA Method 8260B	CHHSLs* (µg/L)		Sample ID:	VP11-15	VP11-5 REP	VP12-5	VP12-15	VP13-5	VP13-15	VP14-5	VP14-15
		Comm./	Date:	6/5/2013	6/5/2013	6/5/2013	6/5/2013	6/5/2013	6/5/2013	6/4/2013	6/4/2013
	Resident.	Indust.	PQL:	VOC Concentrations (µg/L)							
Benzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.063	0.21	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	NA	NA	0.008	ND	ND	0.039	ND	ND	ND	ND	ND
Chloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	NA	NA	0.008	ND	ND	ND	ND	ND	0.118	ND	ND
cis-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	NA	NA	0.008	0.068	ND	0.184	0.529	0.203	1.13	ND	ND
Hexachlorobutadiene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	0.47	1.6	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	1.3	4.4	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl-tert-butylether (ETBE)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropylether (DIPE)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-amylmethylether (TAME)	—	—	0.008	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol (TBA)	—	—	0.040	ND	ND	ND	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

ALTA ENVIRONMENTAL

TABLE 9
Soil Gas Sample Results - VOCs
Tyrone Property
7600 Tyrone Avenue, Van Nuys, CA

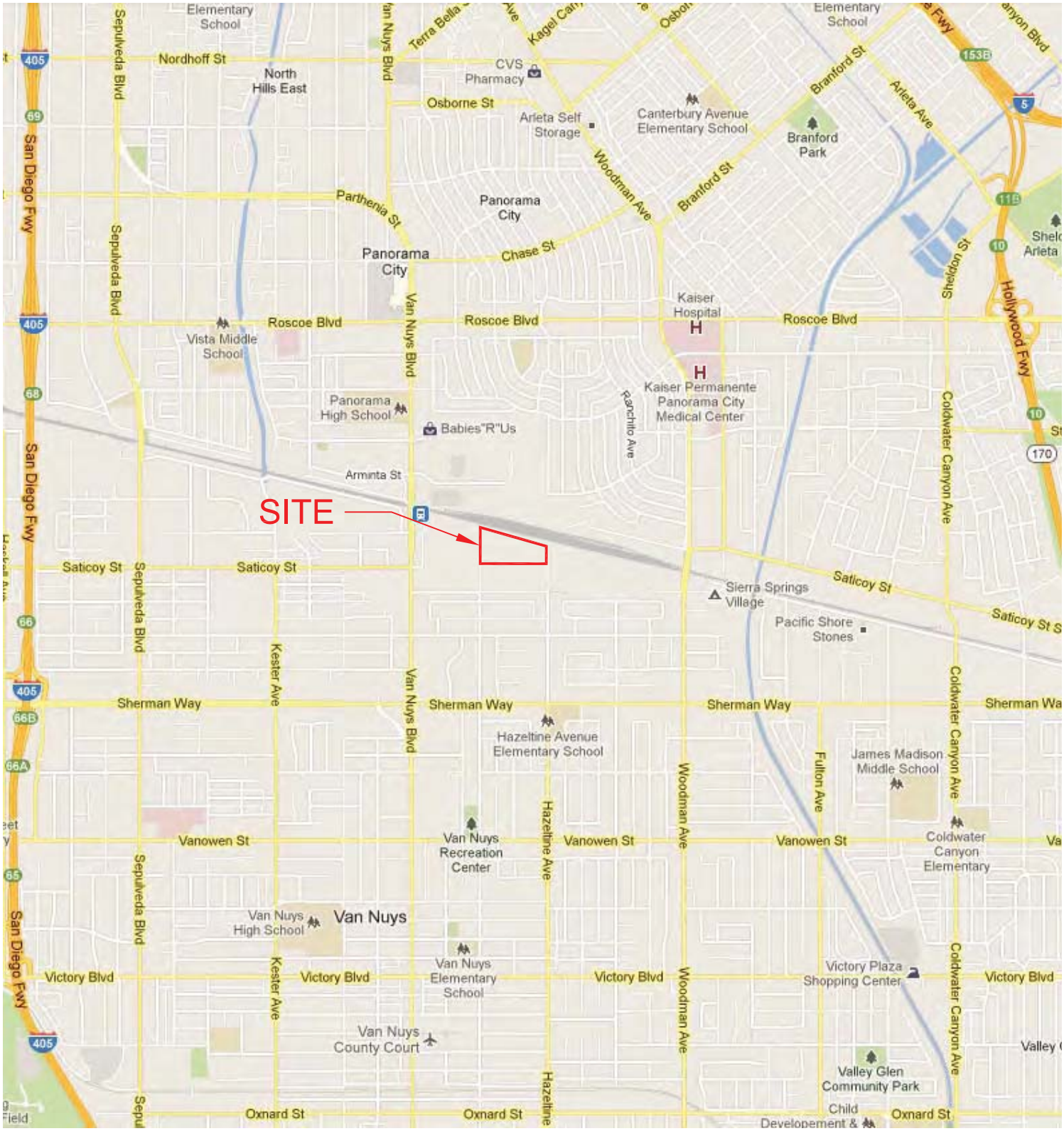
VOCs by EPA Method 8260B	CHHSLs* (µg/L)		Sample ID:	VP15-5	VP15-15	VP16-5	VP16-5 REP	VP16-15
			Date:	6/4/2013	6/4/2013	6/12/2013	6/12/2013	6/12/2013
	Resident.	Comm./ Indust.	PQL:	VOC Concentrations (µg/L)				
Benzene	—	—	0.008	ND	ND	ND	ND	ND
Bromobenzene	—	—	0.008	ND	ND	ND	ND	ND
Bromodichloromethane	—	—	0.008	ND	ND	ND	ND	ND
Bromoform	—	—	0.008	ND	ND	ND	ND	ND
n-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND
sec-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND
tert-Butylbenzene	—	—	0.008	ND	ND	ND	ND	ND
Carbon tetrachloride	**0.063**	**0.21**	0.008	ND	ND	ND	ND	ND
Chlorobenzene	—	—	0.008	ND	ND	ND	ND	ND
Chloroethane	—	—	0.008	ND	ND	ND	ND	ND
Chloroform	**NA**	**NA**	0.008	ND	ND	ND	ND	ND
Chloromethane	—	—	0.008	ND	ND	ND	ND	ND
2-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND
4-Chlorotoluene	—	—	0.008	ND	ND	ND	ND	ND
Dibromochloromethane	—	—	0.008	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	—	—	0.008	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	—	—	0.008	ND	ND	ND	ND	ND
Dibromomethane	—	—	0.008	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND
Dichlorodifluoromethane	—	—	0.008	ND	ND	ND	ND	ND
1,1-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND
1,2-Dichloroethane	—	—	0.008	ND	ND	ND	ND	ND
1,1-Dichloroethene	**NA**	**NA**	0.008	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	—	—	0.008	ND	ND	ND	ND	ND
1,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND
1,3-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND
2,2-Dichloropropane	—	—	0.008	ND	ND	ND	ND	ND
1,1-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	—	—	0.008	ND	ND	ND	ND	ND
Ethylbenzene	—	—	0.008	ND	ND	ND	ND	ND
Freon 113	**NA**	**NA**	0.008	ND	ND	ND	ND	ND
Hexachlorobutadiene	—	—	0.008	ND	ND	ND	ND	ND
Isopropylbenzene	—	—	0.008	ND	ND	ND	ND	ND
4-Isopropyltoluene	—	—	0.008	ND	ND	ND	ND	ND
Methylene chloride	—	—	0.008	ND	ND	ND	ND	ND
Naphthalene	—	—	0.008	ND	ND	ND	ND	ND
n-Propylbenzene	—	—	0.008	ND	ND	ND	ND	ND
Styrene	—	—	0.008	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	—	—	0.008	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	**0.47**	**1.6**	0.008	ND	ND	ND	ND	ND
Toluene	—	—	0.008	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	—	—	0.008	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	—	—	0.008	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	**1.3**	**4.4**	0.008	ND	ND	ND	ND	ND
Trichlorofluoromethane	—	—	0.008	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	—	—	0.008	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	—	—	0.008	ND	ND	ND	ND	ND
Vinyl chloride	—	—	0.008	ND	ND	ND	ND	ND
Xylenes	—	—	0.008	ND	ND	ND	ND	ND
MTBE	—	—	0.008	ND	ND	ND	ND	ND
Ethyl-tert-butylether (ETBE)	—	—	0.008	ND	ND	ND	ND	ND
Di-isopropylether (DIPE)	—	—	0.008	ND	ND	ND	ND	ND
tert-amylmethylether (TAME)	—	—	0.008	ND	ND	ND	ND	ND
tert-Butylalcohol (TBA)	—	—	0.040	ND	ND	ND	ND	ND

NOTES:

VOC = Volatile Organic Compound
PQLs = Practical Quantitation Limits
ND = Not Detected Above the PQL
P = Purge Volume
REP = replicate
µg/L = micrograms per liter
NA = Information not available
— = Not applicable
*California Human Health Screening Levels (CHHSLs) for residential and commercial settings are provided for detected concentrations of VOCs

Figures

Figures 1 through 3



Approximate Outline of Site

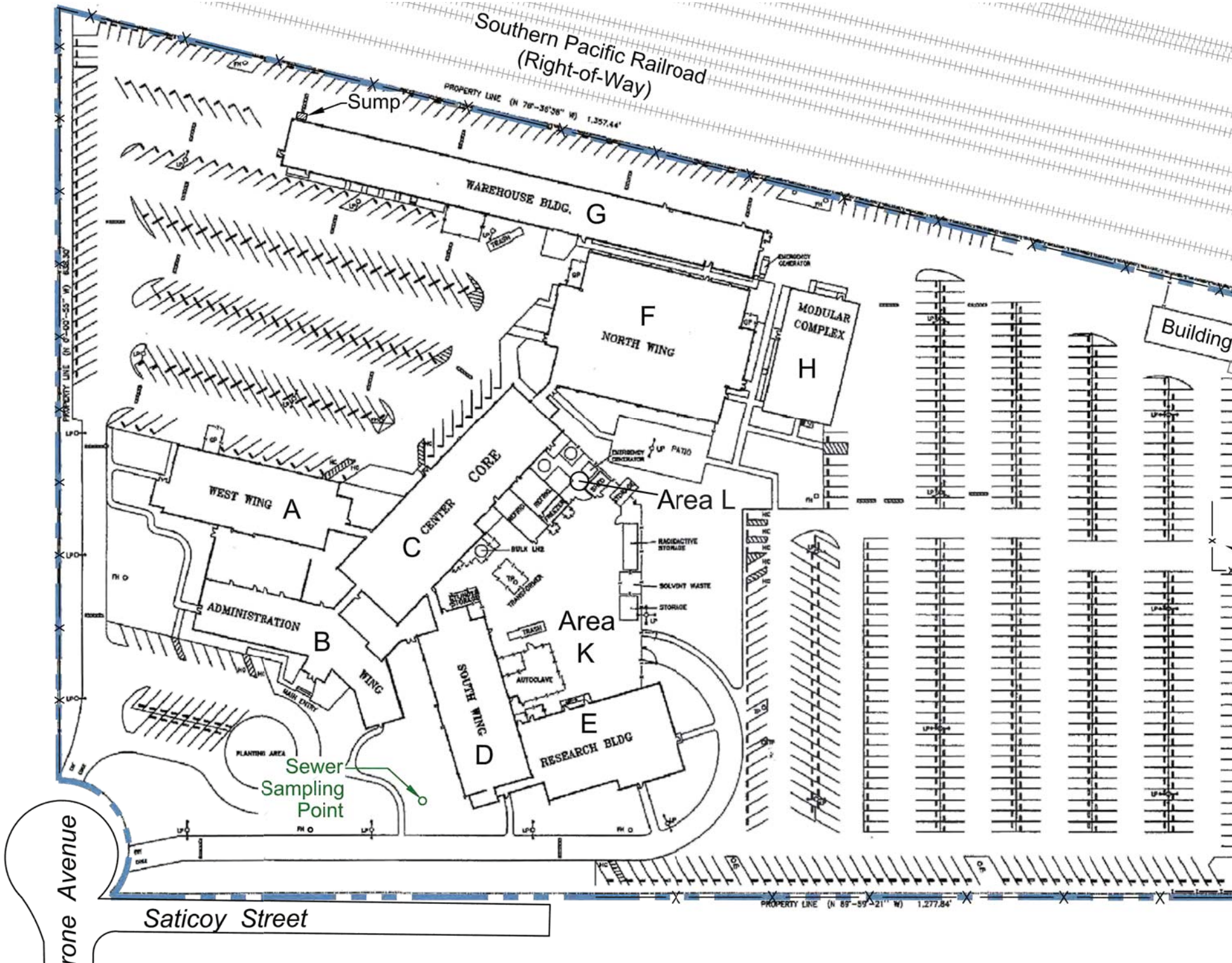
FIGURE 1: Site Location Map

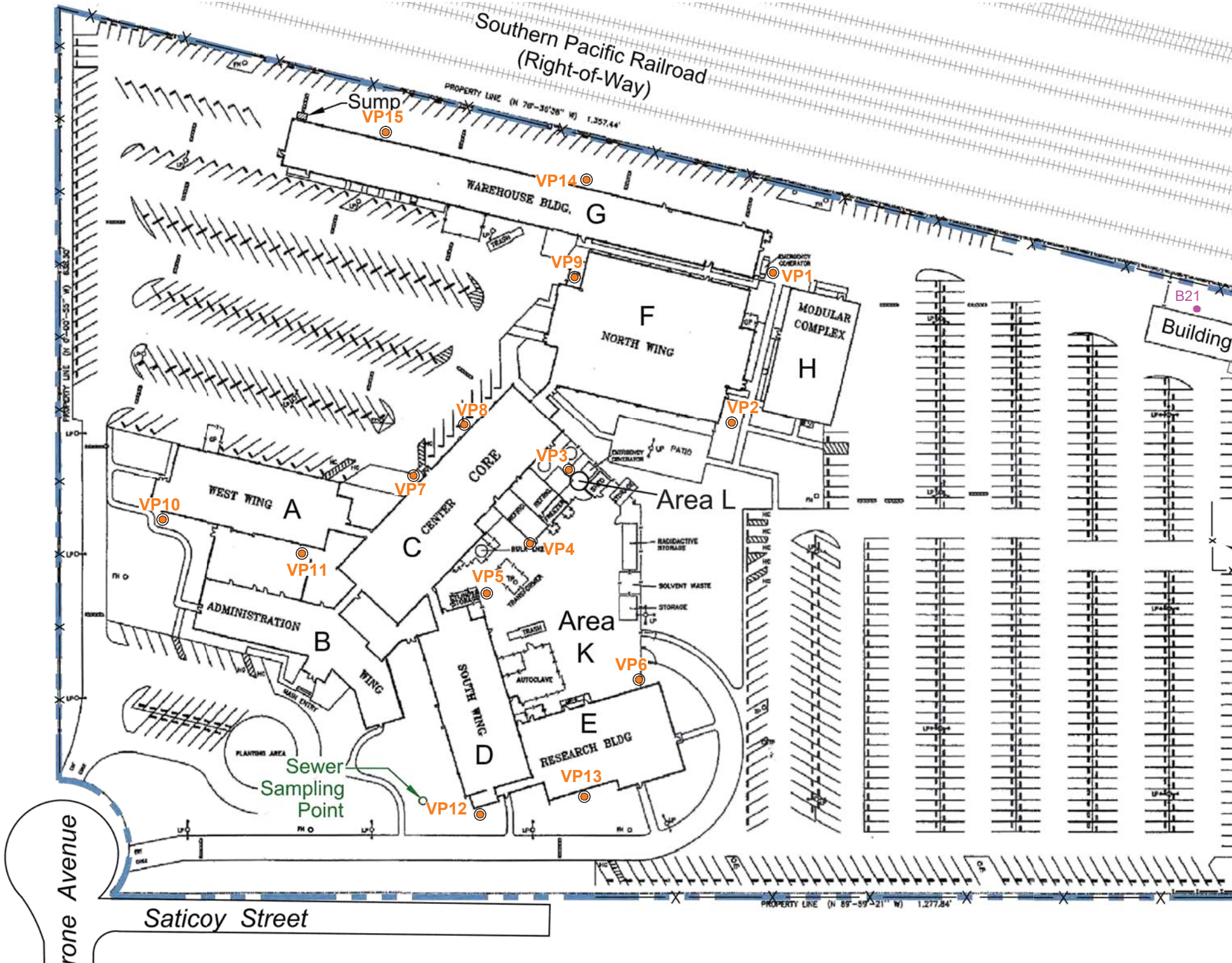
CLIENT: Los Angeles Department of Water and Power	SITE LOCATION: 7600 Tyrone Avenue Van Nuys, California
PROJECT #: LDWP-13-1198	

ALTA ENVIRONMENTAL
3777 Long Beach Blvd., Annex Bldg.
Long Beach, CA 90807
(562) 495-5777 www.altaenviron.com

DRAWN: KD	APPROVED: SM	NORTH
SCALE: NONE	DATE: 6/13/13	

W:\Clients H-M\LA City Dept of Water & Power (LDWP)\LDWP-13-1198 Tyrone Property\CAD files\Tyrone.dwg


Southern Pacific Railroad
(Right-of-Way)
Sump
WAREHOUSE BLDG. G
F
NORTH WING
MODULAR
COMPLEX
H
Building
WEST WING A
C CENTER CORE
Area L
ADMINISTRATION
B
WING
SOUTH WING D
Area
K
E
RESEARCH BLDG
Sewer
Sampling
Point
Saticoy Street


Southern Pacific Railroad
(Right-of-Way)
PROPERTY LINE (N 76°-36'58" W) 1,357.44'
Sump
VP15
VP14
WAREHOUSE BLDG. G
VP9
VP1
F
NORTH WING
MODULAR COMPLEX
H
B21
Building
VP8
VP2
VP3
VP7
CENTER CORE
C
WEST WING A
VP10
Area L
VP4
VP11
VP5
ADMINISTRATION B WING
SOLVENT WASTE
STORAGE
Area K
VP6
SOUTH WING D
E
RESEARCH BLDG
VP13
Sewer Sampling Point
VP12
Saticoy Street
PROPERTY LINE (N 89°-59'-21" W) 1,277.84'

Results of Geophysical Investigation

Area of Geophysical Investigation
Quest Diagnostics
7600 Tyrone Avenue
Van Nuys, California

Prepared for: **Alta Environmental Inc.**
Long Beach, California

Date of Investigation: May 17th, 2013

Prepared by:_____

RJ Weed, Senior Project Manager
Spectrum Geophysics
20434 Corisco Street
Chatsworth, CA 91311

Warranty:

Spectrum Geophysics was retained to conduct a geophysical investigation of the above facility to characterize the shallow subsurface. Our findings are subject to certain limitations due to site conditions and the instruments employed. We conducted this investigation in a manner consistent with our profession using similar methods. No other warranty as to the performance or deliverables is expressed or implied.

SPECTRUM GEOPHYSICS
"Revealing The Subsurface"
20434 Corisco Street
Chatsworth, CA 91311

Tel: 818-886-4500
Fax: 818-886-4511

Contents

Attached Figures

Results of Geophysical Investigation
Quest Diagnostics
7600 Tyrone Avenue
Van Nuys, California

Introduction

On May 17th, 2013, Spectrum Geophysics conducted a geophysical investigation on a portion of the Quest Diagnostics facility located in Van Nuys, California.

The purpose of the investigation was to delineate the surface trace of detectable steel underground storage tanks (USTs) within the area of investigation.

The area of investigation, as designated by Kristyn Drake of Alta Environmental, was soil covered and was roughly 1-acre in size.

Site interferences included reinforced concrete, bollards, chain-link fencing, large soil piles with debris, and scattered metallic surface debris.

Methods

The equipment used in this investigation consisted of a Geonics EM-61 high-sensitivity metal detector, a shallow-focus metal detector (M-scope), and electromagnetic (EM) utility-locating equipment. A NavCom SF2050-G GPS unit and a digital field computer were used during EM-61 data acquisition.

EM-61 High Sensitivity Metal Detector

The EM-61 high-sensitivity metal detector was used in an effort to delineate areas where metallic objects (such as underground storage tanks, and metal piping) may be buried. The EM-61 transmitter generates short pulses of electromagnetic energy that travel downward and outward and have a primary field associated with them. This energy becomes "trapped" in conductive materials and causes a secondary magnetic field to be generated in these materials. Between pulses, the receiver measures the voltage of the decay of this secondary magnetic field that is proportional to the conductivity of the subsurface materials.

EM-61 data acquisition
(archive photo)

EM-61 readings were collected along roughly parallel lines spaced approximately 2.5 feet apart within the accessible areas of the investigation and stored concurrently with GPS eastings and northings in a digital field computer. These data were processed in the field and used to generate contour maps to assist in identifying anomalous areas that may be caused by buried metallic features.

Electromagnetic (EM) Utility Location

Passive and active EM utility-locating methods were used in an effort to identify possible sources of EM-61 anomalies and to delineate the surface trace of detectable underground utilities and abandoned piping.

Electromagnetic (EM) utility location (archive photo)

Passive locating is possible when electrically conductive conduits are energized by ambient radio frequencies (RF) that are often produced by 50/60 cycle electrical, radio, audio, television, and communication transmissions. A receiver tuned to these frequencies can be used to locate the re-radiated signal emitted by the conductor (i.e., conduit).

Active locating is initiated by conducting an EM signal at a known frequency (8 and 33 kHz for this site) on a conduit exposed at the surface. A receiver, tuned to these frequencies, is then used to locate the signal maxima (or surface trace) of the applied signal.

Ground Penetrating Radar

EM-61 anomalies that could not be attributed to aboveground cultural features or detected underground conduits were further investigated using GPR methods. GPR data were collected over suspect areas and interpreted in the field for anomalies whose signatures might indicate the presence of features of interest.

Data collection using the Noggin GPR (archive photo)

A high frequency radio signal is transmitted into the ground via the antenna. As radio waves propagate into the ground, these

signals are reflected off structures with differing electrical properties. These reflected signals are then captured by the receiver and are presented as vertical profiles on the GPR unit.

The areal extents and/or surface traces of detected features were marked on the ground with spray paint.

Results

A map of the area of investigation is presented in Figure 1. A contour map of the EM-61 top coil data is presented in Figure 2.

EM-61

Fifteen distinct anomalies were observed on the EM-61 Top Coil Data contour map (Figure 2).

Anomaly A was located along Eastings 6428188 to 6428418 and between Northings 1899131 and 1829043. A gas line and a conduit were detected using EM utility-locating methods. Surface interference consisted of three steel drums, two concrete pads, a storm drain vault lid, a fence, and surface metallic debris that were observed in the area, however, they could not be determined as the sole sources of the anomaly. A storm channel was also noted in the area, however, because of depth limitations it could not be detected. GPR provided no further information as to a source.

Anomaly B was located along Eastings 6428311 to 6428325 and between Northings 1899066 and 1899052. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly C was located along Eastings 6428280 to 6428289 and between Northings 1898990 and 1898981. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly D was located along Eastings 6428276 to 6428289 and between Northings 1898962 and 1898949. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly E was located along Eastings 6428474 to 6428321 and between Northings 1898941 and 1898912. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly F was located along Eastings 6428373 to 6428390 and between Northings 1898944 and 1898916. A small buried metallic feature was detected using hand-held metal detection, however, it could not be verified as the sole source of the anomaly. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly G was located along Eastings 6428478 to 6428556 and between Northings 1899037 and 1899003. EM-utility locating methods and GPR provided no further information as to a source. The source(s) of this anomaly appear to be located in or beneath the soil/debris pile.

Anomaly H was located along Eastings 6428473 to 6428492 and between Northings 1898974 and 1898960. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly I was located along Eastings 6428455 to 6428396 and between Northings 1898930 and 1898915. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly J was located along Eastings 6428509 to 6428520 and between Northings 1898981 and 1898969. A small buried metallic feature was detected using hand held metal detection, however, it could not be verified as the sole source of the anomaly. EM-utility locating methods and GPR provided no further information as to a source although two conduits or possible footings may project to the south and one to the east as indicated by the linear trending (LT) anomalies.

Anomaly K was located along Eastings 6428529 to 6428549 and between Northings 1898971 and 1898956. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly L was located along Eastings 6428556 to 6428590 and between Northings 1899026 and 1829006. A storm channel was noted in the area, however, because of depth limitations it could not be detected. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly M was located along Eastings 6428591 to 6428605 and between Northings 1898942 and 1898959. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly N was located along Eastings 6428569 to 6428588 and between Northings 1898951 and 1898940. EM-utility locating methods and GPR provided no further information as to a source.

Anomaly O was located along Eastings 6428590 to 6428610 and between Northings 1898938 and 1898907. EM-utility locating methods and GPR provided no further information as to a source.

Several linear trending anomalies (see lines labled LT on Figure 1) were observed on the EM-61 contour maps. EM utility-locating methods did not identify conduits as a source, however, that does not preclude their presence. Typically LT anomalies are indicative

of conduits or a linear metal bearing feature such as building footings, however, numerous sources could cause a similar anomaly and some of these anomaly trends are more complex as multiple sources are likely present.

The north-south trending anomalous area located on the easternmost portion of the site was caused by a conduit and the fence.

Recommendations

We recommend a safe excavation of all cited anomalous areas and linear trend anomalies (LT) to determine their respective source(s).

We also recommend removal of all soil piles and debris as well as the reinforced concrete slabs in order to resurvey using metal detection methods in an effort to identify detectable buried metallic features in these areas. No distinctive anomalies could be determined on the northwest section of the area (with exception of *Anomaly B*) due to the presence of the numerous reinforced concrete slabs and other metallic or metal bearing features on the surface.

Limitations

EM-61

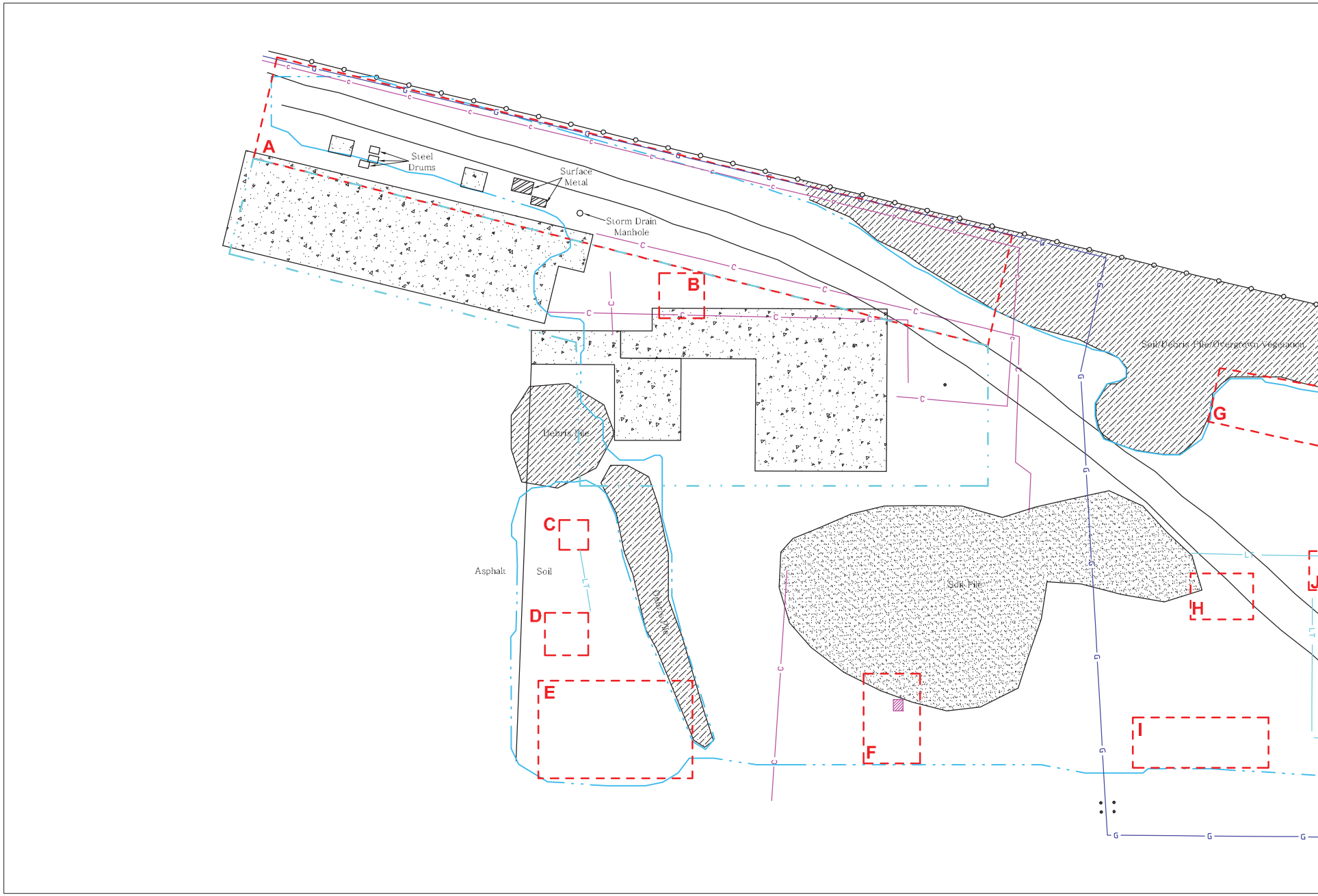
The EM-61 is capable of detecting a 55-gallon drum up to a depth of 3 meters under favorable conditions. We recommend a minimum 10-foot buffer between the survey area and any metallic or metal bearing surface cultural features such as cars, metal signs, or aboveground piping which could severely compromise the quality of the data. Reliable EM-61 data cannot be collected over areas covered with reinforced concrete.

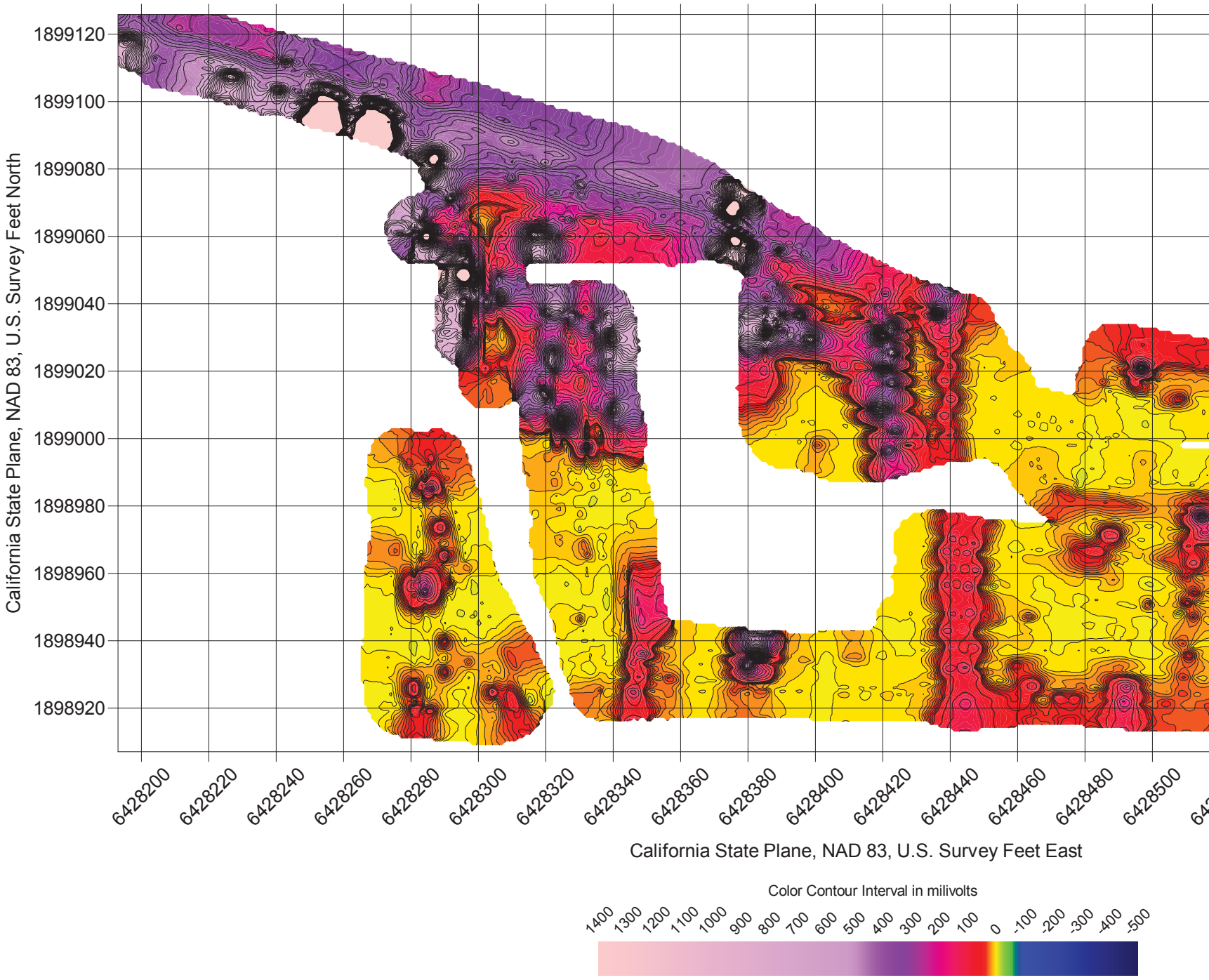
General

It should be understood that the location of subsurface objects and utilities is dependent upon the recognition of physical phenomena at the ground surface. These phenomena can be magnetic fields or electro-magnetic waves that give rise to a surface expression which in turn is interpreted as representative of subsurface objects. These waves, however, may be attenuated and/or distorted by a number of factors including soil moisture, corrosion, and proximity to other surface and subsurface facilities.

Spectrum cannot provide interpretation for the presence or absence of USTs or other buried metallic features in areas where vehicles/dumpsters/surface metallic features or soil piles are

present. We recommend the surface area be cleared of potential interferences and resurveyed.


A
B
C
D
E
F
G
H
I
Steel Drums
Surface Metal
Storm Drain Manhole
Soil/Debris Pile/Overgrown Vegetation
Debris Pile
Asphalt
Soil
Debris Pile
Soil Pile
Area of Geophysical Investigation
EM-61 Anomaly
Area requiring further investigation
Reinforced Concrete


1899120
1899100
1899080
1899060
1899040
1899020
1899000
1898980
1898960
1898940
1898920
California State Plane, NAD 83, U.S. Survey Feet North
6428200
6428220
6428240
6428260
6428280
6428300
6428320
6428340
6428360
6428380
6428400
6428420
6428440
6428460
6428480
6428500
California State Plane, NAD 83, U.S. Survey Feet East
Color Contour Interval in milivolts
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
-100
-200
-300
-400
-500

DEPARTMENT OF WATER & POWER
OF THE CITY OF LOS ANGELES
Power System
Integrated Support Services

ENVIRONMENTAL LABORATORY DATA REPORT

CLIENT: GEORGE FEAUSTLE

PROJECT: 7600 TYRONE AVE

REPORT NO.: C12054

TABLE OF CONTENTS

DEPARTMENT OF WATER & POWER
OF THE CITY OF LOS ANGELES
Power System
Integrated Support Services

Report No. C12054
COC 13-1321

ENVIRONMENTAL LABORATORY DATA REPORT

7600 TYRONE AVE, VAN NUYS
Soil Samples

Soil samples from 7600 Tyrone Ave, Van Nuys, were submitted to the Environmental Laboratory on May 28, 2013 for the determination of their Volatile Organic Compounds (VOC), Metals, Semi-Volatile Organic Compounds (SVOC), Total Extractable Petroleum Hydrocarbons (TEPH) including Motor Oil (MO) and Diesel Range Organic (DRO), Chlorinated Pesticides, Polychlorinated Biphenyls (PCBs), and Gasoline Range Organics (GRO) content.

Testing information including tests requested and test methods are listed below. All quality assurance data indicate that the results for these samples are of acceptable quality.

Analysis Requested	Method	Results	Analyzed by
VOC	EPA 8260 B	**Attachment #1**	Environmental Lab
Metals	EPA 6010B/7471	**Attachment #2**	Environmental Lab
TEPH/Diesel/Motor Oil	EPA 8015M	**Attachment #3**	Environmental Lab
GRO	EPA 8015B	**Attachment #4**	Environmental Lab
PCB	EPA 8082	**Attachment #5**	Weck Laboratories
Pesticides	EPA 8081	**Attachment #6 PENDING**	Weck Laboratories
SVOC	EPA 8270 C	**Attachment #7**	Weck Laboratories

An updated version of this report will be delivered upon completion of pesticide data.

If you have any questions, or if further information is required, please contact Mr. Jeremy Stoa at (213) 367-7266 or Mr. Kevin Han at (213) 367-7267.

Date Completed: 6/6/2013
Work Order No.: AHJ17
Job Card No.: J95550
Copies to: G. Feaustle
N. Liu
K. Han
J. Stoa
FileNet

Test Performed by: Environmental Lab
Weck Laboratories
Report By: JS Date: 6/06/13
Checked by: [signature] Date: 6/7/13

APPROVED BY: [signature] 6/7/13
Kevin Han Date
Interim Laboratory Manager
Environmental Laboratory

Environme l Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Po r
City of Los Angeles

Chain of Custody Record

COC #: 13-1321

Page 1 of 4

Report C# ____ JC# J95550 WO# AHJT7
Refrig#. R154 Shelf ____ Bin#. ____
Initial of Field Personnel: ____ No. of Field Test: ____

Sample Location: Tyrone property, 7600 Tyrone Ave, Van Nuys CA

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 B21-1' LN06205	5/28/13	0800							(6010B) (8015M) (8270C)		
2 B21-2' 06206	↓	0802	ARCHIVE	5035/ICE	5	ENCORE SLEEVE		SOIL	Title 22 Metals/TPH cc/SVOCs		
3 B21-3' 06207		0804			↓	↓	↓		(ARCHIVE) ↓		
4 B19-1' 06208		0810									
5 -2' 06209		0812	ARCHIVE		3	SLEEVE			OCPS (8081A) + As (6010B)		
6 -3' 06210		0814			3				(ARCHIVE) ↓		
7 B1-1' 06211		0825			3						
8 -2' 06212		0827	ARCHIVE						Lead (6010B)		
9 -3' 06213		0830							(ARCHIVE) ↓		
10 B22-1' 06214		0850			↓	↓	↓	↓			
11 -2' 06215		0852	ARCHIVE		5	ENCORE SLEEVE		SOIL	T-22 Metals/TPHcc/SVOCS		
12 -3' 06216		0854			↓	↓	↓		(ARCHIVE) ↓		
13 B25-1' 06217		0900									
14 -2' 06218		0902	ARCHIVE		7	ENCORE SLEEVE			T-22 Metals/TPHcc/SVOCs/VOCS (8260B)/PCBs (8082)		
15 -3' 06219		0904			↓	↓	↓		(ARCHIVE) ↓		
16 B4-1' 06220	↓	0910		↓	1	SLEEVE		↓	Pb (6010B)		

RUSH

Date & Time Stamp

COC13-1321
LADWP
2013 MAY 28 PM 1:35

RECD BY: ENV. CHEM. LAB

Chem Lab COC Form ©
Revision 08/01/02

Requester George Feaustle (K. Drake) Organization/Div. LADWP / ALTA ENVIRON.
Address ____ Tel. ____ Fax ____

Analyst: ____ Date ____
Approved: ____ Date ____

Priority
- 2-4 Hrs
- 1Day
- 2 Wks
- 4Wks
- Specify 1 week

BR
YC
TY
BT
DS

	Printed Name	Signature	Time	Date
Sampled by:	KRISTYN DRAKE (ALTA ENVIRONMENTAL)	[signature]	1300	5/28/13
Relinquished by:	K. DRAKE	[signature]	1330	5/28/13
Received by	T NGUYEN	[signature]	1335	5/28/13

LK RG KH DW

100002

Environmental Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Power
City of Los Angeles

Chain of Custody Record

COC #: 13-1321 Page 2 of 4

Report C# _____ JC# _____ WO# _____
Refrig#. _____ Shelf _____ Bin#. _____
Initial of Field Personnel: _____ No. of Field Test: _____

Sample Location: Tyrone Property

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 B4-2' 06221	5/28/13	0912	ARCHIVE	5oz/ICE	3	SLEEVE		SOIL	Lead (6010B) (ARCHIVE)		
2 -3' 06222		0914									
3 B3-1' 06223		0920									
4 -2' 06224		0922	ARCHIVE								
5 -3' 06225		0924			3	SLEEVE			Pb-Lead (6010B) (ARCHIVE)		
6 B2-1' 06226		0930									
7 -2' 06227		0932	ARCHIVE								
8 -3' 06228		0934							(ARCHIVE)		
9 B26-1' 06229		0940									
10 -2' 06230		0942	ARCHIVE		7	ENCORE SLEEVE			TTLC Metals/TPHcc/VOCs/SVOCs/PCBs (ARCHIVE)		
11 -3' 06231		0944									
12 B18-1' 06232		0950									
13 -2' 06233		0952	ARCHIVE		3	SLEEVE			CCPs (6081A) + As (6010B) (ARCHIVE)		
14 -3' 06234		0954									
15 B6-1' 06235		1000									
16 -2' 06236		1002	ARCHIVE		3	SLEEVE			Pb (6010B) (ARCHIVE)		

00003

Date & Time Stamp
LADWP 2013 MAY 28 PM 1:35
Chem Lab COC Form III
Revision: 08/01/02

Requester George Feaust-Pe / K. Drake Organization/Div. LADWP / Atlas Environ.
Address _____ Tel. _____ Fax _____

Analyst: _____ Date _____
Approved: _____ Date _____

RECD BY: CHEM LAB

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

Printed Name	Signature	Time	Date
Sampled by: K. Drake	Sampled by:		
Relinquished by: K. Drake	Relinquished by:	1300	5/28/13
Received by T NGUYEN	Received by	1330	
		1335	5/28/13

>> COC# Label Here <<

Environm[illegible] Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Po[illegible]er
City of Los Angeles

Chain of Custody Record

COC #: 13-1321 Page 3 of 4

Report C#_____ JC#_____ WO#_____
Refrig#._____ Shelf_____ Bin#._____
Initial of Field Personnel: No. of Field Test:

Sample Location: Tyrone Property

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 B6-3' LN06237	5/28/13	1004		~~HNO3~~/ICE	3	SLEEVE		SOIL	Pb (6010B)		
2 B8-1' 06238		1010		ICE	3	SLEEVE			Pb (6010B)		
3 -2' 06239		1012	ARCHIVE						(ARCHIVE)		
4 -3 06240		1014			3				TPH diesel + oil / SVOCs		
5 B29-1' 06241		1020							(ARCHIVE)		
6 -2' 06242		1022	ARCHIVE		3				Pb (6010B)		
7 -3 06243		1024							~~(ARCHIVE)~~ (KD)		
8 B5-1' 06244		1030							(ARCHIVE)		
9 -2' 06245		1032	ARCHIVE		3						
10 -3' 06246		1034							Pb (6010B)		
11 B7-1' 06247		1040							(ARCHIVE)		
12 -2' 06248		1042	ARCHIVE								
13 -3' 06249		1044							OCPs (8081A) + As (6010B)		
14 B20-1' 06250		1050							(ARCHIVE)		
15 -2' 06251		1052	ARCHIVE								
16 -3' 06252		1054									

Date & Time Stamp
LADWP
MAY 29 PM 1:35
RECD BY: ENV. CHEM LAB
Chem Lab COC Form #1
Revision: 08/01/02

>> COC# Label Here <<

Requester George Feasel (K. Drake) Organization/Div. LDWP / Alta Environ
Address _____ Tel. _____ Fax _____

Analyst: _____ Date _____
Approved: _____ Date _____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

	Printed Name	Signature	Time	Date
Sampled by:	K. Drake		1300	5/28/13
Relinquished by:	K. Drake		1330	5/28/13
Received by	T NGUYEN		1335	5/28/13

Environme l Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Po..er
City of Los Angeles
Chain of Custody Record

COC #: 13-132/ Page 1 of 1

Report C# _____ JC# _____ WO# _____
Refrig#. R154 Shelf _____ Bin#. _____
Initial of Field Personnel: _____ No. of Field Test: _____

Sample Location: Tyrone Property

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 B9-1' LN06253	5/28/13	1100		ICE	3			SOIL	PB (6010B) (ARCHIVE) ~~(ARCHIVE)~~		
2 -2' 06254		1102	ARCHIVE								
3 -3' 06255		1104									
4 B10-1 06256		1110									
5 -2' 06257		1112	ARCHIVE								
6 -3 06258		1114							ARCHIVE		
7 B30-1' 06259		1130									
8 -2' 06260		1132	ARCHIVE						TPH diesel/oil + SVOCs (ARCHIVE)		
9 -3' 06261		1134									
10 B11-1' 06262		1210									
11 -2' 06263		1212	ARCHIVE						PB(6010B) (ARCHIVE)		
12 -3 06264		1214									
13 ~~B12-1 LN~~ -2 -3											
14	5/29/13										
15 B17-1 -2 -3											
16											

100026

Date & Time Stamp
LADWP
2013 MAY 28 PM 1:35
RECD BY: ENV. CHEM LAB

Chem Lab COC Form #1
Revision 08/01/02

<< COC# Label Here >>

Requester George Feaustle/K. Drake Organization/Div. LADWP/ALTA Environ.
Address _____ Tel. _____ Fax _____

Analyst: _____ Date _____
Approved: _____ Date _____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify

Printed Name	Signature	Time	Date
Sampled by: K. Drake	Sampled by:	1300	5/28/13
Relinquished by: K. Drake	Relinquished by:	1330	5/28/13
Received by T NGUYEN	Received by:	1335	5/28/13

ATTACHMENT #1

VOLATILE ORGANIC COMPOUNDS
(VOC)

EPA METHOD 8260 B

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06217	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-3
LN06335	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-1
LN06337	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-3
LN06341	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-1

Compounds	MDL ug/kg	PQL ug/kg	LN06217 Amount ug/kg	LN06219 Amount ug/kg	LN06229 Amount ug/kg	LN06231 Amount ug/kg	LN06335 Amount ug/kg	LN06337 Amount ug/kg	LN06341 Amount ug/kg
Acetone	32	160.0	nd	nd	nd	nd	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Benzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	24	120.0	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
Bromoform	23	115.0	nd	nd	nd	nd	nd	nd	nd
Bromomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
Methyl ethyl ketone (MEK)	26	130.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd	nd	nd	nd	nd	nd	nd
Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd	nd	nd	nd	nd	nd	nd
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Chloroethane	42	210.0	nd	nd	nd	nd	nd	nd	nd
2-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd	nd	nd
Chloroform	30	150.0	nd	nd	nd	nd	nd	nd	nd
Chloromethane	70	350.0	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	27	135.0	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
Dichlorodifluoromethane	37	185.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	29	145.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	32	160.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	21	105.0	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	38	190.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	27	135.0	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nd	nd	nd	nd
Diisopropyl ether (DIPE)	26	130.0	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Hexachlorobutadiene	44	220.0	nd	nd	nd	nd	nd	nd	nd

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06217	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-3
LN06335	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-1
LN06337	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-3
LN06341	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-1

Compounds	MDL ug/kg	PQL ug/kg	LN06217 Amount ug/kg	LN06219 Amount ug/kg	LN06229 Amount ug/kg	LN06231 Amount ug/kg	LN06335 Amount ug/kg	LN06337 Amount ug/kg	LN06341 Amount ug/kg
2-Hexanone	21	105.0	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	31	155.0	nd	nd	nd	nd	nd	nd	nd
Iodomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd	nd	nd	nd	nd	nd	nd
Naphthalene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Propylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Styrene	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethylene	27	135.0	nd	nd	nd	nd	nd	nd	nd
Toluene	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	26	130.0	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Trichloroethylene	24	120.0	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	35	175.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Vinyl acetate	52	260.0	nd	nd	nd	nd	nd	nd	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd	nd	nd	nd	nd	nd	nd
m & p-Xylene	75	375.0	nd	nd	nd	nd	nd	nd	nd
o-Xylene	28	140.0	nd	nd	nd	nd	nd	nd	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	104.0%	103.7%	102.7%	103.3%	102.3%	103.3%	102.7%
SURR: Dibromofluoromethane	80 - 120	97.0%	96.0%	95.0%	96.3%	95.3%	95.3%	95.3%
SURR: Toluene-d8	81 - 117	93.7%	92.3%	90.0%	92.3%	92.3%	92.3%	92.3%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics

EPA SW-846 Method 8260

COC 13-1321
COC 13-1326

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06343	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-3

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN06343 Amount (ug/kg)
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
2-Butanone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
n-Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane (EDB)	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd
Hexachlorobutadiene	44	220.0	nd

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06343	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-3

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN06343 Amount (ug/kg)
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
Methyl iodide (Iodomethane)	20	100.0	nd
4-Methyl-2-pentanone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene (Phenylethylene)	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene (PCE)	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene (TCE)	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	
SURR: Bromofluorobenzene	74 - 121	103.7%
SURR: Dibromofluoromethane	80 - 120	95.0%
SURR: Toluene-d8	81 - 117	92.7%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/28/2013	5/28/2013	6/3/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/28/2013	5/28/2013	6/3/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Hexachlorobutadiene	44	220.0	nd
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
Iodomethane	20	100.0	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	
SURR: Bromofluorobenzene	74 - 121	102.0%
SURR: Dibromofluoromethane	80 - 120	96.7%
SURR: Toluene-d8	81 - 117	92.7%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

Project No: 7600 TYRONE

(RWQCB LabForm10A;Ver12/94)

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 6/3/13 ANALYTICAL METHOD: USEPA 8260

BATCH #: LN06217 LN LN06217 LN06219 LN06229 LN06231 LN06335 LN06337 LN06341 LN06343

LAB SAMPLE I.D.: LN06217 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	25.3	84.3	30.0	25.9	86.3	2.3 %	59-172	22%
Benzene	ND	30.0	29.9	99.7	30.0	30.5	102	2.3 %	66-142	21%
Trichloroethylene	ND	30.0	30.8	103	30.0	31.3	104	0.97 %	62-137	24%
Toluene	ND	30.0	30.6	102	30.0	31.5	105	2.9 %	59-139	21%
Chlorobenzene	ND	30.0	35.7	119	30.0	36.6	122	2.5 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 6/3/13 ANALYTICAL METHOD: USEPA 8260

SUPPLY SOURCE: LAB LCS I.D.: Q8087

LOT NUMBER: UNIT: ug/kg

DATE OF SOURCE:

ANALYTE	LCS RESULT ug/kg	TRUE VALUE ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	29.9	30	99.7	70 - 130
1,2-Dichloroethane	32.1	30	107.0	70 - 130
1,4-Dichlorobenzene	31.3	30	104.3	70 - 130
Benzene	28.9	30	96.3	70 - 130
Bromoform	33	30	110.0	70 - 130
Carbon Tetrachloride	27	30	90.0	70 - 130
Tetrachloroethylene	28.2	30	94.0	70 - 130
Trichloroethylene	27.2	30	90.7	70 - 130

Analyst: B. Tiu

Reviewed by: R. Gentallen

200007

ATTACHMENT #2

METALS/MERCURY

EPA METHOD 6010B/7471

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06205	5/28/13	5/28/13	5/31/13	7600 TYRONE, B21-1
LN06207	5/28/13	5/28/13	6/3/13	7600 TYRONE, B21-3
LN06214	5/28/13	5/28/13	6/3/13	7600 TYRONE, B22-1
LN06216	5/28/13	5/28/13	6/3/13	7600 TYRONE, B22-3
LN06217	5/28/13	5/28/13	6/4/13	7600 TYRONE, B25-1
LN06219	5/28/13	5/28/13	6/4/13	7600 TYRONE, B25-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06205 mg/kg	LN06207 mg/kg	LN06214 mg/kg	LN06216 mg/kg	LN06217 mg/kg	LN06219 mg/kg
Antimony	500	15	6010	1.0	5.0	100	4.6J	3.7J	2.9J	3.6J	3.3J	4.2J
Arsenic	500	5	6010	2.6	13.0	100	ND	ND	ND	ND	ND	ND
Barium	10000	100	6010	3.7	18.5	100	263	254	170	201	194	281
Beryllium	75	0.75	6010	0.7	3.5	100	ND	ND	ND	ND	ND	ND
Cadmium	100	1	6010	0.6	3.0	100	3.4	3.0J	2.6J	2.4J	2.42J	3.0J
Chromium (T)	500	5	6010	1.4	7.0	100	22	22.5	20	18	16.4	23
Cobalt	8000	80	6010	1.0	5.0	100	17	16	10	14	13.5	16
Copper	2500	25	6010	1.6	8.0	100	22	18	15	15	13.5	19
Lead	1000	5	6010	0.9	4.5	100	18	14	48	11	10.5	13
Molybdenum	3500	350	6010	0.3	1.5	100	ND	ND	ND	ND	ND	ND
Nickel	2000	20	6010	0.6	3.0	100	22	24	16	18	16.6	24
Selenium	100	1	6010	1.6	8.0	100	ND	ND	ND	ND	ND	ND
Silver	500	5	6010	1.5	7.5	100	ND	ND	7.5J	ND	ND	ND
Thallium	700	7	6010	1.5	7.5	100	ND	ND	ND	ND	ND	ND
Vanadium	2400	24	6010	1.8	9.00	100	42	34	26	28	28	37
Zinc	5000	250	6010	1.9	9.50	100	77	61	191	48	48	60
Mercury	20	0.2	7471	0.0200	0.100	100	0.024	0.015	0.042	0.013	0.009	0.013

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst : YC

COC 13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06229	5/28/13	5/28/13	6/5/13	7600 TYRONE, B26-1
LN06231	5/28/13	5/28/13	6/5/13	7600 TYRONE, B26-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06229 mg/kg	LN06231 mg/kg
Antimony	500	15	6010	1.0	5.0	100	1.3J	3.1J
Arsenic	500	5	6010	2.6	13.0	100	ND	ND
Barium	10000	100	6010	3.7	18.5	100	61	195
Beryllium	75	0.75	6010	0.7	3.5	100	ND	ND
Cadmium	100	1	6010	0.6	3.0	100	1.1J	2.9J
Chromium (T)	500	5	6010	1.4	7.0	100	7.8	18
Cobalt	8000	80	6010	1.0	5.0	100	5.5	15
Copper	2500	25	6010	1.6	8.0	100	11.6	13
Lead	1000	5	6010	0.9	4.5	100	6.0	11
Molybdenum	3500	350	6010	0.3	1.5	100	ND	ND
Nickel	2000	20	6010	0.6	3.0	100	9.3	20
Selenium	100	1	6010	1.6	8.0	100	ND	ND
Silver	500	5	6010	1.5	7.5	100	ND	ND
Thallium	700	7	6010	1.5	7.5	100	ND	ND
Vanadium	2400	24	6010	1.8	9.00	100	18	31
Zinc	5000	250	6010	1.9	9.50	100	26	56
Mercury	20	0.2	7471	0.0200	0.100	100	0.021	0.012

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst : YC

300002

ENVIRONMENTAL LABORATORY DATA REPORT

13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED			SAMPLE DESCRIPTION						
LN06208	5/28/13	5/28/13	5/30/13			7600 TYRONE, B19-1						
LN06210	5/28/13	5/28/13	5/30/13			7600 TYRONE, B19-3						
LN06232	5/28/13	5/28/13	6/4/13			7600 TYRONE, B18-1						
LN06234	5/28/13	5/28/13	6/4/13			7600 TYRONE, B18-3						
LN06250	5/28/13	5/28/13	6/4/13			7600 TYRONE, B20-1						
LN06252	5/28/13	5/28/13	6/4/13			7600 TYRONE, B20-3						
	LIMIT	LIMIT										
	TTLC	STLC					LN06208	LN06210	LN06232	LN06234	LN06250	LN06252
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Arsenic	500	5	6010	2.6	13.0	100	ND	ND	ND	ND	ND	ND

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst : YC

ENVIRONMENTAL LABORATORY DATA REPORT

13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

Method : 6010

Matrix: Soil

Project: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06211	5/28/13	5/28/13	5/30/13	7600 TYRONE B1-1
LN06213	5/28/13	5/28/13	5/30/13	7600 TYRONE B1-3
LN06220	5/28/13	5/28/13	5/30/13	7600 TYRONE B4-1
LN06222	5/28/13	5/28/13	5/30/13	7600 TYRONE B4-3
LN06223	5/28/13	5/28/13	5/30/13	7600 TYRONE B3-1
LN06225	5/28/13	5/28/13	5/30/13	7600 TYRONE B3-3

	LIMIT	LIMIT										
	TTLC	STLC					LN06211	LN06213	LN06220	LN06222	LN06223	LN06225
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Lead	1000	5	6010	0.9	4.5	100	9.8	12.0	11.0	12.0	12.0	12.0

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06226	5/28/13	5/28/13	5/30/13	7600 TYRONE B2-1
LN06228	5/28/13	5/28/13	5/30/13	7600 TYRONE B2-3
LN06235	5/28/13	5/28/13	5/30/13	7600 TYRONE B6-1
LN06237	5/28/13	5/28/13	6/3/13	7600 TYRONE B6-3
LN06238	5/28/13	5/28/13	6/3/13	7600 TYRONE B8-1
LN06240	5/28/13	5/28/13	6/3/13	7600 TYRONE B8-3

	LIMIT	LIMIT										
	TTLC	STLC					LN06226	LN06228	LN06235	LN06237	LN06238	LN06240
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Lead	1000	5	6010	0.9	4.5	100	11.0	15.0	5.7	10.0	24.0	72.0

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: YC

ENVIRONMENTAL LABORATORY DATA REPORT

13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

Method : 6010

Matrix: Soil

Project: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06244	5/28/13	5/28/13	6/4/13	7600 TYRONE B5-1
LN06246	5/28/13	5/28/13	6/4/13	7600 TYRONE B5-3
LN06247	5/28/13	5/28/13	6/4/13	7600 TYRONE B7-1
LN06249	5/28/13	5/28/13	6/4/13	7600 TYRONE B7-3
LN06253	5/28/13	5/28/13	6/4/13	7600 TYRONE B9-1
LN06255	5/28/13	5/28/13	6/4/13	7600 TYRONE B9-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06244 mg/Kg	LN06246 mg/Kg	LN06247 mg/Kg	LN06249 mg/Kg	LN06253 mg/Kg	LN06255 mg/Kg
Lead	1000	5	6010	0.9	4.5	100	52.0	11.0	50.0	15.0	22.0	14.0

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06256	5/28/13	5/28/13	5/30/13	7600 TYRONE B10-1
LN06258	5/28/13	5/28/13	5/30/13	7600 TYRONE B10-3
LN06262	5/28/13	5/28/13	5/30/13	7600 TYRONE B11-1
LN06264	5/28/13	5/28/13	6/3/13	7600 TYRONE B11-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06256 mg/Kg	LN06258 mg/Kg	LN06262 mg/Kg	LN06264 mg/Kg
Lead	1000	5	6010	0.9	4.5	100	15.0	15.0	13.0	17.0

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: YC

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06205 Dup	05/28/13	5/28/13	5/31/13	7600 TYRONE, B21-1
LN06217 Dup	5/28/13	5/28/13	6/4/13	7600 TYRONE, B25-1

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06205 (mg/kg)	LN06217 (mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	500	15	6010	1.0	5.0	1	4.5J	3.6J				
Arsenic	500	5	6010	2.6	13.0	1	ND	ND				
Barium	10000	100	6010	3.7	18.5	1	228	213				
Beryllium	75	0.75	6010	0.7	3.5	1	ND	ND				
Cadmium	100	1	6010	0.6	3.0	1	3.0J	2.4J				
Chromium (T)	2500	5	6010	1.4	7.0	1	20	17				
Cobalt	8000	80	6010	1.0	5.0	1	16	14				
Copper	2500	25	6010	1.6	8.0	1	20	15				
Lead	1000	5	6010	0.9	4.5	1	20	11.1				
Molybdenum	3500	350	6010	0.3	1.5	1	ND	ND				
Nickel	2000	20	6010	0.6	3.0	1	21	17.5				
Selenium	100	1	6010	1.6	8.0	1	ND	ND				
Silver	500	5	6010	1.5	7.5	1	ND	ND				
Thallium	700	7	6010	1.5	7.5	1	ND	ND				
Vanadium	2400	24	6010	1.8	9.0	1	38	26				
Zinc	5000	250	6010	1.9	9.5	1	79	49				

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
R.L. - Report Limit
D. F. - Dilution Factor

** - exceed TTLC limit
* - exceed 10x STLC limit
J - concentration above MDL and below RL

Analyst: YC

PROJECT: 7600 TYRONE

COC 13-1321

QA/QC Report

I. Blank Spike (BS) / Blank Spike Duplicate (BSD)

DATE ANALYZED: 05/31/13

ANALYTICAL METHOD USEPA 6010/7000

BATCH #: $TTLCS-7732 LN06205 LN06207 LN06214 LN06216

LAB SAMPLE I.D.: BLANK SOIL

UNIT: (Circle One) (mg/kg) mg/L

METAL	SAMPLE RESULT	SPIKE CONC	BS	%BS	(DUP) SPIKE CONC	BSD	%BSD	RPD	BS/BSD % REC LIMIT	RPD LIMIT
Antimony	1.0	200	149	74.0	200	148	73.5	0.7%	14 - 89	< 30
Arsenic	ND	200	194	97.0	200	196	98.0	1.0%	70 - 130	< 30
Barium	---	---	---	---	---	---	---	---	---	---
Beryllium	ND	200	187	93.5	200	188	94.0	0.5%	70 - 130	< 30
Cadmium	ND	200	180	90.0	200	183	91.5	1.7%	70 - 130	< 30
Chromium (T)	ND	200	190	95.0	200	191	95.5	0.5%	70 - 130	< 30
Cobalt	ND	200	194	97.0	200	197	98.5	1.5%	70 - 130	< 30
Copper	ND	200	193	96.5	200	193	96.5	0.0%	70 - 130	< 30
Lead	5.0	200	189	92.0	200	189	92.0	0.0%	70 - 130	< 30
Molybdenum	0.5	200	194	96.8	200	195	97.3	0.5%	70 - 130	< 30
Nickel	1.6	200	193	95.7	200	195	96.7	1.0%	70 - 130	< 30
Selenium	ND	200	180	90.0	200	181	90.5	0.6%	70 - 130	< 30
Silver	---	---	---	---	---	---	---	---	---	---
Thallium	ND	200	105	52.5	200	104	52.0	1.0%	---	---
Vanadium	8.5	200	202	96.8	200	204	97.8	1.0%	70 - 130	< 30
Zinc	4.0	200	175	85.5	200	177	86.5	1.2%	70 - 130	< 30

BS = Blank Spike BSD = Blank Spike Duplicate RPD = Relative Percent Difference

%BS = Percent Recovery of Blank Spike %BSD = Percent Recovery of Blank Spike Duplicate

Analyst: YC

PROJECT: 7600 TYRONE

COC 13-1321

QA/QC Report

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE ANALYZED: 05/30/13 ANALYTICAL METHOD: USEPA 6010/7000

BATCH #: $TTLCS-77 (LN06205 LN06207 LN06214 LN06216)

LAB SAMPLE I.D.: LN06205 UNIT: (Circle One) (mg/kg)

METAL	SAMPLE RESULT	SPIKE CONC	MS	%MS	(DUP) SPIKE CONC	MSD	%MSD	RPD	MS/MSD % REC. LIMIT	RPD LIMIT
Antimony	4.6	200	44	19.7	200	44	19.7	0.0%	14 - 89	< 30
Arsenic	ND	200	180	90.0	200	184	92.0	2.2%	70 - 130	< 30
Barium	---	200	---	---	200	---	---	---	70 - 130	< 30
Beryllium	ND	200	184	92.0	200	185	92.5	0.5%	70 - 130	< 30
Cadmium	3.4	200	165	80.8	200	167	81.8	1.2%	70 - 130	< 30
Chromium (T)	22	200	203	90.5	200	206	92.0	1.6%	70 - 130	< 30
Cobalt	17	200	186	84.5	200	189	86.0	1.8%	70 - 130	< 30
Copper	22	200	205	91.5	200	207	92.5	1.1%	70 - 130	< 30
Lead	18	200	178	80.0	200	180	81.0	1.2%	70 - 130	< 30
Molybdenum	ND	200	169	84.5	200	171	85.5	1.2%	70 - 130	< 30
Nickel	22	200	201	89.5	200	205	91.5	2.2%	70 - 130	< 30
Selenium	ND	200	171	85.5	200	175	87.5	2.3%	70 - 130	< 30
Silver	---	200	---	---	200	---	---	---	70 - 130	< 30
Thallium	---	200	---	---	200	---	---	---	70 - 130	< 30
Vanadium	42	200	231	94.5	200	233	95.5	1.1%	70 - 130	< 30
Zinc	77	200	248	85.5	200	243	83.0	3.0%	70 - 130	< 30
Mercury	0.024	0.250	0.298	110	0.250	0.293	108	1.5%	70 - 130	< 30

MS = Matrix Spike MSD = Matrix Spike Duplicate RPD = Relative Percent Difference
%MS = Percent Recovery of Matrix Spike %MSD = Percent Recovery of Matrix Spike Duplicate

Analyst: YC

PROJECT: 7600 TYRONE

COC 13-1321

II. Calibration and Laboratory Quality Control Check Sample (LCS)

DATE ANALYZED: 05/31/13

SUPPLY SOURCE: VHG

LOT NUMBER: 201-0040

ANALYTICAL: USEPA 6010/7000

LAB LCS I.D.: Q8732

UNIT: (Circle One) (mg/kg) mg/L

METAL	LCS RESULTS mg/kg	TRUE VALUE mg/kg	% Recovery	Acceptable Range % Recovery
Antimony	64	80.0	80.0	48 - 84
Arsenic	405	400	101	70 - 130
Barium	394	400	99	70 - 130
Beryllium	10	10.0	100	70 - 130
Cadmium	10.1	10.0	101	70 - 130
Chromium (T)	79	80.0	99	70 - 130
Cobalt	41	40.0	103	70 - 130
Copper	81	80.0	101	70 - 130
Lead	82	80.0	103	70 - 130
Molybdenum	---	---	---	---
Nickel	81	80.0	101	70 - 130
Selenium	186	200	93	70 - 130
Silver	10	10.0	100	70 - 130
Thallium	39	80.0	49	70 - 130
Vanadium	89	80.0	111	70 - 130
Zinc	180	200	90	70 - 130

Analyst: YC

6/7/13

ATTACHMENT #3

TOTAL EXTRACTABLE PETROLEUM
HYDROCARBONS (TEPH)
MOTOR OIL (MO)
DIESEL RANGE ORGANIC (DRO)

EPA METHOD 8015M

COC No. 13-1321

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015M
TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST. ID	RUN BATCH
LN06205	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B21-1	GC Agilent	053113
LN06207	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B21-3	GC Agilent	053113
LN06214	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B22-1	GC Agilent	053113
LN06216	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B22-3	GC Agilent	053113
LN06217	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B25-1	GC Agilent	053113
LN06219	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B25-3	GC Agilent	053113
LN06229	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B26-1	GC Agilent	053113

	MDL / PQL mg/kg	MB mg/kg	LN06205 mg/kg	LN06207 mg/kg	LN06214 mg/kg	LN06216 mg/kg	LN06217 mg/kg	LN06219 mg/kg	LN06229 mg/kg
Dilution Factor		1	1	1	1	1	1	1	1
TEPH (C9 - C36)	4 / 20	ND	12.6 J	ND	12.6 J	ND	12.5 J	ND	4.4 J
DRO (C10 - C28)	29 / 145	ND	ND	ND	ND	ND	ND	ND	ND
MOTOR OIL	35 / 175	ND	ND	ND	ND	ND	ND	ND	ND
Quality Control Data		MB							
Surrogate/Internal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooctadecane	(60 - 140)	90.5%	87.5%	79.5%	77.5%	97.5%	99.5%	79.5%	104%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1321

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015M
TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST. ID	RUN BATCH
LN06231	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B26-3	GC Agilent	060209
LN06241	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B29-1	GC Agilent	060209
LN06243	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B29-3	GC Agilent	060209
LN06259	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B30-1	GC Agilent	060209
LN06261	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B30-3	GC Agilent	060209

	MDL / PQL mg/kg		LN06231 mg/kg	LN06241 mg/kg	LN06243 mg/kg	LN06259 mg/kg	LN06261 mg/kg		
Dilution Factor			1	1	1	1	1		
TEPH (C9 - C36)	4 / 20		ND	12.6 J	4.1 J	12.7 J	12.4 J		
DRO (C10 - C28)	29 / 145		ND	ND	ND	ND	ND		
MOTOR OIL	35 / 175		ND	ND	ND	ND	ND		
Quality Control Data									
Surrogate/Internal Std.	% ACP		% RC	% RC	% RC	% RC	% RC		
1-Chlorooctadecane	(60 - 140)		102%	71.5%	110%	105%	115%		

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - above MDL but below PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1321

ENVIRONMENTAL LABORATORY

QA/QC REPORT
TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST ID	RUN BATCH
LN06216 DUP	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B22-3	GC Agilent	053113

	MDL / PQL mg/kg		LN06216 DUP mg/kg
Dilution Factor			1
TEPH (C9 - C36)	4 / 20		ND
DRO (C10 - C28)	29 / 145		ND
MOTOR OIL	35 / 175		ND

Quality Control Data			
Surrogate/Internal Std.	% ACP		% RC
1-Chlorooctadecane	(60 - 140)		88.5%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - above MDL but below PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1321

ENVIRONMENTAL LABORATORY

QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL
Project: 7600 TYRONE

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.: Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit: mg/kg

ANALYTE		RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
TEPH		053113	5/31/2013	280	209	74.6	70 - 130
DRO		053113	5/31/2013	500	379	75.8	70 - 130
MO		053113	5/31/2013	500	436	87.2	70 - 130

Analysts J. Yi

Reviewed by R. Gentallan
6/4/13

400004

ATTACHMENT #4

GASOLINE RANGE ORGANICS (GRO)

EPA METHOD 8015B

COC No. 13-1321

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015B
GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INSTR. ID	RUN LOG/BATCH
LN06205	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B21-1	AG gas	20130530
LN06207	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B21-3	AG gas	20130530
LN06214	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B22-1	AG gas	20130530
LN06216	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B22-3	AG gas	20130530
LN06217	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B25-1	AG gas	20130530
LN06219	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B25-3	AG gas	20130530
LN06229	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B26-1	AG gas	20130530

	MDL / PQL mg/kg	MB mg/kg	LN06205 mg/kg	LN06207 mg/kg	LN06214 mg/kg	LN06216 mg/kg	LN06217 mg/kg	LN06219 mg/kg	LN06229 mg/kg
Dilution Factor	1	1	1	1	1	1	1	1	1
Gasoline (GRO)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality Control Data									
Surrogate/Internal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorobenzene-d4	(70 - 130)	109%	107%	104%	108%	108%	108%	107%	108%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

COC No. 13-1321

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015B
GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INSTR. ID	RUN LOG/BATCH
LN06231	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B26-3	AG gas	20130530
LN06241	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B29-1	AG gas	20130530
LN06243	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B29-3	AG gas	20130530
LN06259	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B30-1	AG gas	20130530
LN06261	05/28/13	05/28/13	05/29/13	05/30/13	7600 TYRONE, B30-3	AG gas	20130530

	MDL / PQL mg/kg	MB mg/kg	LN06231 mg/kg	LN06241 mg/kg	LN06243 mg/kg	LN06259 mg/kg	LN06261 mg/kg
Dilution Factor	1	1	1	1	1	1	1
Gasoline (GRO)	1.1 / 5.5	ND	ND	ND	ND	ND	ND
Quality Control Data							
Surrogate/Internal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC
	(70 - 130)	109%	108%	107%	107%	108%	107%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

ENVIRONMENTAL LABORATORY

QA/QC REPORT

GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: 7600 TYRONE

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Reporting Unit: mg/kg

SAMPLE	BATCH	SAMPLE	SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN06205	20130530	ND	22.0	22.4	102%	22.9	104%	2.2%	70-130	30

SPIKE CONC = Spiking Concentration;
MS = Matrix Spike
MSD = Matrix Spike Duplicate
% MS = Percent Recovery of MS
% MSD = Percent Recovery of MSD
RPD = Relative Percent Difference
ACP = Acceptable Range of Percent

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No. Q8637

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130530	5/29/2013	22.0	20.9	95.0	70 - 130

Analyzed by *B. Estrada*

Reviewed by *R. Gentallan*

6/4/13

ATTACHMENT #5

POLYCHLORINATED BIPHENYLS (PCBs)

EPA Method 8082

ENVIRONMENTAL LABORATORY DATA REPORT

ANALYTICAL RESULT FOR PCBs by EPA600/SR-94/112/8082
(Polychlorinated Biphenyls)
Sample Matrix: Soil (Low Level)

LABORATORY LOG NO	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTECD	DATE ANALYZED	SAMPLE DESCRIPTION
LN06217	5/28/2013	5/28/2013	5/30/2013	5/31/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	5/30/2013	5/31/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	5/30/2013	5/31/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	5/30/2013	5/31/2013	7600 TYRONE, B26-3

PARAMETERS	MDL/PQL (mg/kg)	LN06217 (mg/kg)	LN06219 (mg/kg)	LN06229 (mg/kg)	LN06231 (mg/kg)			
PCB - 1221	0.07/0.2	ND	ND	ND	ND			
PCB - 1232	0.07/0.2	ND	ND	ND	ND			
PCB - 1242	0.07/0.2	ND	ND	ND	ND			
PCB - 1248	0.07/0.2	ND	ND	ND	ND			
PCB - 1254	0.07/0.2	ND	ND	ND	ND			
PCB - 1260	0.07/0.2	ND	ND	ND	ND			
SURROGATE PARAMETERS	QC LIMIT %	% Recovery	% Recovery	% Recovery	% Recovery			
DECACHLOROBIPHENYL	70 - 130	94	95	98	106			

MDL - Method Detection Limit

ND - Not Detected; below method detection limit

Analyst: D. Wong

Reviewed by: 6/4/13

Project Name : Tyrone Property, 7600 Tyrone Ave., Van Nuys, CA

QA/QC Report

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

ANALYTICAL METHOD: USEPA 600/SR-94/112
USEPA 8082

DATE ANALYZED: 06/04/13
BATCH #: 53013
LAB SAMPLE I.D.: LN06364

UNIT: mg/kg

PARAMETERS	SAMPLE RESULT	SPIKE CONC	MS	%MS	(DUP) SPIKE CONC	MSD	%MSD	RPD	MS/MSD % REC LIMIT	% RPD LIMIT
PCB-1242	0.0	25.0	20.8	83	25.0	20.3	81	2%	70 - 130	30
PCB-1260	0.0	25.0	NR	NR	25.0	NR	NR	NR	70 - 130	30

NR = Not reported dut to matrix interference.

MS - Matrix Spike *MSD - Matrix Spike Dupllicate* *RPD - Relative Percent Difference*
%MS - Percent Recovery of Matrix Spike *%MSD - Percent Recovery of Matrix Spike Duplicate*

Reviewed by: 6/4/13

Project Name : Tyrone Property, 7600 Tyrone Ave., Van Nuys, CA

II. Laboratory Control Check Sample (LCS)

DATE ANALYZED: 06/04/13 ANALYTICAL METHOD: USEPA 600/SR-94/112

BATCH No. 053013 UNIT: mg/kg USEPA 8082

PARAMETERS		LCS1 TRUE CONC	LCS1 RESULT	LCS1 % RC	LCS2 RESULT	LCS2 % RC	ACCEPTANCE LIMITS (%)
PCB - 1242		25.0	19.6	78	NA	NA	80 - 120
PCB - 1260		25.0	21.9	88	NA	NA	80 - 120

Note: Low LCS recovery for 1242 (78%). Although LCS is 2% below acceptance limit, it should have no significant effect on the quality of this batch of analyses.

%RC - Percent Recovery
NA - Not Analyzed
Batch - ten samples per batch

Reviewed by: 6/4/13

ATTACHMENT #6

PESTICIDES

EPA METHOD 8081

ATTACHMENT #7

Semi Volatile Organic Compounds
(SVOCs)

EPA METHOD 8270C

CERTIFICATE OF ANALYSIS

Client:	LADWP - Environmental Laboratory 1630 North Main Street, Bldg. 7, Rm 311 Los Angeles, CA 90012	**Report Date:**	06/05/13 16:04
		Received Date:	05/30/13 09:50
		Turn Around:	5 workdays
Attention:	Kevin Han	**Work Order #:**	3E30014
Phone:	213-367-7267		49067-3, COC #13-1321,26
Fax:	(213) 367-7285	**Client Project:**	7600 Tyrone Ave,COC #13-1321,26, WO#

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Kevin Han :

Enclosed are the results of analyses for samples received 05/30/13 09:50 with the Chain of Custody document. The samples were received in good condition, at 2.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Kim G Tu
Project Manager

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
LN06205	Client		3E30014-01	Solid	05/28/13 08:08
LN06207	Client		3E30014-02	Solid	05/28/13 08:04
LN06214	Client		3E30014-03	Solid	05/28/13 08:50
LN06216	Client		3E30014-04	Solid	05/28/13 08:54
LN06217	Client		3E30014-05	Solid	05/28/13 09:00
LN06219	Client		3E30014-06	Solid	05/28/13 09:04
LN06229	Client		3E30014-07	Solid	05/28/13 09:40
LN06231	Client		3E30014-08	Solid	05/28/13 09:44
LN06241	Client		3E30014-09	Solid	05/28/13 10:20
LN06243	Client		3E30014-10	Solid	05/28/13 10:24
LN06259	Client		3E30014-11	Solid	05/28/13 11:30
LN06261	Client		3E30014-12	Solid	05/28/13 11:34
LN06329	Client		3E30014-13	Solid	05/29/13 08:30
LN06331	Client		3E30014-14	Solid	05/29/13 08:34
LN06335	Client		3E30014-15	Solid	05/29/13 09:00
LN06337	Client		3E30014-16	Solid	05/29/13 09:04
LN06338	Client		3E30014-17	Solid	05/29/13 09:06
LN06340	Client		3E30014-18	Solid	05/29/13 09:10
LN06341	Client		3E30014-19	Solid	05/29/13 09:30
LN06343	Client		3E30014-20	Solid	05/29/13 09:34

ANALYSES

Semivolatile Organic Compounds by GC/MS

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-01 **LN06205**

Sampled: 05/28/13 08:08 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 16:04 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.085	0.47	0.47	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.47	0.47	mg/kg	1	
1,3-Dichlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.47	0.47	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.47	0.47	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	23	23	mg/kg	1	
2,4-Dinitrotoluene	ND	0.094	0.47	0.47	mg/kg	1	
2,6-Dinitrotoluene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chloronaphthalene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chlorophenol	ND	0.094	0.47	0.47	mg/kg	1	
2-Methylnaphthalene	ND	0.085	0.47	0.47	mg/kg	1	
2-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
2-Nitrophenol	ND	0.21	0.47	0.47	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.3	2.3	mg/kg	1	
3-Nitroaniline	ND	0.14	0.47	0.47	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.7	4.7	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.066	0.47	0.47	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.47	0.47	mg/kg	1	
4-Chloroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.085	0.47	0.47	mg/kg	1	
4-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Nitrophenol	ND	0.14	0.47	0.47	mg/kg	1	
Acenaphthene	ND	0.085	0.47	0.47	mg/kg	1	
Acenaphthylene	ND	0.085	0.47	0.47	mg/kg	1	
Aniline	ND	0.22	0.47	0.47	mg/kg	1	
Anthracene	ND	0.075	0.47	0.47	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.094	0.47	0.47	mg/kg	1	
Benzidine	ND	1.2	4.7	4.7	mg/kg	1	
Benzo (a) anthracene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (a) pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Benzo (b) fluoranthene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (g,h,i) perylene	**0.10**	0.056	0.94	0.94	mg/kg	1	J
Benzo (k) fluoranthene	ND	0.12	0.47	0.47	mg/kg	1	
Benzoic acid	ND	1.8	23	23	mg/kg	1	
Benzyl alcohol	ND	0.13	0.47	0.47	mg/kg	1	

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-01 **LN06205**

Sampled: 05/28/13 08:08 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 16:04 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.085	0.47	0.47	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.47	0.47	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.47	0.47	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.47	0.47	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.47	0.47	mg/kg	1	
Carbazole	ND	0.085	0.47	0.47	mg/kg	1	
Chrysene	ND	0.085	0.47	0.47	mg/kg	1	
Dibenzo (a,h) anthracene	**0.099**	0.047	0.94	0.94	mg/kg	1	J
Dibenzofuran	ND	0.085	0.47	0.47	mg/kg	1	
Diethyl phthalate	ND	0.056	0.47	0.47	mg/kg	1	
Dimethyl phthalate	ND	0.83	2.3	2.3	mg/kg	1	
Di-n-butyl phthalate	ND	0.075	0.47	0.47	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.47	0.47	mg/kg	1	
Fluoranthene	ND	0.10	0.47	0.47	mg/kg	1	
Fluorene	ND	0.066	0.47	0.47	mg/kg	1	
Hexachlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
Hexachlorobutadiene	ND	0.085	0.47	0.47	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.47	0.47	mg/kg	1	
Hexachloroethane	ND	0.066	0.47	0.47	mg/kg	1	
Indeno (1,2,3-cd) pyrene	**0.15**	0.085	0.94	0.94	mg/kg	1	J
Isophorone	ND	0.094	0.47	0.47	mg/kg	1	
Naphthalene	ND	0.10	0.47	0.47	mg/kg	1	
Nitrobenzene	ND	0.10	0.47	0.47	mg/kg	1	
N-Nitrosodimethylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.066	0.47	0.47	mg/kg	1	
Pentachlorophenol	**0.39**	0.15	0.47	0.47	mg/kg	1	J
Phenanthrene	ND	0.075	0.47	0.47	mg/kg	1	
Phenol	ND	0.14	0.47	0.47	mg/kg	1	
Pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Pyridine	ND	0.047	0.94	0.94	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*70 %*	Conc:*33.0*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*75 %*	Conc:*17.7*		*39-100*	%		
Surr: 2-Fluorophenol	*93 %*	Conc:*43.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*79 %*	Conc:*18.5*		*49-105*	%		
Surr: Phenol-d5	*87 %*	Conc:*40.7*		*36-105*	%		
Surr: Terphenyl-d14	*96 %*	Conc:*22.5*		*36-106*	%		

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-02 **LN06207**

Sampled: 05/28/13 08:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 16:34 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.085	0.47	0.47	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.47	0.47	mg/kg	1	
1,3-Dichlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.47	0.47	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.47	0.47	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	24	24	mg/kg	1	
2,4-Dinitrotoluene	ND	0.094	0.47	0.47	mg/kg	1	
2,6-Dinitrotoluene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chloronaphthalene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chlorophenol	ND	0.094	0.47	0.47	mg/kg	1	
2-Methylnaphthalene	ND	0.085	0.47	0.47	mg/kg	1	
2-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
2-Nitrophenol	ND	0.21	0.47	0.47	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.4	2.4	mg/kg	1	
3-Nitroaniline	ND	0.14	0.47	0.47	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.7	4.7	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.066	0.47	0.47	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.47	0.47	mg/kg	1	
4-Chloroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.085	0.47	0.47	mg/kg	1	
4-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Nitrophenol	ND	0.14	0.47	0.47	mg/kg	1	
Acenaphthene	ND	0.085	0.47	0.47	mg/kg	1	
Acenaphthylene	ND	0.085	0.47	0.47	mg/kg	1	
Aniline	ND	0.22	0.47	0.47	mg/kg	1	
Anthracene	ND	0.075	0.47	0.47	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.094	0.47	0.47	mg/kg	1	
Benzidine	ND	1.2	4.7	4.7	mg/kg	1	
Benzo (a) anthracene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (a) pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Benzo (b) fluoranthene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.057	0.94	0.94	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.47	0.47	mg/kg	1	
Benzoic acid	ND	1.8	24	24	mg/kg	1	
Benzyl alcohol	ND	0.13	0.47	0.47	mg/kg	1	

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800005

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-02 **LN06207**

Sampled: 05/28/13 08:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 16:34 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.085	0.47	0.47	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.47	0.47	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.47	0.47	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.47	0.47	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.47	0.47	mg/kg	1	
Carbazole	ND	0.085	0.47	0.47	mg/kg	1	
Chrysene	ND	0.085	0.47	0.47	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.047	0.94	0.94	mg/kg	1	
Dibenzofuran	ND	0.085	0.47	0.47	mg/kg	1	
Diethyl phthalate	ND	0.057	0.47	0.47	mg/kg	1	
Dimethyl phthalate	ND	0.83	2.4	2.4	mg/kg	1	
Di-n-butyl phthalate	ND	0.075	0.47	0.47	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.47	0.47	mg/kg	1	
Fluoranthene	ND	0.10	0.47	0.47	mg/kg	1	
Fluorene	ND	0.066	0.47	0.47	mg/kg	1	
Hexachlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
Hexachlorobutadiene	ND	0.085	0.47	0.47	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.47	0.47	mg/kg	1	
Hexachloroethane	ND	0.066	0.47	0.47	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.085	0.94	0.94	mg/kg	1	
Isophorone	ND	0.094	0.47	0.47	mg/kg	1	
Naphthalene	ND	0.10	0.47	0.47	mg/kg	1	
Nitrobenzene	ND	0.10	0.47	0.47	mg/kg	1	
N-Nitrosodimethylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.066	0.47	0.47	mg/kg	1	
Pentachlorophenol	ND	0.15	0.47	0.47	mg/kg	1	
Phenanthrene	ND	0.075	0.47	0.47	mg/kg	1	
Phenol	ND	0.14	0.47	0.47	mg/kg	1	
Pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Pyridine	ND	0.047	0.94	0.94	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*58 %*	Conc:27.2		*40-97*	%		
Surr: 2-Fluorobiphenyl	*64 %*	Conc:15.2		*39-100*	%		
Surr: 2-Fluorophenol	*73 %*	Conc:34.2		*26-115*	%		
Surr: Nitrobenzene-d5	*67 %*	Conc:15.8		*49-105*	%		
Surr: Phenol-d5	*72 %*	Conc:33.8		*36-105*	%		
Surr: Terphenyl-d14	*73 %*	Conc:17.3		*36-106*	%		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-03 **LN06214**

Sampled: 05/28/13 08:50 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/04/13 20:08 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.089	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.079	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.099	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.079	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.079	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.099	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.089	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.089	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.089	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.089	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.079	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.099	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.079	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.99	0.99	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

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800007

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-03 **LN06214**

Sampled: 05/28/13 08:50 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 20:08 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.089	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.49	0.49	mg/kg	1	
Carbazole	ND	0.089	0.49	0.49	mg/kg	1	
Chrysene	ND	0.089	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.99	0.99	mg/kg	1	
Dibenzofuran	ND	0.089	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.87	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.079	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.079	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.089	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.089	0.99	0.99	mg/kg	1	
Isophorone	ND	0.099	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.089	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.089	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.079	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.079	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.99	0.99	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*62 %*	Conc:*30.4*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*69 %*	Conc:*17.1*		*39-100*	%		
Surr: 2-Fluorophenol	*79 %*	Conc:*38.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*70 %*	Conc:*17.3*		*49-105*	%		
Surr: Phenol-d5	*76 %*	Conc:*37.5*		*36-105*	%		
Surr: Terphenyl-d14	*81 %*	Conc:*20.1*		*36-106*	%		

800008

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-04 **LN06216**

Sampled: 05/28/13 08:54 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/04/13 20:38 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.088	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.098	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.098	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.088	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.088	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.088	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.088	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.078	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.098	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.98	0.98	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-04 **LN06216**

Sampled: 05/28/13 08:54 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 20:38 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.088	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.49	0.49	mg/kg	1	
Carbazole	ND	0.088	0.49	0.49	mg/kg	1	
Chrysene	ND	0.088	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.98	0.98	mg/kg	1	
Dibenzofuran	ND	0.088	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.86	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.078	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.088	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.088	0.98	0.98	mg/kg	1	
Isophorone	ND	0.098	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.078	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.98	0.98	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*52 %*	Conc:*25.5*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*63 %*	Conc:*15.4*		*39-100*	%		
Surr: 2-Fluorophenol	*71 %*	Conc:*35.0*		*26-115*	%		
Surr: Nitrobenzene-d5	*65 %*	Conc:*16.0*		*49-105*	%		
Surr: Phenol-d5	*70 %*	Conc:*34.3*		*36-105*	%		
Surr: Terphenyl-d14	*72 %*	Conc:*17.6*		*36-106*	%		

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-05 **LN06217**

Sampled: 05/28/13 09:00 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 21:08 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.089	0.50	0.50	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.50	0.50	mg/kg	1	
1,3-Dichlorobenzene	ND	0.079	0.50	0.50	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.50	0.50	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.50	0.50	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2,4-Dinitrophenol	ND	3.8	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.099	0.50	0.50	mg/kg	1	
2,6-Dinitrotoluene	ND	0.079	0.50	0.50	mg/kg	1	
2-Chloronaphthalene	ND	0.079	0.50	0.50	mg/kg	1	
2-Chlorophenol	ND	0.099	0.50	0.50	mg/kg	1	
2-Methylnaphthalene	ND	0.089	0.50	0.50	mg/kg	1	
2-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
2-Nitrophenol	ND	0.22	0.50	0.50	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.50	0.50	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	5.0	5.0	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.50	0.50	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.50	0.50	mg/kg	1	
4-Chloroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.089	0.50	0.50	mg/kg	1	
4-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Nitrophenol	ND	0.15	0.50	0.50	mg/kg	1	
Acenaphthene	ND	0.089	0.50	0.50	mg/kg	1	
Acenaphthylene	ND	0.089	0.50	0.50	mg/kg	1	
Aniline	ND	0.23	0.50	0.50	mg/kg	1	
Anthracene	ND	0.079	0.50	0.50	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.099	0.50	0.50	mg/kg	1	
Benzidine	ND	1.2	5.0	5.0	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.50	0.50	mg/kg	1	
Benzo (a) pyrene	ND	0.079	0.50	0.50	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.50	0.50	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.99	0.99	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.50	0.50	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.50	0.50	mg/kg	1	

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800011

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-05 **LN06217**

Sampled: 05/28/13 09:00 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 21:08 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.089	0.50	0.50	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.50	0.50	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.50	0.50	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.50	0.50	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.50	0.50	mg/kg	1	
Carbazole	ND	0.089	0.50	0.50	mg/kg	1	
Chrysene	ND	0.089	0.50	0.50	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.050	0.99	0.99	mg/kg	1	
Dibenzofuran	ND	0.089	0.50	0.50	mg/kg	1	
Diethyl phthalate	ND	0.059	0.50	0.50	mg/kg	1	
Dimethyl phthalate	ND	0.87	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.079	0.50	0.50	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.50	0.50	mg/kg	1	
Fluoranthene	ND	0.11	0.50	0.50	mg/kg	1	
Fluorene	ND	0.069	0.50	0.50	mg/kg	1	
Hexachlorobenzene	ND	0.079	0.50	0.50	mg/kg	1	
Hexachlorobutadiene	ND	0.089	0.50	0.50	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.50	0.50	mg/kg	1	
Hexachloroethane	ND	0.069	0.50	0.50	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.089	0.99	0.99	mg/kg	1	
Isophorone	ND	0.099	0.50	0.50	mg/kg	1	
Naphthalene	ND	0.11	0.50	0.50	mg/kg	1	
Nitrobenzene	ND	0.11	0.50	0.50	mg/kg	1	
N-Nitrosodimethylamine	ND	0.089	0.50	0.50	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.089	0.50	0.50	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.50	0.50	mg/kg	1	
Pentachlorophenol	ND	0.16	0.50	0.50	mg/kg	1	
Phenanthrene	ND	0.079	0.50	0.50	mg/kg	1	
Phenol	ND	0.15	0.50	0.50	mg/kg	1	
Pyrene	ND	0.079	0.50	0.50	mg/kg	1	
Pyridine	ND	0.050	0.99	0.99	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*49 %*	Conc:*24.4*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*59 %*	Conc:*14.6*		*39-100*	%		
Surr: 2-Fluorophenol	*66 %*	Conc:*32.6*		*26-115*	%		
Surr: Nitrobenzene-d5	*61 %*	Conc:*15.1*		*49-105*	%		
Surr: Phenol-d5	*65 %*	Conc:*32.3*		*36-105*	%		
Surr: Terphenyl-d14	*62 %*	Conc:*15.3*		*36-106*	%		

800012

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-06 LN06219

Sampled: 05/28/13 09:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/04/13 21:39 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.080	0.45	0.45	mg/kg	1	
1,2-Dichlorobenzene	ND	0.098	0.45	0.45	mg/kg	1	
1,3-Dichlorobenzene	ND	0.071	0.45	0.45	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.45	0.45	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.098	0.45	0.45	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.098	0.45	0.45	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.45	0.45	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2,4-Dinitrophenol	ND	3.4	22	22	mg/kg	1	
2,4-Dinitrotoluene	ND	0.089	0.45	0.45	mg/kg	1	
2,6-Dinitrotoluene	ND	0.071	0.45	0.45	mg/kg	1	
2-Chloronaphthalene	ND	0.071	0.45	0.45	mg/kg	1	
2-Chlorophenol	ND	0.089	0.45	0.45	mg/kg	1	
2-Methylnaphthalene	ND	0.080	0.45	0.45	mg/kg	1	
2-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
2-Nitrophenol	ND	0.20	0.45	0.45	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.3	2.2	2.2	mg/kg	1	
3-Nitroaniline	ND	0.13	0.45	0.45	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.5	4.5	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.062	0.45	0.45	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.098	0.45	0.45	mg/kg	1	
4-Chloroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.080	0.45	0.45	mg/kg	1	
4-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Nitrophenol	ND	0.13	0.45	0.45	mg/kg	1	
Acenaphthene	ND	0.080	0.45	0.45	mg/kg	1	
Acenaphthylene	ND	0.080	0.45	0.45	mg/kg	1	
Aniline	ND	0.21	0.45	0.45	mg/kg	1	
Anthracene	ND	0.071	0.45	0.45	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.089	0.45	0.45	mg/kg	1	
Benzidine	ND	1.1	4.5	4.5	mg/kg	1	
Benzo (a) anthracene	ND	0.062	0.45	0.45	mg/kg	1	
Benzo (a) pyrene	ND	0.071	0.45	0.45	mg/kg	1	
Benzo (b) fluoranthene	ND	0.062	0.45	0.45	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.054	0.89	0.89	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.45	0.45	mg/kg	1	
Benzoic acid	ND	1.7	22	22	mg/kg	1	
Benzyl alcohol	ND	0.12	0.45	0.45	mg/kg	1	

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-06 **LN06219**

Sampled: 05/28/13 09:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 21:39 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.080	0.45	0.45	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.098	0.45	0.45	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.12	0.45	0.45	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.45	0.45	mg/kg	1	
Butyl benzyl phthalate	ND	0.13	0.45	0.45	mg/kg	1	
Carbazole	ND	0.080	0.45	0.45	mg/kg	1	
Chrysene	ND	0.080	0.45	0.45	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.045	0.89	0.89	mg/kg	1	
Dibenzofuran	ND	0.080	0.45	0.45	mg/kg	1	
Diethyl phthalate	ND	0.054	0.45	0.45	mg/kg	1	
Dimethyl phthalate	ND	0.79	2.2	2.2	mg/kg	1	
Di-n-butyl phthalate	ND	0.071	0.45	0.45	mg/kg	1	
Di-n-octyl phthalate	ND	0.12	0.45	0.45	mg/kg	1	
Fluoranthene	ND	0.098	0.45	0.45	mg/kg	1	
Fluorene	ND	0.062	0.45	0.45	mg/kg	1	
Hexachlorobenzene	ND	0.071	0.45	0.45	mg/kg	1	
Hexachlorobutadiene	ND	0.080	0.45	0.45	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.45	0.45	mg/kg	1	
Hexachloroethane	ND	0.062	0.45	0.45	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.080	0.89	0.89	mg/kg	1	
Isophorone	ND	0.089	0.45	0.45	mg/kg	1	
Naphthalene	ND	0.098	0.45	0.45	mg/kg	1	
Nitrobenzene	ND	0.098	0.45	0.45	mg/kg	1	
N-Nitrosodimethylamine	ND	0.080	0.45	0.45	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.080	0.45	0.45	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.062	0.45	0.45	mg/kg	1	
Pentachlorophenol	ND	0.14	0.45	0.45	mg/kg	1	
Phenanthrene	ND	0.071	0.45	0.45	mg/kg	1	
Phenol	ND	0.13	0.45	0.45	mg/kg	1	
Pyrene	ND	0.071	0.45	0.45	mg/kg	1	
Pyridine	ND	0.045	0.89	0.89	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*51 %*	Conc:*22.8*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*64 %*	Conc:*14.3*		*39-100*	%		
Surr: 2-Fluorophenol	*73 %*	Conc:*32.8*		*26-115*	%		
Surr: Nitrobenzene-d5	*67 %*	Conc:*14.9*		*49-105*	%		
Surr: Phenol-d5	*71 %*	Conc:*31.9*		*36-105*	%		
Surr: Terphenyl-d14	*74 %*	Conc:*16.5*		*36-106*	%		

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800014

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-07 **LN06229**

Sampled: 05/28/13 09:40 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 22:09 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.085	0.47	0.47	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.47	0.47	mg/kg	1	
1,3-Dichlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.47	0.47	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.47	0.47	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	23	23	mg/kg	1	
2,4-Dinitrotoluene	ND	0.094	0.47	0.47	mg/kg	1	
2,6-Dinitrotoluene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chloronaphthalene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chlorophenol	ND	0.094	0.47	0.47	mg/kg	1	
2-Methylnaphthalene	ND	0.085	0.47	0.47	mg/kg	1	
2-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
2-Nitrophenol	ND	0.21	0.47	0.47	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.3	2.3	mg/kg	1	
3-Nitroaniline	ND	0.14	0.47	0.47	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.7	4.7	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.066	0.47	0.47	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.47	0.47	mg/kg	1	
4-Chloroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.085	0.47	0.47	mg/kg	1	
4-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Nitrophenol	ND	0.14	0.47	0.47	mg/kg	1	
Acenaphthene	ND	0.085	0.47	0.47	mg/kg	1	
Acenaphthylene	ND	0.085	0.47	0.47	mg/kg	1	
Aniline	ND	0.22	0.47	0.47	mg/kg	1	
Anthracene	ND	0.075	0.47	0.47	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.094	0.47	0.47	mg/kg	1	
Benzidine	ND	1.2	4.7	4.7	mg/kg	1	
Benzo (a) anthracene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (a) pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Benzo (b) fluoranthene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.056	0.94	0.94	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.47	0.47	mg/kg	1	
Benzoic acid	ND	1.8	23	23	mg/kg	1	
Benzyl alcohol	ND	0.13	0.47	0.47	mg/kg	1	

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800015

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-07 **LN06229**

Sampled: 05/28/13 09:40 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 22:09 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.085	0.47	0.47	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.47	0.47	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.47	0.47	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.47	0.47	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.47	0.47	mg/kg	1	
Carbazole	ND	0.085	0.47	0.47	mg/kg	1	
Chrysene	ND	0.085	0.47	0.47	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.047	0.94	0.94	mg/kg	1	
Dibenzofuran	ND	0.085	0.47	0.47	mg/kg	1	
Diethyl phthalate	ND	0.056	0.47	0.47	mg/kg	1	
Dimethyl phthalate	ND	0.83	2.3	2.3	mg/kg	1	
Di-n-butyl phthalate	ND	0.075	0.47	0.47	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.47	0.47	mg/kg	1	
Fluoranthene	ND	0.10	0.47	0.47	mg/kg	1	
Fluorene	ND	0.066	0.47	0.47	mg/kg	1	
Hexachlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
Hexachlorobutadiene	ND	0.085	0.47	0.47	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.47	0.47	mg/kg	1	
Hexachloroethane	ND	0.066	0.47	0.47	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.085	0.94	0.94	mg/kg	1	
Isophorone	ND	0.094	0.47	0.47	mg/kg	1	
Naphthalene	ND	0.10	0.47	0.47	mg/kg	1	
Nitrobenzene	ND	0.10	0.47	0.47	mg/kg	1	
N-Nitrosodimethylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.066	0.47	0.47	mg/kg	1	
Pentachlorophenol	ND	0.15	0.47	0.47	mg/kg	1	
Phenanthrene	ND	0.075	0.47	0.47	mg/kg	1	
Phenol	ND	0.14	0.47	0.47	mg/kg	1	
Pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Pyridine	ND	0.047	0.94	0.94	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*46 %*	Conc:*21.5*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*57 %*	Conc:*13.4*		*39-100*	%		
Surr: 2-Fluorophenol	*62 %*	Conc:*29.0*		*26-115*	%		
Surr: Nitrobenzene-d5	*58 %*	Conc:*13.7*		*49-105*	%		
Surr: Phenol-d5	*61 %*	Conc:*28.8*		*36-105*	%		
Surr: Terphenyl-d14	*82 %*	Conc:*19.2*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-08 **LN06231**

Sampled: 05/28/13 09:44 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 22:39 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.077	0.43	0.43	mg/kg	1	
1,2-Dichlorobenzene	ND	0.094	0.43	0.43	mg/kg	1	
1,3-Dichlorobenzene	ND	0.068	0.43	0.43	mg/kg	1	
1,4-Dichlorobenzene	ND	0.10	0.43	0.43	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.094	0.43	0.43	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.094	0.43	0.43	mg/kg	1	
2,4-Dichlorophenol	ND	0.11	0.43	0.43	mg/kg	1	
2,4-Dimethylphenol	ND	0.10	0.43	0.43	mg/kg	1	
2,4-Dinitrophenol	ND	3.2	21	21	mg/kg	1	
2,4-Dinitrotoluene	ND	0.085	0.43	0.43	mg/kg	1	
2,6-Dinitrotoluene	ND	0.068	0.43	0.43	mg/kg	1	
2-Chloronaphthalene	ND	0.068	0.43	0.43	mg/kg	1	
2-Chlorophenol	ND	0.085	0.43	0.43	mg/kg	1	
2-Methylnaphthalene	ND	0.077	0.43	0.43	mg/kg	1	
2-Methylphenol	ND	0.10	0.43	0.43	mg/kg	1	
2-Nitroaniline	ND	0.11	0.43	0.43	mg/kg	1	
2-Nitrophenol	ND	0.19	0.43	0.43	mg/kg	1	
3 & 4-Methylphenol	ND	0.10	0.43	0.43	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.3	2.1	2.1	mg/kg	1	
3-Nitroaniline	ND	0.13	0.43	0.43	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.3	4.3	4.3	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.060	0.43	0.43	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.094	0.43	0.43	mg/kg	1	
4-Chloroaniline	ND	0.11	0.43	0.43	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.077	0.43	0.43	mg/kg	1	
4-Nitroaniline	ND	0.11	0.43	0.43	mg/kg	1	
4-Nitrophenol	ND	0.13	0.43	0.43	mg/kg	1	
Acenaphthene	ND	0.077	0.43	0.43	mg/kg	1	
Acenaphthylene	ND	0.077	0.43	0.43	mg/kg	1	
Aniline	ND	0.20	0.43	0.43	mg/kg	1	
Anthracene	ND	0.068	0.43	0.43	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.085	0.43	0.43	mg/kg	1	
Benzidine	ND	1.1	4.3	4.3	mg/kg	1	
Benzo (a) anthracene	ND	0.060	0.43	0.43	mg/kg	1	
Benzo (a) pyrene	ND	0.068	0.43	0.43	mg/kg	1	
Benzo (b) fluoranthene	ND	0.060	0.43	0.43	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.051	0.85	0.85	mg/kg	1	
Benzo (k) fluoranthene	ND	0.11	0.43	0.43	mg/kg	1	
Benzoic acid	ND	1.6	21	21	mg/kg	1	
Benzyl alcohol	ND	0.12	0.43	0.43	mg/kg	1	

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-08 **LN06231**

Sampled: 05/28/13 09:44 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 22:39 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.077	0.43	0.43	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.094	0.43	0.43	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.12	0.43	0.43	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.10	0.43	0.43	mg/kg	1	
Butyl benzyl phthalate	ND	0.13	0.43	0.43	mg/kg	1	
Carbazole	ND	0.077	0.43	0.43	mg/kg	1	
Chrysene	ND	0.077	0.43	0.43	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.043	0.85	0.85	mg/kg	1	
Dibenzofuran	ND	0.077	0.43	0.43	mg/kg	1	
Diethyl phthalate	ND	0.051	0.43	0.43	mg/kg	1	
Dimethyl phthalate	ND	0.75	2.1	2.1	mg/kg	1	
Di-n-butyl phthalate	ND	0.068	0.43	0.43	mg/kg	1	
Di-n-octyl phthalate	ND	0.12	0.43	0.43	mg/kg	1	
Fluoranthene	ND	0.094	0.43	0.43	mg/kg	1	
Fluorene	ND	0.060	0.43	0.43	mg/kg	1	
Hexachlorobenzene	ND	0.068	0.43	0.43	mg/kg	1	
Hexachlorobutadiene	ND	0.077	0.43	0.43	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.10	0.43	0.43	mg/kg	1	
Hexachloroethane	ND	0.060	0.43	0.43	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.077	0.85	0.85	mg/kg	1	
Isophorone	ND	0.085	0.43	0.43	mg/kg	1	
Naphthalene	ND	0.094	0.43	0.43	mg/kg	1	
Nitrobenzene	ND	0.094	0.43	0.43	mg/kg	1	
N-Nitrosodimethylamine	ND	0.077	0.43	0.43	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.077	0.43	0.43	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.060	0.43	0.43	mg/kg	1	
Pentachlorophenol	ND	0.14	0.43	0.43	mg/kg	1	
Phenanthrene	ND	0.068	0.43	0.43	mg/kg	1	
Phenol	ND	0.13	0.43	0.43	mg/kg	1	
Pyrene	ND	0.068	0.43	0.43	mg/kg	1	
Pyridine	ND	0.043	0.85	0.85	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*55 %*	Conc:*23.2*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*66 %*	Conc:*14.0*		*39-100*	%		
Surr: 2-Fluorophenol	*78 %*	Conc:*33.3*		*26-115*	%		
Surr: Nitrobenzene-d5	*69 %*	Conc:*14.6*		*49-105*	%		
Surr: Phenol-d5	*76 %*	Conc:*32.5*		*36-105*	%		
Surr: Terphenyl-d14	*76 %*	Conc:*16.3*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-09 **LN06241**

Sampled: 05/28/13 10:20 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 23:10 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.089	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.079	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.099	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.079	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.079	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.099	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.089	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.089	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.089	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.089	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.079	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.099	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.079	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	**0.12**	0.059	0.99	0.99	mg/kg	1	J
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-09 **LN06241**

Sampled: 05/28/13 10:20 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 23:10 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.089	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.49	0.49	mg/kg	1	
Carbazole	ND	0.089	0.49	0.49	mg/kg	1	
Chrysene	ND	0.089	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.99	0.99	mg/kg	1	
Dibenzofuran	ND	0.089	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.87	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.079	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.079	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.089	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	**0.17**	0.089	0.99	0.99	mg/kg	1	J
Isophorone	ND	0.099	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.089	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.089	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.079	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.079	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.99	0.99	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*52 %*	Conc:*25.5*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*62 %*	Conc:*15.3*		*39-100*	%		
Surr: 2-Fluorophenol	*74 %*	Conc:*36.3*		*26-115*	%		
Surr: Nitrobenzene-d5	*67 %*	Conc:*16.4*		*49-105*	%		
Surr: Phenol-d5	*71 %*	Conc:*35.2*		*36-105*	%		
Surr: Terphenyl-d14	*68 %*	Conc:*16.6*		*36-106*	%		

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800020

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-10 **LN06243**

Sampled: 05/28/13 10:24 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 23:40 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.080	0.45	0.45	mg/kg	1	
1,2-Dichlorobenzene	ND	0.098	0.45	0.45	mg/kg	1	
1,3-Dichlorobenzene	ND	0.071	0.45	0.45	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.45	0.45	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.098	0.45	0.45	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.098	0.45	0.45	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.45	0.45	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2,4-Dinitrophenol	ND	3.4	22	22	mg/kg	1	
2,4-Dinitrotoluene	ND	0.089	0.45	0.45	mg/kg	1	
2,6-Dinitrotoluene	ND	0.071	0.45	0.45	mg/kg	1	
2-Chloronaphthalene	ND	0.071	0.45	0.45	mg/kg	1	
2-Chlorophenol	ND	0.089	0.45	0.45	mg/kg	1	
2-Methylnaphthalene	ND	0.080	0.45	0.45	mg/kg	1	
2-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
2-Nitrophenol	ND	0.20	0.45	0.45	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.3	2.2	2.2	mg/kg	1	
3-Nitroaniline	ND	0.13	0.45	0.45	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.5	4.5	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.062	0.45	0.45	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.098	0.45	0.45	mg/kg	1	
4-Chloroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.080	0.45	0.45	mg/kg	1	
4-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Nitrophenol	ND	0.13	0.45	0.45	mg/kg	1	
Acenaphthene	ND	0.080	0.45	0.45	mg/kg	1	
Acenaphthylene	ND	0.080	0.45	0.45	mg/kg	1	
Aniline	ND	0.21	0.45	0.45	mg/kg	1	
Anthracene	ND	0.071	0.45	0.45	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.089	0.45	0.45	mg/kg	1	
Benzidine	ND	1.1	4.5	4.5	mg/kg	1	
Benzo (a) anthracene	ND	0.062	0.45	0.45	mg/kg	1	
Benzo (a) pyrene	ND	0.071	0.45	0.45	mg/kg	1	
Benzo (b) fluoranthene	ND	0.062	0.45	0.45	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.054	0.89	0.89	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.45	0.45	mg/kg	1	
Benzoic acid	ND	1.7	22	22	mg/kg	1	
Benzyl alcohol	ND	0.12	0.45	0.45	mg/kg	1	

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-10 **LN06243**

Sampled: 05/28/13 10:24 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/04/13 23:40 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.080	0.45	0.45	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.098	0.45	0.45	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.12	0.45	0.45	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.45	0.45	mg/kg	1	
Butyl benzyl phthalate	ND	0.13	0.45	0.45	mg/kg	1	
Carbazole	ND	0.080	0.45	0.45	mg/kg	1	
Chrysene	ND	0.080	0.45	0.45	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.045	0.89	0.89	mg/kg	1	
Dibenzofuran	ND	0.080	0.45	0.45	mg/kg	1	
Diethyl phthalate	ND	0.054	0.45	0.45	mg/kg	1	
Dimethyl phthalate	ND	0.79	2.2	2.2	mg/kg	1	
Di-n-butyl phthalate	ND	0.071	0.45	0.45	mg/kg	1	
Di-n-octyl phthalate	ND	0.12	0.45	0.45	mg/kg	1	
Fluoranthene	ND	0.098	0.45	0.45	mg/kg	1	
Fluorene	ND	0.062	0.45	0.45	mg/kg	1	
Hexachlorobenzene	ND	0.071	0.45	0.45	mg/kg	1	
Hexachlorobutadiene	ND	0.080	0.45	0.45	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.45	0.45	mg/kg	1	
Hexachloroethane	ND	0.062	0.45	0.45	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.080	0.89	0.89	mg/kg	1	
Isophorone	ND	0.089	0.45	0.45	mg/kg	1	
Naphthalene	ND	0.098	0.45	0.45	mg/kg	1	
Nitrobenzene	ND	0.098	0.45	0.45	mg/kg	1	
N-Nitrosodimethylamine	ND	0.080	0.45	0.45	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.080	0.45	0.45	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.062	0.45	0.45	mg/kg	1	
Pentachlorophenol	ND	0.14	0.45	0.45	mg/kg	1	
Phenanthrene	ND	0.071	0.45	0.45	mg/kg	1	
Phenol	ND	0.13	0.45	0.45	mg/kg	1	
Pyrene	ND	0.071	0.45	0.45	mg/kg	1	
Pyridine	ND	0.045	0.89	0.89	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*61 %*	Conc:*27.4*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*70 %*	Conc:*15.7*		*39-100*	%		
Surr: 2-Fluorophenol	*82 %*	Conc:*36.6*		*26-115*	%		
Surr: Nitrobenzene-d5	*74 %*	Conc:*16.5*		*49-105*	%		
Surr: Phenol-d5	*78 %*	Conc:*34.8*		*36-105*	%		
Surr: Terphenyl-d14	*79 %*	Conc:*17.6*		*36-106*	%		

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-11 LN06259

Sampled: 05/28/13 11:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 00:11 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.083	0.46	0.46	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.46	0.46	mg/kg	1	
1,3-Dichlorobenzene	ND	0.074	0.46	0.46	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.46	0.46	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.46	0.46	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.46	0.46	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.46	0.46	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.46	0.46	mg/kg	1	
2,4-Dinitrophenol	ND	3.5	23	23	mg/kg	1	
2,4-Dinitrotoluene	ND	0.092	0.46	0.46	mg/kg	1	
2,6-Dinitrotoluene	ND	0.074	0.46	0.46	mg/kg	1	
2-Chloronaphthalene	ND	0.074	0.46	0.46	mg/kg	1	
2-Chlorophenol	ND	0.092	0.46	0.46	mg/kg	1	
2-Methylnaphthalene	ND	0.083	0.46	0.46	mg/kg	1	
2-Methylphenol	ND	0.11	0.46	0.46	mg/kg	1	
2-Nitroaniline	ND	0.12	0.46	0.46	mg/kg	1	
2-Nitrophenol	ND	0.20	0.46	0.46	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.46	0.46	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.3	2.3	mg/kg	1	
3-Nitroaniline	ND	0.14	0.46	0.46	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.6	4.6	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.065	0.46	0.46	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.46	0.46	mg/kg	1	
4-Chloroaniline	ND	0.12	0.46	0.46	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.083	0.46	0.46	mg/kg	1	
4-Nitroaniline	ND	0.12	0.46	0.46	mg/kg	1	
4-Nitrophenol	ND	0.14	0.46	0.46	mg/kg	1	
Acenaphthene	ND	0.083	0.46	0.46	mg/kg	1	
Acenaphthylene	ND	0.083	0.46	0.46	mg/kg	1	
Aniline	ND	0.21	0.46	0.46	mg/kg	1	
Anthracene	ND	0.074	0.46	0.46	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.092	0.46	0.46	mg/kg	1	
Benzidine	ND	1.2	4.6	4.6	mg/kg	1	
Benzo (a) anthracene	ND	0.065	0.46	0.46	mg/kg	1	
Benzo (a) pyrene	ND	0.074	0.46	0.46	mg/kg	1	
Benzo (b) fluoranthene	ND	0.065	0.46	0.46	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.055	0.92	0.92	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.46	0.46	mg/kg	1	
Benzoic acid	ND	1.8	23	23	mg/kg	1	
Benzyl alcohol	ND	0.13	0.46	0.46	mg/kg	1	

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-11 **LN06259**

Sampled: 05/28/13 11:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 00:11 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.083	0.46	0.46	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.46	0.46	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.46	0.46	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.46	0.46	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.46	0.46	mg/kg	1	
Carbazole	ND	0.083	0.46	0.46	mg/kg	1	
Chrysene	ND	0.083	0.46	0.46	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.046	0.92	0.92	mg/kg	1	
Dibenzofuran	ND	0.083	0.46	0.46	mg/kg	1	
Diethyl phthalate	ND	0.055	0.46	0.46	mg/kg	1	
Dimethyl phthalate	ND	0.81	2.3	2.3	mg/kg	1	
Di-n-butyl phthalate	ND	0.074	0.46	0.46	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.46	0.46	mg/kg	1	
Fluoranthene	ND	0.10	0.46	0.46	mg/kg	1	
Fluorene	ND	0.065	0.46	0.46	mg/kg	1	
Hexachlorobenzene	ND	0.074	0.46	0.46	mg/kg	1	
Hexachlorobutadiene	ND	0.083	0.46	0.46	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.46	0.46	mg/kg	1	
Hexachloroethane	ND	0.065	0.46	0.46	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.083	0.92	0.92	mg/kg	1	
Isophorone	ND	0.092	0.46	0.46	mg/kg	1	
Naphthalene	ND	0.10	0.46	0.46	mg/kg	1	
Nitrobenzene	ND	0.10	0.46	0.46	mg/kg	1	
N-Nitrosodimethylamine	ND	0.083	0.46	0.46	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.083	0.46	0.46	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.065	0.46	0.46	mg/kg	1	
Pentachlorophenol	ND	0.15	0.46	0.46	mg/kg	1	
Phenanthrene	ND	0.074	0.46	0.46	mg/kg	1	
Phenol	ND	0.14	0.46	0.46	mg/kg	1	
Pyrene	ND	0.074	0.46	0.46	mg/kg	1	
Pyridine	ND	0.046	0.92	0.92	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*56 %*	Conc:*25.8*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*69 %*	Conc:*15.9*		*39-100*	%		
Surr: 2-Fluorophenol	*82 %*	Conc:*37.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*72 %*	Conc:*16.5*		*49-105*	%		
Surr: Phenol-d5	*77 %*	Conc:*35.4*		*36-105*	%		
Surr: Terphenyl-d14	*75 %*	Conc:*17.4*		*36-106*	%		

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800024

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-12 LN06261

Sampled: 05/28/13 11:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 00:41 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.085	0.47	0.47	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.47	0.47	mg/kg	1	
1,3-Dichlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.47	0.47	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.47	0.47	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.47	0.47	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	24	24	mg/kg	1	
2,4-Dinitrotoluene	ND	0.094	0.47	0.47	mg/kg	1	
2,6-Dinitrotoluene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chloronaphthalene	ND	0.075	0.47	0.47	mg/kg	1	
2-Chlorophenol	ND	0.094	0.47	0.47	mg/kg	1	
2-Methylnaphthalene	ND	0.085	0.47	0.47	mg/kg	1	
2-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
2-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
2-Nitrophenol	ND	0.21	0.47	0.47	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.47	0.47	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.4	2.4	mg/kg	1	
3-Nitroaniline	ND	0.14	0.47	0.47	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.7	4.7	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.066	0.47	0.47	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.47	0.47	mg/kg	1	
4-Chloroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.085	0.47	0.47	mg/kg	1	
4-Nitroaniline	ND	0.12	0.47	0.47	mg/kg	1	
4-Nitrophenol	ND	0.14	0.47	0.47	mg/kg	1	
Acenaphthene	ND	0.085	0.47	0.47	mg/kg	1	
Acenaphthylene	ND	0.085	0.47	0.47	mg/kg	1	
Aniline	ND	0.22	0.47	0.47	mg/kg	1	
Anthracene	ND	0.075	0.47	0.47	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.094	0.47	0.47	mg/kg	1	
Benzidine	ND	1.2	4.7	4.7	mg/kg	1	
Benzo (a) anthracene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (a) pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Benzo (b) fluoranthene	ND	0.066	0.47	0.47	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.057	0.94	0.94	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.47	0.47	mg/kg	1	
Benzoic acid	ND	1.8	24	24	mg/kg	1	
Benzyl alcohol	ND	0.13	0.47	0.47	mg/kg	1	

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-12 **LN06261**

Sampled: 05/28/13 11:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 00:41 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.085	0.47	0.47	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.47	0.47	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.47	0.47	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.47	0.47	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.47	0.47	mg/kg	1	
Carbazole	ND	0.085	0.47	0.47	mg/kg	1	
Chrysene	ND	0.085	0.47	0.47	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.047	0.94	0.94	mg/kg	1	
Dibenzofuran	ND	0.085	0.47	0.47	mg/kg	1	
Diethyl phthalate	ND	0.057	0.47	0.47	mg/kg	1	
Dimethyl phthalate	ND	0.83	2.4	2.4	mg/kg	1	
Di-n-butyl phthalate	ND	0.075	0.47	0.47	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.47	0.47	mg/kg	1	
Fluoranthene	ND	0.10	0.47	0.47	mg/kg	1	
Fluorene	ND	0.066	0.47	0.47	mg/kg	1	
Hexachlorobenzene	ND	0.075	0.47	0.47	mg/kg	1	
Hexachlorobutadiene	ND	0.085	0.47	0.47	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.47	0.47	mg/kg	1	
Hexachloroethane	ND	0.066	0.47	0.47	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.085	0.94	0.94	mg/kg	1	
Isophorone	ND	0.094	0.47	0.47	mg/kg	1	
Naphthalene	ND	0.10	0.47	0.47	mg/kg	1	
Nitrobenzene	ND	0.10	0.47	0.47	mg/kg	1	
N-Nitrosodimethylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.085	0.47	0.47	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.066	0.47	0.47	mg/kg	1	
Pentachlorophenol	ND	0.15	0.47	0.47	mg/kg	1	
Phenanthrene	ND	0.075	0.47	0.47	mg/kg	1	
Phenol	ND	0.14	0.47	0.47	mg/kg	1	
Pyrene	ND	0.075	0.47	0.47	mg/kg	1	
Pyridine	ND	0.047	0.94	0.94	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*55 %*	Conc:*26.1*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*67 %*	Conc:*15.7*		*39-100*	%		
Surr: 2-Fluorophenol	*78 %*	Conc:*36.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*70 %*	Conc:*16.6*		*49-105*	%		
Surr: Phenol-d5	*75 %*	Conc:*35.5*		*36-105*	%		
Surr: Terphenyl-d14	*76 %*	Conc:*18.0*		*36-106*	%		

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

QUALITY CONTROL SECTION

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3F0001-BLK1)				Analyzed: 06/04/13 14:03						
1,2,4-Trichlorobenzene	ND	0.050	mg/kg							
1,2-Dichlorobenzene	ND	0.050	mg/kg							
1,3-Dichlorobenzene	ND	0.050	mg/kg							
1,4-Dichlorobenzene	ND	0.050	mg/kg							
2,4,5-Trichlorophenol	ND	0.050	mg/kg							
2,4,6-Trichlorophenol	ND	0.050	mg/kg							
2,4-Dichlorophenol	ND	0.050	mg/kg							
2,4-Dimethylphenol	ND	0.050	mg/kg							
2,4-Dinitrophenol	ND	2.5	mg/kg							
2,4-Dinitrotoluene	ND	0.050	mg/kg							
2,6-Dinitrotoluene	ND	0.050	mg/kg							
2-Chloronaphthalene	ND	0.050	mg/kg							
2-Chlorophenol	ND	0.050	mg/kg							
2-Methylnaphthalene	ND	0.050	mg/kg							
2-Methylphenol	ND	0.050	mg/kg							
2-Nitroaniline	ND	0.050	mg/kg							
2-Nitrophenol	ND	0.050	mg/kg							
3 & 4-Methylphenol	ND	0.050	mg/kg							
3,3'-Dichlorobenzidine	ND	0.25	mg/kg							
3-Nitroaniline	ND	0.050	mg/kg							
4,6-Dinitro-2-methylphenol	ND	0.50	mg/kg							
4-Bromophenyl phenyl ether	ND	0.050	mg/kg							
4-Chloro-3-methylphenol	ND	0.050	mg/kg							
4-Chloroaniline	ND	0.050	mg/kg							
4-Chlorophenyl phenyl ether	ND	0.050	mg/kg							
4-Nitroaniline	ND	0.050	mg/kg							
4-Nitrophenol	ND	0.050	mg/kg							
Acenaphthene	ND	0.050	mg/kg							
Acenaphthylene	ND	0.050	mg/kg							
Aniline	ND	0.050	mg/kg							
Anthracene	ND	0.050	mg/kg							
Azobenzene/1,2-Diphenylhydrazine	ND	0.050	mg/kg							
Benzidine	ND	0.50	mg/kg							
Benzo (a) anthracene	ND	0.050	mg/kg							
Benzo (a) pyrene	ND	0.050	mg/kg							
Benzo (b) fluoranthene	ND	0.050	mg/kg							
Benzo (g,h,i) perylene	ND	0.10	mg/kg							
Benzo (k) fluoranthene	ND	0.050	mg/kg							
Benzoic acid	ND	2.5	mg/kg							
Benzyl alcohol	ND	0.050	mg/kg							
Bis(2-chloroethoxy)methane	ND	0.050	mg/kg							
Bis(2-chloroethyl)ether	ND	0.050	mg/kg							
Bis(2-chloroisopropyl)ether	ND	0.050	mg/kg							
Bis(2-ethylhexyl)phthalate	0.0305	0.050	mg/kg					NR		J

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3F0001-BLK1)				Analyzed: 06/04/13 14:03						
Butyl benzyl phthalate	ND	0.050	mg/kg							
Carbazole	ND	0.050	mg/kg							
Chrysene	ND	0.050	mg/kg							
Dibenzo (a,h) anthracene	ND	0.10	mg/kg							
Dibenzofuran	ND	0.050	mg/kg							
Diethyl phthalate	ND	0.050	mg/kg							
Dimethyl phthalate	ND	0.25	mg/kg							
Di-n-butyl phthalate	0.0315	0.050	mg/kg					NR		J
Di-n-octyl phthalate	ND	0.050	mg/kg							
Fluoranthene	ND	0.050	mg/kg							
Fluorene	ND	0.050	mg/kg							
Hexachlorobenzene	ND	0.050	mg/kg							
Hexachlorobutadiene	ND	0.050	mg/kg							
Hexachlorocyclopentadiene	ND	0.050	mg/kg							
Hexachloroethane	ND	0.050	mg/kg							
Indeno (1,2,3-cd) pyrene	ND	0.10	mg/kg							
Isophorone	ND	0.050	mg/kg							
Naphthalene	ND	0.050	mg/kg							
Nitrobenzene	ND	0.050	mg/kg							
N-Nitrosodimethylamine	ND	0.050	mg/kg							
N-Nitrosodi-n-propylamine	ND	0.050	mg/kg							
N-Nitrosodiphenylamine	ND	0.050	mg/kg							
Pentachlorophenol	ND	0.050	mg/kg							
Phenanthrene	ND	0.050	mg/kg							
Phenol	ND	0.050	mg/kg							
Pyrene	ND	0.050	mg/kg							
Pyridine	ND	0.10	mg/kg							
Surr: 2,4,6-Tribromophenol	*4.31*		*mg/kg*	*5.00*		*86*	*40-97*			
Surr: 2-Fluorobiphenyl	*2.47*		*mg/kg*	*2.50*		*99*	*39-100*			
Surr: 2-Fluorophenol	*7.19*		*mg/kg*	*5.00*		*144*	*26-115*			*S-11*
Surr: Nitrobenzene-d5	*2.55*		*mg/kg*	*2.50*		*102*	*49-105*			
Surr: Phenol-d5	*5.47*		*mg/kg*	*5.00*		*109*	*36-105*			*S-11*
Surr: Terphenyl-d14	*2.80*		*mg/kg*	*2.50*		*112*	*36-106*			*S-11*
LCS (W3F0001-BS1)				Analyzed: 06/04/13 14:33						
1,2,4-Trichlorobenzene	1.94	0.050	mg/kg	2.50		78	28-120	NR		
1,4-Dichlorobenzene	1.98	0.050	mg/kg	2.50		79	41-98	NR		
2,4-Dinitrotoluene	2.07	0.050	mg/kg	2.50		83	43-121	NR		
2-Chlorophenol	1.96	0.050	mg/kg	2.50		78	22-123	NR		
4-Chloro-3-methylphenol	1.88	0.050	mg/kg	2.50		75	26-126	NR		
4-Nitrophenol	1.81	0.050	mg/kg	2.50		72	17-139	NR		
Acenaphthene	2.07	0.050	mg/kg	2.50		83	44-105	NR		
N-Nitrosodi-n-propylamine	2.00	0.050	mg/kg	2.50		80	24-128	NR		
Pentachlorophenol	1.80	0.050	mg/kg	2.50		72	20-116	NR		

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3F0001-BS1)				Analyzed: 06/04/13 14:33						
Phenol	1.82	0.050	mg/kg	2.50		73	22-123	NR		
Pyrene	2.13	0.050	mg/kg	2.50		85	42-118	NR		
Surr: 2,4,6-Tribromophenol	*3.91*		*mg/kg*	*5.00*		*78*	*40-97*			
Surr: 2-Fluorobiphenyl	*2.15*		*mg/kg*	*2.50*		*86*	*39-100*			
Surr: 2-Fluorophenol	*4.65*		*mg/kg*	*5.00*		*93*	*26-115*			
Surr: Nitrobenzene-d5	*1.99*		*mg/kg*	*2.50*		*80*	*49-105*			
Surr: Phenol-d5	*4.22*		*mg/kg*	*5.00*		*84*	*36-105*			
Surr: Terphenyl-d14	*2.35*		*mg/kg*	*2.50*		*94*	*36-106*			
Matrix Spike (W3F0001-MS1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:03						
1,2,4-Trichlorobenzene	16.2	0.49	mg/kg	24.4	ND	66	26-124	NR		
1,4-Dichlorobenzene	16.9	0.49	mg/kg	24.4	ND	69	28-117	NR		
2,4-Dinitrotoluene	19.2	0.49	mg/kg	24.4	ND	79	26-132	NR		
2-Chlorophenol	16.4	0.49	mg/kg	24.4	ND	67	24-124	NR		
4-Chloro-3-methylphenol	15.9	0.49	mg/kg	24.4	ND	65	5-153	NR		
4-Nitrophenol	17.6	0.49	mg/kg	24.4	ND	72	0.6-139	NR		
Acenaphthene	17.6	0.49	mg/kg	24.4	ND	72	33-117	NR		
N-Nitrosodi-n-propylamine	16.5	0.49	mg/kg	24.4	ND	68	20-128	NR		
Pentachlorophenol	16.9	0.49	mg/kg	24.4	0.394	68	7-125	NR		
Phenol	15.8	0.49	mg/kg	24.4	ND	65	40-120	NR		
Pyrene	20.1	0.49	mg/kg	24.4	ND	83	22-148	NR		
Surr: 2,4,6-Tribromophenol	*34.6*		*mg/kg*	*48.8*		*71*	*40-97*			
Surr: 2-Fluorobiphenyl	*17.3*		*mg/kg*	*24.4*		*71*	*39-100*			
Surr: 2-Fluorophenol	*35.6*		*mg/kg*	*48.8*		*73*	*26-115*			
Surr: Nitrobenzene-d5	*16.1*		*mg/kg*	*24.4*		*66*	*49-105*			
Surr: Phenol-d5	*34.3*		*mg/kg*	*48.8*		*70*	*36-105*			
Surr: Terphenyl-d14	*21.4*		*mg/kg*	*24.4*		*88*	*36-106*			
Matrix Spike Dup (W3F0001-MSD1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:33						
1,2,4-Trichlorobenzene	14.9	0.48	mg/kg	23.9	ND	62	26-124	8	30	
1,4-Dichlorobenzene	15.5	0.48	mg/kg	23.9	ND	65	28-117	9	30	
2,4-Dinitrotoluene	15.8	0.48	mg/kg	23.9	ND	66	26-132	19	30	
2-Chlorophenol	15.3	0.48	mg/kg	23.9	ND	64	24-124	7	30	
4-Chloro-3-methylphenol	14.4	0.48	mg/kg	23.9	ND	60	5-153	10	30	
4-Nitrophenol	13.6	0.48	mg/kg	23.9	ND	57	0.6-139	25	30	
Acenaphthene	16.0	0.48	mg/kg	23.9	ND	67	33-117	10	30	
N-Nitrosodi-n-propylamine	14.2	0.48	mg/kg	23.9	ND	59	20-128	15	30	
Pentachlorophenol	12.3	0.48	mg/kg	23.9	0.394	50	7-125	31	30	MS-05
Phenol	14.5	0.48	mg/kg	23.9	ND	61	40-120	9	30	
Pyrene	15.6	0.48	mg/kg	23.9	ND	65	22-148	25	30	
Surr: 2,4,6-Tribromophenol	*27.8*		*mg/kg*	*47.8*		*58*	*40-97*			
Surr: 2-Fluorobiphenyl	*14.9*		*mg/kg*	*23.9*		*62*	*39-100*			
Surr: 2-Fluorophenol	*31.0*		*mg/kg*	*47.8*		*65*	*26-115*			
Surr: Nitrobenzene-d5	*14.6*		*mg/kg*	*23.9*		*61*	*49-105*			
Surr: Phenol-d5	*30.1*		*mg/kg*	*47.8*		*63*	*36-105*			

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W3F0001-MSD1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:33						
Surr: Terphenyl-d14	*15.7*		*mg/kg*	*23.9*		*66*	*36-106*			

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Notes and Definitions

S-11	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit
NR	Not Reportable

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

DEPARTMENT OF WATER & POWER
OF THE CITY OF LOS ANGELES
Power System
Integrated Support Services

ENVIRONMENTAL LABORATORY DATA REPORT

CLIENT: **GEORGE FAEUSTLE**

PROJECT: **7600 TYRONE AVE**

REPORT NO.: **C12055 (Revised and Updated)**

TABLE OF CONTENTS

DEPARTMENT OF WATER & POWER
OF THE CITY OF LOS ANGELES
Power System
Integrated Support Services

Report No. C12055
COC 13-1326
Page 1 of 1 w/ attachments
Updated and Revised

ENVIRONMENTAL LABORATORY DATA REPORT

7600 TYRONE AVE, VAN NUYS
Soil Samples

Soil samples from 7600 Tyrone Ave, Van Nuys, were submitted to the Environmental Laboratory on May 29, 2013 for the determination of their Volatile Organic Compounds (VOC), Metals, Semi-Volatile Organic Compounds (SVOC), Total Extractable Petroleum Hydrocarbons (TEPH) including Motor Oil (MO) and Diesel Range Organic (DRO), Chlorinated Pesticides, Polychlorinated Biphenyls (PCBs), and Gasoline Range Organics (GRO) content.

Testing information including tests requested and test methods are listed below. All quality assurance data indicate that the results for these samples are of acceptable quality.

Analysis Requested	Method	Results	Analyzed by
VOC	EPA 8260 B	**Attachment #1**	Environmental Lab
Metals	EPA 6010B/7471	**Attachment #2**	Environmental Lab
TEPH/Diesel/Motor Oil	EPA 8015M	**Attachment #3**	Environmental Lab
GRO	EPA 8015B	**Attachment #4**	Environmental Lab
PCB	EPA 8082	**Attachment #5**	Weck Laboratories
Pesticides	EPA 8081A	**Attachment #6**	Weck Laboratories
SVOC	EPA 8270 C	**Attachment #7**	Weck Laboratories

This report has been updated to include Pesticide Analyses (EPA 8081A- Attachment #6). The report was also revised as the MDL for Mercury Analysis in the original report was listed in parts per billion (ug/kg) instead of parts per million (mg/kg).

Additionally, please not that VOC analyses in Attachment #1 include results for this project from COC-1321 as well.

If you have any questions, or if further information is required, please contact Mr. Jeremy Stoa at (213) 367-7266 or Mr. Kevin Han at (213) 367-7267.

Date Completed: 6/6/2013
Work Order No.: AHJ17
Job Card No.: J95550
Copies to: G. Faeustle
N. Liu
K. Han
J. Stoa
FileNet

Test Performed by: Environmental Lab
Weck Laboratories
Report By: JS/LK Date: 6/14/13
Checked by: JMC Date: 6/14/13

APPROVED BY: Kevin Han 6/14/13
Kevin Han Date
Interim Laboratory Manager
Environmental Laboratory

Environme l Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Pc r
City of Los Angeles

Chain of Custody Record

COC #: 13-1326 Page 1 of 2

Report C# 12055 JC# 95550 WO# 4HV17
Refrig#. R154 Shelf _____ Bin#_____
Initial of Field Personnel: [illegible] No. of Field Test: _____

Sample Location: Tyrone Property, 7600 Tyrone Ave, Van Nuys, CA

Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use .1 or .X)	Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1 B12-1' LN06314	5/28/13	1300									
2 -2' 06315		1302	ARCHIVE/HOLD	ICE	5	SLEEVE		SOIL	Pb (6010B)		
3 -3' 06316		1304							(ARCHIVE)		
4 B17-1' 06317		1306									
5 -2' 06318		1308	ARCHIVE/HOLD						As (6010B)		
6 -3' 06319		1310							(ARCHIVE)		
7 B13-1' 06320	5/29/13	0745									
8 -2' 06321		0747	ARCHIVE/HOLD **RUSH**		3	SLEEVE			CCRs (8081A)/As (6010B)		
9 -3' 06322		0749							(ARCHIVE)		
10 B15-1' 06323		0800									
11 -2' 06324		0802	ARCHIVE/HOLD								
12 -3' 06325		0804							(ARCHIVE)		
13 B16-1 06326		0810									
14 -2 06327		0812	ARCHIVE/HOLD								
15 -3 06328		0814							(ARCHIVE)		
16 B23-1 06329		0830		5035/ICE	5	SLEEVE			TitleXXMetals (6010B/7471A) / TPHcc (8015M) / SVOCs (8270C) / PCBs (8082)		

2000

Date & Time Stamp
LADWP
2013 MAY 29 AM 10:
RECD BY: ENV. CHEM LAB
Chem Lab COC Form #1
Revision: 08/01/02

Requester George Fauver/K. Drake Organization/Div. LADWP/Alta Environ.
Address _____ Tel. _____ Fax _____

Analyst: _____ Date _____
Approved: _____ Date _____

Priority
2-4 Hrs
1Day
2 Wks
4Wks
Specify
STANDARD

Printed Name	Signature	Time	Date
Sampled by: K. Drake (Alta Environmental)	Sampled by: [signature]	1000	5/21/13
Relinquished by: K. Drake	Relinquished by: [signature]	1030	5/29/13
Received by T NGUYEN	Received by [signature]	1040	5/29/13

COC13-1326

BE YC TY BT TS DW

LK RG KH

* Please archive/Hold all 2' samples pending the 1'+3' results
* Do NOT analyze 2' samples

Environme l Laboratory
1630 N. Main Street, Bldg. 7, 3rd Flr.
Los Angeles, CA. 90012
(213) 367-7248/7399
(213) 367-7285 FAX

Department of Water and Po er
City of Los Angeles

Chain of Custody Record

COC #: 13-1326

Report C#____ JC#____ WO#____
Refrig#.____ Shelf____ Bin#.____
Initial of Field Personnel: [initials]
No. of Field Test:

Sample Location: TYRONE PROPERTY

#	Chem Lab use only CHEMISTRY LOG NUMBERS (For sample duplicates use 1 or X)		Sample Date	(24 Hr) Sample Time	Sample Location and Description	Preservatives	Container No.	Container Type	Container Size	Sample Matrix	Analysis Required	Test Result	Analyst(s) Assigned
1	B23-1'	LN06330	5/29/13	0832	ARCHIVE/HOLD								
2	-3'	06331	↓	0834		5035/ICE	5	SLEEVE/ENCORE		SOIL	(ARCHIVE) (6010B) (8015M) (8270C) (8082) Title22 Metals/TPHcc/SVOCs/PCBs		
3	B14-1'	06332		0840		↓	↓			↓			
4	-2'	06333		0842	ARCHIVE/HOLD	ICE	3	SLEEVE		SOIL	OCPs (8081A) + As (6010B)		
5	-3'	06334		0844							(ARCHIVE)		
6	B27-1	06335		0900			↓	↓	↓		↓		
7	-2	06336		0902	ARCHIVE/HOLD	5035/ICE	7				(6010B) Metals-T22/TPHcc/VOCs/SVOCs/PCBs (8082)		
8	-3	06337		0904							(ARCHIVE)		
9	B24-1	06338		0906		↓	↓	↓	↓		↓		
10	-2	06339		0908	ARCHIVE/HOLD		5				T22 Metals/TPHcc/SVOCs		
11	-3	06340		0910							(ARCHIVE)		
12	B28-1	06341		0930			↓	↓	↓		↓		
13	-2	06342		0932	ARCHIVE/HOLD		7				T22 Metals/TPHcc/VOCs/SVOCs/PCB (8081A)/OCPs		
14	-3	06343	↓	0934		↓	↓	↓	↓	↓	(ARCHIVE)		
15													
16													

Date & Time Stamp
LADWP 2013 MAY 29 PM 1:41 RECD BY: ENV. CHEM LAB

<< COC# Label Here >>

Chem Lab COC Form #1
Revision: 08/01/02

Requester: G. FEDUSTLE/K. DRAKE
Address____ Tel.____
Organization/Div. LADWP/Alta Environ.
Fax____

Analyst:____ Date____
Approved:____ Date____

Priority
- 2-4 Hrs
- 1Day
- 2 Wks
- 4Wks
- Specify: STANDARD

	Printed Name	Signature	Time	Date
Sampled by:	K. DRAKE (ALTA)	[signature]	1000	5/29/13
Relinquished by:	K. DRAKE (ALTA)	[signature]	1030	5/29/13
Received by	T NGUYEN	[signature]	1040	5/29/13

DO NOT ANALYZE 2' SAMPLES — PLEASE ARCHIVE/HOLD PENDING ANALYSIS OF 1' + 3' SAMPLES.

ATTACHMENT #1

VOLATILE ORGANIC COMPOUNDS
(VOC)

EPA METHOD 8260 B

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

Sample Matrix: Soil

PROJECT: 7600 TYRONE

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06217	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-3
LN06335	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-1
LN06337	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-3
LN06341	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-1

Compounds	MDL ug/kg	PQL ug/kg	LN06217 Amount ug/kg	LN06219 Amount ug/kg	LN06229 Amount ug/kg	LN06231 Amount ug/kg	LN06335 Amount ug/kg	LN06337 Amount ug/kg	LN06341 Amount ug/kg
Acetone	32	160.0	nd	nd	nd	nd	nd	nd	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Benzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromobenzene	26	130.0	nd	nd	nd	nd	nd	nd	nd
Bromochloromethane	24	120.0	nd	nd	nd	nd	nd	nd	nd
Bromodichloromethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
Bromoform	23	115.0	nd	nd	nd	nd	nd	nd	nd
Bromomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
Methyl ethyl ketone (MEK)	26	130.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd	nd	nd	nd	nd	nd	nd
Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
sec-Butylbenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
tert-Butylbenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd	nd	nd	nd	nd	nd	nd
Carbon disulfide	116	580.0	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	32	160.0	nd	nd	nd	nd	nd	nd	nd
Chlorobenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Chloroethane	42	210.0	nd	nd	nd	nd	nd	nd	nd
2-Chloroethyl vinyl ether	23	115.0	nd	nd	nd	nd	nd	nd	nd
Chloroform	30	150.0	nd	nd	nd	nd	nd	nd	nd
Chloromethane	70	350.0	nd	nd	nd	nd	nd	nd	nd
2-Chlorotoluene	27	135.0	nd	nd	nd	nd	nd	nd	nd
4-Chlorotoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Dibromochloromethane	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Dibromomethane	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	27	135.0	nd	nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
Dichlorodifluoromethane	37	185.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	29	145.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	28	140.0	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	32	160.0	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,3-Dichloropropane	21	105.0	nd	nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	38	190.0	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloropropene	27	135.0	nd	nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	26	130.0	nd	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	29	145.0	nd	nd	nd	nd	nd	nd	nd
Diisopropyl ether (DIPE)	26	130.0	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Hexachlorobutadiene	44	220.0	nd	nd	nd	nd	nd	nd	nd

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06217	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-1
LN06219	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B25-3
LN06229	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-1
LN06231	5/28/2013	5/28/2013	6/3/2013	7600 TYRONE, B26-3
LN06335	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-1
LN06337	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B27-3
LN06341	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-1

Compounds	MDL ug/kg	PQL ug/kg	LN06217 Amount ug/kg	LN06219 Amount ug/kg	LN06229 Amount ug/kg	LN06231 Amount ug/kg	LN06335 Amount ug/kg	LN06337 Amount ug/kg	LN06341 Amount ug/kg
2-Hexanone	21	105.0	nd	nd	nd	nd	nd	nd	nd
Isopropylbenzene	33	165.0	nd	nd	nd	nd	nd	nd	nd
p-Isopropyltoluene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd	nd	nd	nd	nd	nd	nd
Methylene chloride	31	155.0	nd	nd	nd	nd	nd	nd	nd
Iodomethane	20	100.0	nd	nd	nd	nd	nd	nd	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd	nd	nd	nd	nd	nd	nd
Naphthalene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Propylbenzene	30	150.0	nd	nd	nd	nd	nd	nd	nd
Styrene	33	165.0	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethylene	27	135.0	nd	nd	nd	nd	nd	nd	nd
Toluene	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene	29	145.0	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	31	155.0	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	26	130.0	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	23	115.0	nd	nd	nd	nd	nd	nd	nd
Trichloroethylene	24	120.0	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	35	175.0	nd	nd	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	22	110.0	nd	nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	25	125.0	nd	nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	28	140.0	nd	nd	nd	nd	nd	nd	nd
Vinyl acetate	52	260.0	nd	nd	nd	nd	nd	nd	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd	nd	nd	nd	nd	nd	nd
m & p-Xylene	75	375.0	nd	nd	nd	nd	nd	nd	nd
o-Xylene	28	140.0	nd	nd	nd	nd	nd	nd	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper							
SURR: Bromofluorobenzene	74 - 121	104.0%	103.7%	102.7%	103.3%	102.3%	103.3%	102.7%
SURR: Dibromofluoromethane	80 - 120	97.0%	96.0%	95.0%	96.3%	95.3%	95.3%	95.3%
SURR: Toluene-d8	81 - 117	93.7%	92.3%	90.0%	92.3%	92.3%	92.3%	92.3%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06343	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-3

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN06343 Amount (ug/kg)
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
2-Butanone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
n-Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane (EDB)	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd
Hexachlorobutadiene	44	220.0	nd

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1321
COC 13-1326

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
LN06343	5/29/2013	5/29/2013	6/3/2013	7600 TYRONE, B28-3

Compounds	MDL (ug/kg)	PQL (ug/kg)	LN06343 Amount (ug/kg)
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
Methyl iodide (Iodomethane)	20	100.0	nd
4-Methyl-2-pentanone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene (Phenylethylene)	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene (PCE)	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene (TCE)	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	
SURR: Bromofluorobenzene	74 - 121	103.7%
SURR: Dibromofluoromethane	80 - 120	95.0%
SURR: Toluene-d8	81 - 117	92.7%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

COC 13-1321

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE

Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/28/2013	5/28/2013	6/3/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Acetone	32	160.0	nd
tert-Amyl methyl ether (TAME)	23	115.0	nd
Benzene	26	130.0	nd
Bromobenzene	26	130.0	nd
Bromochloromethane	24	120.0	nd
Bromodichloromethane	22	110.0	nd
Bromoform	23	115.0	nd
Bromomethane	20	100.0	nd
Methyl ethyl ketone (MEK)	26	130.0	nd
tert-Butyl alcohol (TBA)	373	1865.0	nd
Butylbenzene	29	145.0	nd
sec-Butylbenzene	27	135.0	nd
tert-Butylbenzene	29	145.0	nd
tert-Butyl ethyl ether (ETBE)	20	100.0	nd
Carbon disulfide	116	580.0	nd
Carbon Tetrachloride	32	160.0	nd
Chlorobenzene	28	140.0	nd
Chloroethane	42	210.0	nd
2-Chloroethyl vinyl ether	23	115.0	nd
Chloroform	30	150.0	nd
Chloromethane	70	350.0	nd
2-Chlorotoluene	27	135.0	nd
4-Chlorotoluene	28	140.0	nd
Dibromochloromethane	25	125.0	nd
1,2-Dibromo-3-chloropropane	31	155.0	nd
1,2-Dibromoethane	23	115.0	nd
Dibromomethane	33	165.0	nd
1,2-Dichlorobenzene	27	135.0	nd
1,3-Dichlorobenzene	27	135.0	nd
1,4-Dichlorobenzene	33	165.0	nd
Dichlorodifluoromethane	37	185.0	nd
1,1-Dichloroethane	29	145.0	nd
1,2-Dichloroethane	22	110.0	nd
1,1-Dichloroethene	28	140.0	nd
cis-1,2-Dichloroethene	26	130.0	nd
trans-1,2-Dichloroethene	32	160.0	nd
1,2-Dichloropropane	22	110.0	nd
1,3-Dichloropropane	21	105.0	nd
2,2-Dichloropropane	38	190.0	nd
1,1-Dichloropropene	27	135.0	nd
cis-1,3-Dichloropropene	26	130.0	nd
trans-1,3-Dichloropropene	29	145.0	nd
Diisopropyl ether (DIPE)	26	130.0	nd
Ethylbenzene	30	150.0	nd

COC 13-1321

ENVIRONMENTAL LABORATORY DATA REPORT

Report of GC/MS Analysis for Purgeable Volatile Organics
EPA SW-846 Method 8260

PROJECT: 7600 TYRONE Sample Matrix: Soil

Chemistry Log No.	Date Sampled	Date Received	Date Analyzed	Sample Description
Blank	5/28/2013	5/28/2013	6/3/2013	Method Blank

Compounds	MDL ug/kg	PQL ug/kg	Blank Amount ug/kg
Hexachlorobutadiene	44	220.0	nd
2-Hexanone	21	105.0	nd
Isopropylbenzene	33	165.0	nd
p-Isopropyltoluene	28	140.0	nd
Methyl-t-butyl ether (MTBE)	23	115.0	nd
Methylene chloride	31	155.0	nd
Iodomethane	20	100.0	nd
Methyl isobutyl ketone (MIBK)	19	95.0	nd
Naphthalene	30	150.0	nd
Propylbenzene	30	150.0	nd
Styrene	33	165.0	nd
1,1,1,2-Tetrachloroethane	23	115.0	nd
1,1,2,2-Tetrachloroethane	40	200.0	nd
Tetrachloroethylene	27	135.0	nd
Toluene	25	125.0	nd
1,2,3-Trichlorobenzene	29	145.0	nd
1,2,4-Trichlorobenzene	31	155.0	nd
1,1,1-Trichloroethane	26	130.0	nd
1,1,2-Trichloroethane	23	115.0	nd
Trichloroethylene	24	120.0	nd
Trichlorofluoromethane	35	175.0	nd
1,2,3-Trichloropropane	22	110.0	nd
1,2,4-Trimethylbenzene	25	125.0	nd
1,3,5-Trimethylbenzene	28	140.0	nd
Vinyl acetate	52	260.0	nd
Vinyl Chloride (Chloroethene)	36	180.0	nd
m & p-Xylene	75	375.0	nd
o-Xylene	28	140.0	nd

MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5xMDL)

J - Concentration above MDL below PQL
nd - Not Detected; below detection limit

Quality Control Data

Surrogates 30 (ug/L each)	QC Limits % Recovery Lower-Upper	
SURR: Bromofluorobenzene	74 - 121	102.0%
SURR: Dibromofluoromethane	80 - 120	96.7%
SURR: Toluene-d8	81 - 117	92.7%

Comment:

Analyst: Bryan Tiu

Reviewed by: Rose Gentallan

200006

Project No: 7600 TYRONE

(RWQCB LabForm10A;Ver12/94)

Quality Assurance Report

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE PERFORMED: 6/3/13 ANALYTICAL METHOD: USEPA 8260

BATCH #: LN06217 LN LN06217 LN06219 LN06229 LN06231 LN06335 LN06337 LN06341 LN06343

LAB SAMPLE I.D.: LN06217 UNIT: ug/kg

ANALYTE	SAMPLE RESULT	SPIKE CONC	MS	%MS	SPIKE CONC (DUP)	MSD	%MSD	RPD	MS/MSD LIMIT	RPD LIMIT
1,1-Dichloroethene	ND	30.0	25.3	84.3	30.0	25.9	86.3	2.3 %	59-172	22%
Benzene	ND	30.0	29.9	99.7	30.0	30.5	102	2.3 %	66-142	21%
Trichloroethylene	ND	30.0	30.8	103	30.0	31.3	104	0.97 %	62-137	24%
Toluene	ND	30.0	30.6	102	30.0	31.5	105	2.9 %	59-139	21%
Chlorobenzene	ND	30.0	35.7	119	30.0	36.6	122	2.5 %	60-133	21%

Laboratory Quality Control Check Sample (LCS)

DATE PERFORMED: 6/3/13 ANALYTICAL METHOD: USEPA 8260

SUPPLY SOURCE: LAB LCS I.D.: Q8087

LOT NUMBER: UNIT: ug/kg

DATE OF SOURCE:

ANALYTE	LCS RESULT ug/kg	TRUE VALUE ug/kg	% RECOVERY	Advisory Range
1,1,2-Trichloroethane	29.9	30	99.7	70 - 130
1,2-Dichloroethane	32.1	30	107.0	70 - 130
1,4-Dichlorobenzene	31.3	30	104.3	70 - 130
Benzene	28.9	30	96.3	70 - 130
Bromoform	33	30	110.0	70 - 130
Carbon Tetrachloride	27	30	90.0	70 - 130
Tetrachloroethylene	28.2	30	94.0	70 - 130
Trichloroethylene	27.2	30	90.7	70 - 130

Analyst: B. Tiu

Reviewed by: R. Gentallen

200007

ATTACHMENT #2

METALS/MERCURY

EPA METHOD 6010B/7471

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06329	5/29/13	5/29/13	6/5/13	7600 TYRONE, B23-1
LN06331	5/29/13	5/29/13	6/5/13	7600 TYRONE, B23-3
LN06335	5/29/13	5/29/13	6/5/13	7600 TYRONE, B27-1
LN06337	5/29/13	5/29/13	6/5/13	7600 TYRONE, B27-3
LN06338	5/29/13	5/29/13	6/5/13	7600 TYRONE, B24-1
LN06340	5/29/13	5/29/13	6/5/13	7600 TYRONE, B24-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06329 mg/kg	LN06331 mg/kg	LN06335 mg/kg	LN06337 mg/kg	LN06338 mg/kg	LN06340 mg/kg
Antimony	500	15	6010B	1.0	5.0	1	3.3J	4.0J	2.7J	3.8J	3.3J	4.2J
Arsenic	500	5	6010B	2.6	13.0	1	ND	ND	ND	ND	ND	ND
Barium	10000	100	6010B	3.7	18.5	1	218	300	190	256	205	296
Beryllium	75	0.75	6010B	0.7	3.50	1	ND	ND	ND	ND	ND	ND
Cadmium	100	1	6010B	0.6	3.0	1	3.3	4.0	3.1	3.6	3.2	4.1
Chromium (T)	500	5	6010B	1.4	7.0	1	20	23	18	23	19	23
Cobalt	8000	80	6010B	1.0	5.0	1	15	20	14	18	16	21
Copper	2500	25	6010B	1.6	8.0	1	21	22	14	20	18	22
Lead	1000	5	6010B	0.9	4.5	1	39	15	12	14	42	15
Molybdenum	3500	350	6010B	0.3	1.5	1	ND	ND	0.5J	ND	ND	ND
Nickel	2000	20	6010B	0.6	3.0	1	20	24	20	23	20	24
Selenium	100	1	6010B	1.6	8.0	1	ND	ND	ND	ND	ND	ND
Silver	500	5	6010B	1.5	7.5	1	ND	ND	ND	ND	ND	ND
Thallium	700	7	6010B	1.0	5.0	1	ND	ND	ND	ND	ND	ND
Vanadium	2400	24	6010B	1.8	9.00	1	31	38	30	35	30	37
Zinc	5000	250	6010B	1.9	9.50	1	124	79	59	74	93	78
Mercury	20	0.2	7471	0.00002	0.0001	1	0.0480	0.0210	0.0200	0.0200	0.0240	0.0230

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: KC/YC

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06341	5/29/13	5/29/13	6/5/13	7600 TYRONE, B28-1
LN06343	5/29/13	5/29/13	6/5/13	7600 TYRONE, B28-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06341 mg/kg	LN06343 mg/kg
Antimony	500	15	6010B	1.0	5.0	1	2.0J	4.0J
Arsenic	500	5	6010B	2.6	13.0	1	ND	ND
Barium	10000	100	6010B	3.7	18.5	1	99	263
Beryllium	75	0.75	6010B	0.7	3.50	1	ND	ND
Cadmium	100	1	6010B	0.6	3.0	1	1.8J	3.7
Chromium (T)	500	5	6010B	1.4	7.0	1	10	22
Cobalt	8000	80	6010B	1.0	5.0	1	7.8	19
Copper	2500	25	6010B	1.6	8.0	1	7.7J	21
Lead	1000	5	6010B	0.9	4.5	1	6.7	18
Molybdenum	3500	350	6010B	0.3	1.5	1	0.44J	ND
Nickel	2000	20	6010B	0.6	3.0	1	12.3	22
Selenium	100	1	6010B	1.6	8.0	1	ND	ND
Silver	500	5	6010B	1.5	7.5	1	ND	ND
Thallium	700	7	6010B	1.0	5.0	1	ND	ND
Vanadium	2400	24	6010B	1.8	9.0	1	19	35
Zinc	5000	250	6010B	1.9	9.5	1	36	78
Mercury	20	0.2	7471	0.00002	0.0001	1	0.0093	0.0190

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: KC/YC

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06337 Dup	05/29/13	5/29/13	6/5/13	7600 TYRONE, B27-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	Dup LN06337 (mg/kg)
Antimony	500	15	6010B	1.0	5.0	1	3.8J
Arsenic	500	5	6010B	2.6	13.0	1	ND
Barium	10000	100	6010B	3.7	18.5	1	249
Beryllium	75	0.75	6010B	0.7	3.50	1	ND
Cadmium	100	1	6010B	0.6	3.0	1	3.5
Chromium (T)	2500	5	6010B	1.4	7.0	1	21
Cobalt	8000	80	6010B	1.0	5.0	1	17
Copper	2500	25	6010B	1.6	8.0	1	19
Lead	1000	5	6010B	0.9	4.5	1	14
Molybdenum	3500	350	6010B	0.3	1.5	1	ND
Nickel	2000	20	6010B	0.6	3.0	1	22
Selenium	100	1	6010B	1.6	8.0	1	ND
Silver	500	5	6010B	1.5	7.5	1	ND
Thallium	700	7	6010B	1.0	5.0	1	ND
Vanadium	2400	24	6010B	1.8	9.0	1	34
Zinc	5000	250	6010B	1.9	9.5	1	71

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
R.L. - Report Limit
D. F. - Dilution Factor

** - exceed TTLC limit
* - exceed 10x STLC limit
J - concentration above MDL and below RL

Analyst: KC

ENVIRONMENTAL LABORATORY DATA REPORT

COC 13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA Method 6010B

Sample Matrix: SOIL

PROJECT: 7600 TYRONE

LABORATORY	DATE	DATE	DATE									
LOG NO.	SAMPLED	RECEIVED	ANALYZED				SAMPLE DESCRIPTION					
LN06317	5/29/13	5/29/13	6/4/13			7600 TYRONE, B17-1						
LN06319	5/30/13	5/30/13	6/4/13			7600 TYRONE, B17-3						
LN06320	5/31/13	5/31/13	6/4/13			7600 TYRONE, B13-1						
LN06322	6/1/13	6/1/13	6/4/13			7600 TYRONE, B13-3						
LN06323	6/2/13	6/2/13	6/4/13			7600 TYRONE, B15-1						
LN06325	6/2/13	6/2/13	6/4/13			7600 TYRONE, B15-3						
	LIMIT	LIMIT										
	TTLC	STLC					LN06317	LN06319	LN06320	LN06322	LN06323	LN06325
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Arsenic	500	5	6010B	2.6	13.0	100	ND	ND	ND	ND	ND	ND

LABORATORY	DATE	DATE	DATE									
LOG NO.	SAMPLED	RECEIVED	ANALYZED				SAMPLE DESCRIPTION					
LN06326	5/29/13	5/29/13	6/4/13			7600 TYRONE, B16-1						
LN06328	5/30/13	5/30/13	6/4/13			7600 TYRONE, B16-3						
LN06332	5/31/13	5/31/13	6/4/13			7600 TYRONE, B14-1						
LN06334	6/1/13	6/1/13	6/4/13			7600 TYRONE, B14-3						
	LIMIT	LIMIT										
	TTLC	STLC					LN06326	LN06328	LN06332	LN06334		
METAL	(mg/kg)	(mg/l)	METHOD	MDL	RL	D. F.	mg/Kg	mg/Kg	mg/Kg	mg/Kg		
Arsenic	500	5	6010B	2.6	13.0	100	ND	ND	ND	ND		

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analayst: YC

ENVIRONMENTAL LABORATORY DATA REPORT

13-1326

ANALYTICAL RESULT FOR METALS

TTLC (Total Threshold Limit Concentration)

EPA METHOD 6010B

Sample Matrix: Soil

PROJECT: 7600 TYRONE

LABORATORY LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE ANALYZED	SAMPLE DESCRIPTION
LN06314	5/31/13	5/31/13	6/4/13	7600 TYRONE, B14-1
LN06316	6/1/13	6/1/13	6/4/13	7600 TYRONE, B14-3

METAL	LIMIT TTLC (mg/kg)	LIMIT STLC (mg/l)	METHOD	MDL	RL	D. F.	LN06314 mg/Kg	LN06316 mg/Kg				
Lead	1000	5	6010B	0.9	4.5	100	27.0	15.0				

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

R.L. - Report Limit

D. F. - Dilution Factor

** - exceed TTLC limit

* - exceed 10x STLC limit

J - concentration above MDL and below RL

Analyst: YC

PROJECT: 7600 TYRONE

COC 13-1326

QA/QC Report

I. Blank Spike (BS) / Blank Spike Duplicate (BSD)

DATE ANALYZED: 06/05/13

ANALYTICAL METHOD USEPA 6010/7000

BATCH #: $TTLCS-7753 (LN06329 LN06331 LN06337 LN06338 LN06340 LN06341 LN06343)

LAB SAMPLE I.D.: BLANK SOIL

UNIT: (Circle One) (mg/kg) mg/L

METAL	SAMPLE RESULT	SPIKE CONC	BS	%BS	(DUP) SPIKE CONC	BSD	%BSD	RPD	BS/BSD % REC. LIMIT	RPD LIMIT
Antimony	ND	200	153	76.5	200	147	73.5	4.0%	14 - 89	< 30
Arsenic	ND	200	203	102	200	203	102	0.0%	70 - 130	< 30
Barium	---	---	---	---	---	---	---	---	---	---
Beryllium	ND	200	189	94.5	200	191	95.5	1.1%	70 - 130	< 30
Cadmium	ND	200	196	98.0	200	194	97.0	1.0%	70 - 130	< 30
Chromium (T)	ND	200	193	96.5	200	196	98.0	1.5%	70 - 130	< 30
Cobalt	ND	200	206	103	200	203	102	1.0%	70 - 130	< 30
Copper	ND	200	190	95.0	200	195	97.5	2.6%	70 - 130	< 30
Lead	ND	200	199	99.5	200	199	99.5	0.0%	70 - 130	< 30
Molybdenum	ND	200	201	100	200	196	98.0	2.0%	70 - 130	< 30
Nickel	ND	200	197	98.5	200	199	99.5	1.0%	70 - 130	< 30
Selenium	ND	200	191	95.5	200	192	96.0	0.5%	70 - 130	< 30
Silver	---	---	---	---	---	---	---	---	---	---
Thallium	ND	200	171	85.5	200	174	87.0	1.7%	70 - 130	< 30
Vanadium	ND	200	199	99.5	200	202	101	1.5%	70 - 130	< 30
Zinc	ND	200	200	100	200	200	100	0.0%	70 - 130	< 30

BS = Blank Spike BSD = Blank Spike Duplicate RPD = Relative Percent Difference

%BS = Percent Recovery of Blank Spike %BSD = Percent Recovery of Blank Spike Duplicate

Analyst: KC

PROJECT: 7600 TYRONE **COC 13-1326**

QA/QC Report

II. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

DATE ANALYZED: 06/06/13 ANALYTICAL METHOD USEPA 6010/7000

BATCH #: $TTLCS-7753 (LN06329 LN06331 LN06337 LN06338 LN06340 LN06341 LN06343)

LAB SAMPLE I.D.: LN06337 UNIT: (Circle One) (mg/kg) mg/L

METAL	SAMPLE RESULT	SPIKE CONC	MS	%MS	(DUP) SPIKE CONC	MSD	%MSD	RPD	MS/MSD % REC. LIMIT	RPD LIMIT
Antimony	3.8	200	49	22.6	200	39	17.6	24.9%	14 - 89	< 30
Arsenic	ND	200	188	94.0	200	178	89.0	5.5%	70 - 130	< 30
Barium	---	---	---	---	---	---	---	---	---	---
Beryllium	ND	200	180	90.0	200	186	93.0	3.3%	70 - 130	< 30
Cadmium	3.6	200	174	85.2	200	172	84.2	1.2%	70 - 130	< 30
Chromium (T)	23	200	194	85.5	200	203	90.0	5.1%	70 - 130	< 30
Cobalt	18	200	193	87.5	200	193	87.5	0.0%	70 - 130	< 30
Copper	20	200	198	89.0	200	210	95.0	6.5%	70 - 130	< 30
Lead	14	200	175	80.5	200	176	81.0	0.6%	70 - 130	< 30
Molybdenum	ND	200	173	86.5	200	170	85.0	1.7%	70 - 130	< 30
Nickel	23	200	198	87.5	200	208	92.5	5.6%	70 - 130	< 30
Selenium	ND	200	179	89.5	200	178	89.0	0.6%	70 - 130	< 30
Silver	---	---	---	---	---	---	---	---	---	---
Thallium	ND	200	139	69.5	200	138	69.0	0.7%	70 - 130	< 30
Vanadium	35	200	212	88.5	200	226	95.5	7.6%	70 - 130	< 30
Zinc	74	200	247	86.5	200	260	93.0	7.2%	70 - 130	< 30

MS = Matrix Spike MSD = Matrix Spike Duplicate RPD = Relative Percent Difference
%MS = Percent Recovery of Matrix Spike %MSD = Percent Recovery of Matrix Spike Duplicate

Analyst: KC

PROJECT: 7600 TYRONE **COC 13-1326**

III. Calibration and Laboratory Quality Control Check Sample (LCS)

DATE ANALYZED: 06/05/13 ANALYTICAL USEPA 6010/7000

SUPPLY SOURCE: VHG LAB LCS I.D.: Q8732

LOT NUMBER: 201-0040 UNIT: (Circle One) (mg/kg) mg/L

METAL	LCS RESULTS mg/kg	TRUE VALUE mg/kg	% Recovery	Acceptable Range % Recovery
Antimony	68	80	85.0	48 - 84
Arsenic	420	400	105	70 - 130
Barium	387	400	96.8	70 - 130
Beryllium	10	12.5	80.0	70 - 130
Cadmium	11	12.5	88.0	70 - 130
Chromium (T)	79	80	98.8	70 - 130
Cobalt	43	50	86.0	70 - 130
Copper	81	80	101	70 - 130
Lead	85	80	106	70 - 130
Molybdenum	---	---	---	---
Nickel	82	80	102	70 - 130
Selenium	197	200	98.5	70 - 130
Silver	10.1	12.5	80.8	70 - 130
Thallium	70	80	87.5	70 - 130
Vanadium	89	80	111	70 - 130
Zinc	203	200	102	70 - 130

Analyst: KC

Reviewed by: JNC 6/24/13

ATTACHMENT #3

TOTAL EXTRACTABLE PETROLEUM
HYDROCARBONS (TEPH)
MOTOR OIL (MO)
DIESEL RANGE ORGANIC (DRO)

EPA METHOD 8015M

COC No. 13-1326

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015M
TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST. ID	RUN BATCH
LN06329	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B23-1	GC Agilent	053113
LN06331	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B23-3	GC Agilent	053113
LN06335	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B27-1	GC Agilent	053113
LN06337	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B27-3	GC Agilent	053113
LN06338	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B24-1	GC Agilent	053113
LN06340	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B24-3	GC Agilent	053113
LN06341	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B28-1	GC Agilent	053113

	MDL / PQL mg/kg	MB mg/kg	LN06329 mg/kg	LN06331 mg/kg	LN06335 mg/kg	LN06337 mg/kg	LN06338 mg/kg	LN06340 mg/kg	LN06341 mg/kg
Dilution Factor		1	1	1	1	1	1	1	1
TEPH (C9 - C36)	4 / 20	ND	ND	4.2 J	4.0 J	13.1 J	60.6	4.4 J	ND
DRO (C10 - C28)	29 / 145	ND	ND	ND	ND	ND	ND	ND	ND
MOTOR OIL	35 / 175	ND	ND	ND	ND	ND	60.6 J	ND	ND
Quality Control Data		MB							
Surrogate/Internal Std.	% ACP	% RC	% RC	% RC	% RC	% RC	% RC	% RC	% RC
1-Chlorooctadecane	(60 - 140)	90.5%	96.5%	96.0%	106%	94.0%	100%	96.5%	80.0%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - above MDL but below PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1326

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015M
TEPH (Total Extractable Petroleum Hydrocarbons, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST. ID	RUN BATCH
LN06343	05/29/13	05/29/13	05/31/13	05/31/13	7600 TYRONE, B28-3	GC Agilent	053113

	MDL / PQL mg/kg		LN06343 mg/kg
Dilution Factor			1
TEPH (C9 - C36)	4 / 20		ND
DRO (C10 - C28)	29 / 145		ND
MOTOR OIL	35 / 175		ND
Quality Control Data			
Surrogate/Internal Std.	% ACP		% RC
1-Chlorooctadecane	(60 - 140)		107%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1326

ENVIRONMENTAL LABORATORY

QA/QC REPORT
TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL

Project: 7600 TYRONE

I. Sample Duplicate

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INST. ID	RUN BATCH
LN06216 DUP	05/28/13	05/28/13	05/31/13	05/31/13	7600 TYRONE, B22-3	GC Agilent	053113

	MDL / PQL mg/kg		LN06216 DUP mg/kg
Dilution Factor			1
TEPH (C9 - C36)	4 / 20		ND
DRO (C10 - C28)	29 / 145		ND
MOTOR OIL	35 / 175		ND
Quality Control Data			
Surrogate/Internal Std.	% ACP		% RC
1-Chlorooctadecane	(60 - 140)		88.5%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - above MDL but below PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

*High recovery caused by overlap with TEPH peaks.

COC No. 13-1326

ENVIRONMENTAL LABORATORY

QA/QC REPORT

TEPH (Total Extractable Petroleum Hydrocarbon, C9 - C36)

Sample Matrix: SOIL
Project: 7600 TYRONE

II. Laboratory Quality Control Check Sample (LCS)

LCS Log No.: Q8245 (TEPH), Q8709 (DRO), Q8278 (MO)

Unit: mg/kg

ANALYTE		RUN BATCH	DATE ANALYZED	SPIKE CONC.	RESULT	%REC.	Acceptable Range
TEPH		053113	5/31/2013	280	209	74.6	70 - 130
DRO		053113	5/31/2013	500	379	75.8	70 - 130
MO		053113	5/31/2013	500	436	87.2	70 - 130

Analysts J. Yi

Reviewed by R. Gentallan
6/4/13

ATTACHMENT #4

GASOLINE RANGE ORGANICS (GRO)

EPA METHOD 8015B

COC No. 13-1326

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015B
GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO.	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INSTR. ID	RUN LOG/BATCH
LN06329	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B23-1	AG gas	20130530
LN06331	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B23-3	AG gas	20130530
LN06335	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B27-1	AG gas	20130530
LN06337	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B27-3	AG gas	20130530
LN06338	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B24-1	AG gas	20130530
LN06340	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B24-3	AG gas	20130530
LN06341	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B28-1	AG gas	20130530

	MDL / PQL mg/kg	MB mg/kg	LN06329 mg/kg	LN06331 mg/kg	LN06335 mg/kg	LN06337 mg/kg	LN06338 mg/kg	LN06340 mg/kg	LN06341 mg/kg
Dilution Factor	1	1	1	1	1	1	4**	1	1
Gasoline (GRO)	1.1 / 5.5	ND	ND	ND	ND	ND	ND	ND	ND
Quality Control Data									
Surrogate/Internal Std.	% ACP	% RC	%RC	%RC	%RC	%RC	%RC	%RC	%RC
1, 2 Dichlorobenzene-d4	(70 - 130)	109%	107%	108%	108%	108%	107%	108%	108%

ND - Not Detected; below method detection limit

MDL - Method Detection Limit

PQL - Practical Quantitation Limit (5 x MDL)

J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent

% RC = % Recovery

MB - Method Blank

** *Sample was analyzed at higher dilution : Sample extract was either exhibiting high turbidity or highly colored*

MDL/PQL at higher dilution is calculted as MDL/PQL (dilution x1) multipied by the dilution factor

COC No. 13-1326

ENVIRONMENTAL LABORATORY

ANALYTICAL TEST RESULT FOR EPA 8015B
GRO (Gasoline Range Organics)

Sample Matrix: SOIL

Project: 7600 TYRONE

SAMPLE LOG NO	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTED	DATE ANALYZED	SAMPLE DESCRIPTION	INSTR ID	RUN LOG/BATCH
LN06343	05/29/13	05/29/13	05/29/13	05/30/13	7600 TYRONE, B28-3	AG gas	20130530

	MDL / PQL mg/kg	MB mg/kg	LN06343 mg/kg
Dilution Factor	1	1	1
Gasoline (GRO)	1.1 / 5.5	ND	ND

Quality Control Data

Surrogate/Internal Std.	% ACP	% RC	%RC
1, 2 Dichlorobenzene-d4	(70 - 130)	109%	108%

ND - Not Detected; below method detection limit
MDL - Method Detection Limit
PQL - Practical Quantitation Limit (5 x MDL)
J - Geater than MDL, but less than PQL

ACP % = Acceptable Range of Percent
% RC = % Recovery
MB - Method Blank

ENVIRONMENTAL LABORATORY

QA/QC REPORT
GRO (Gasoline Range Organics)

Sample Matrix: SOIL
Project: 7600 TYRONE

I. Matrix Spike (MS) / Matrix Spike Duplicate (MSD)
Reporting Unit: mg/kg

SAMPLE	BATCH	SAMPLE	SPIKE						MS/MSD	RPD
LOG NO.	QC	CONC	CONC	MS	% MS	MSD	% MSD	RPD	% ACP	ACP
LN06205	20130530	ND	22.0	22.4	102%	22.9	104%	2.2%	70-130	30

SPIKE CONC = Spiking Concentration;
MS = Matrix Spike
MSD = Matrix Spike Duplicate
% MS = Percent Recovery of MS
% MSD = Percent Recovery of MSD
RPD = Relative Percent Difference
ACP = Acceptable Range of Percent

II. Laboratory Quality Control Check Sample (LCS)
LCS Log No. Q8637

ANALYTE	BATCH QC	DATE ANALYZED	SPIKE CONC.	RESULT	% REC.	Acceptable Range
Gasoline	20130530	5/30/2013	22.0	20.9	95.0	70 - 130

Analyzed by *B. Estrada*
Reviewed by *R. Gentallan* 6/4/13

ATTACHMENT #5

POLYCHLORINATED BIPHENYLS (PCBs)

EPA Method 8082

ENVIRONMENTAL LABORATORY DATA REPORT

ANALYTICAL RESULT FOR PCBs by EPA600/SR-94/112/8082
(Polychlorinated Biphenyls)
Sample Matrix: Soil (Low Level)

LABORATORY LOG NO	DATE SAMPLED	DATE RECEIVED	DATE EXTRACTECD	DATE ANALYZED	SAMPLE DESCRIPTION
LN06329	5/29/2013	5/29/2013	5/30/2013	5/31/2013	
LN06331	5/29/2013	5/29/2013	5/30/2013	5/31/2013	
LN06335	5/29/2013	5/29/2013	5/30/2013	5/31/2013	
LN06337	5/29/2013	5/29/2013	5/30/2013	5/31/2013	
LN06341	5/29/2013	5/29/2013	5/30/2013	6/4/2013	
LN06343	5/29/2013	5/29/2013	5/30/2013	6/4/2013	

PARAMETERS	MDL/PQL (mg/kg)	LN06329 (mg/kg)	LN06331 (mg/kg)	LN06335 (mg/kg)	LN06337 (mg/kg)	LN06341 (mg/kg)	LN06343 (mg/kg)
PCB - 1221	0.07/0.2	ND	ND	ND	ND	ND	ND
PCB - 1232	0.07/0.2	ND	ND	ND	ND	ND	ND
PCB - 1242	0.07/0.2	ND	ND	ND	ND	ND	ND
PCB - 1248	0.07/0.2	ND	ND	ND	ND	ND	ND
PCB - 1254	0.07/0.2	ND	ND	ND	ND	ND	ND
PCB - 1260	0.07/0.2	ND	ND	ND	ND	ND	ND
SURROGATE PARAMETERS	QC LIMIT %	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
DECACHLOROBIPHENYL	70 - 130	99	94	102	106	95	93

MDL - Method Detection Limit

ND - Not Detected; below method detection limit

Analyst: D. Wong

Reviewed by: 6/4/13

600001

Project Name : Tyrone Property, 7600 Tyrone Ave., Van Nuys, CA

QA/QC Report

I. Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

ANALYTICAL METHOD: USEPA 600/SR-94/112
USEPA 8082

DATE ANALYZED: 06/04/13
BATCH #: 53013
LAB SAMPLE I.D.: LN06364

UNIT: mg/kg

PARAMETERS	SAMPLE RESULT	SPIKE CONC	MS	%MS	(DUP) SPIKE CONC	MSD	%MSD	RPD	MS/MSD % REC LIMIT	% RPD LIMIT
PCB-1242	0.0	25.0	20.8	83	25.0	20.3	81	2%	70 - 130	30
PCB-1260	0.0	25.0	NR	NR	25.0	NR	NR	NR	70 - 130	30

NR = Not reported dut to matrix interference.

MS - Matrix Spike *MSD - Matrix Spike Dupllicate*
%MS - Percent Recovery of Matrix Spike

RPD - Relative Percent Difference
%MSD - Percent Recovery of Matrix Spike Duplicate

Reviewed by: 6/4/13

Project Name : Tyrone Property, 7600 Tyrone Ave., Van Nuys, CA

II. Laboratory Control Check Sample (LCS)

DATE ANALYZED: 06/04/13 ANALYTICAL METHOD: USEPA 600/SR-94/112

BATCH No. 053013 UNIT: mg/kg USEPA 8082

PARAMETERS		LCS1 TRUE CONC	LCS1 RESULT	LCS1 % RC	LCS2 RESULT	LCS2 % RC	ACCEPTANCE LIMITS (%)
PCB - 1242		25.0	19.6	78	NA	NA	80 - 120
PCB - 1260		25.0	21.9	88	NA	NA	80 - 120

Note: Low LCS recovery for 1242 (78%). Although LCS is 2% below acceptance limit, it should have no significant effect on the quality of this batch of analyses.

%RC - Percent Recovery
NA - Not Analyzed
Batch - ten samples per batch

Reviewed by: RB 6/4/13

ATTACHMENT #6

PESTICIDES

EPA METHOD 8081

CERTIFICATE OF ANALYSIS

Client:	LADWP - Environmental Laboratory 1630 North Main Street, Bldg. 7, Rm 311 Los Angeles, CA 90012	**Report Date:**	06/13/13 15:54
		Received Date:	05/30/13 09:50
		Turn Around:	5 workdays
Attention:	Kevin Han	**Work Order #:**	3E30013
Phone:	213-367-7267		47055-2, COC #13-1321,26
Fax:	(213) 367-7285	**Client Project:**	7600 Tyrone Ave,COC #13-1321,26, WO#

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Kevin Han :

Enclosed are the results of analyses for samples received 05/30/13 09:50 with the Chain of Custody document. The samples were received in good condition, at 2.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Kim G Tu
Project Manager

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
LN06208	Client		3E30013-01	Solid	05/28/13 08:10
LN06210	Client		3E30013-02	Solid	05/28/13 08:14
LN06232	Client		3E30013-03	Solid	05/28/13 09:50
LN06234	Client		3E30013-04	Solid	05/28/13 09:54
LN06250	Client		3E30013-05	Solid	05/28/13 10:50
LN06252	Client		3E30013-06	Solid	05/28/13 10:54
LN06320	Client		3E30013-07	Solid	05/29/13 07:45
LN06322	Client		3E30013-08	Solid	05/29/13 07:49
LN06323	Client		3E30013-09	Solid	05/29/13 08:00
LN06325	Client		3E30013-10	Solid	05/29/13 08:04
LN06326	Client		3E30013-11	Solid	05/29/13 08:10
LN06328	Client		3E30013-12	Solid	05/29/13 08:14
LN06332	Client		3E30013-13	Solid	05/29/13 08:40
LN06334	Client		3E30013-14	Solid	05/29/13 08:44
LN06341	Client		3E30013-15	Solid	05/29/13 09:30
LN06343	Client		3E30013-16	Solid	05/29/13 09:34

ANALYSES

Chlorinated Pesticides and/or PCBs

700002

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-01 **LN06208**

Sampled: 05/28/13 08:10 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 17:02 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	ND	23	23	23	ug/kg	1	
4,4'-DDD	ND	4.5	23	23	ug/kg	1	
4,4'-DDE	ND	7.2	23	23	ug/kg	1	
4,4'-DDT	ND	5.1	23	23	ug/kg	1	
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	14	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	ND	7.3	23	23	ug/kg	1	
Chlordane (tech)	ND	95	470	470	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.3	23	23	ug/kg	1	
Dieldrin	ND	7.0	23	23	ug/kg	1	
Endosulfan I	ND	5.3	23	23	ug/kg	1	
Endosulfan II	ND	3.0	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.1	23	23	ug/kg	1	
Endrin	ND	12	23	23	ug/kg	1	
Endrin aldehyde	ND	6.5	23	23	ug/kg	1	
Endrin ketone	ND	4.3	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.3	23	23	ug/kg	1	
Heptachlor	ND	13	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.5	23	23	ug/kg	1	
Kepone	ND	200	470	470	ug/kg	1	
Methoxychlor	ND	5.1	23	23	ug/kg	1	
Mirex	ND	7.3	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	ND	80	700	700	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*68 %*	Conc:*158*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*63 %*	Conc:*145*		*18-112*	%		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-02 **LN06210**

Sampled: 05/28/13 08:14 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/04/13 17:30 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.7	24	24	ug/kg	1	
4,4'-DDE	ND	7.5	24	24	ug/kg	1	
4,4'-DDT	ND	5.4	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	13	24	24	ug/kg	1	
beta-BHC	ND	7.7	24	24	ug/kg	1	
Chlordane (tech)	ND	100	490	490	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.6	24	24	ug/kg	1	
Dieldrin	ND	7.3	24	24	ug/kg	1	
Endosulfan I	ND	5.6	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.4	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.8	24	24	ug/kg	1	
Endrin ketone	ND	4.5	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.8	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.9	24	24	ug/kg	1	
Kepone	ND	210	490	490	ug/kg	1	
Methoxychlor	ND	5.4	24	24	ug/kg	1	
Mirex	ND	7.6	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	84	730	730	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*61 %*	Conc:*148*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*67 %*	Conc:*162*		*18-112*	%		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-03 **LN06232**

Sampled: 05/28/13 09:50 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 17:58 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	21	21	21	ug/kg	1	
2,4'-DDE	ND	21	21	21	ug/kg	1	
2,4'-DDT	ND	21	21	21	ug/kg	1	
4,4'-DDD	ND	4.1	21	21	ug/kg	1	
4,4'-DDE	ND	6.5	21	21	ug/kg	1	
4,4'-DDT	ND	4.6	21	21	ug/kg	1	
Aldrin	ND	9.8	21	21	ug/kg	1	
alpha-BHC	ND	12	21	21	ug/kg	1	
alpha-Chlordane	ND	11	21	21	ug/kg	1	
beta-BHC	ND	6.7	21	21	ug/kg	1	
Chlordane (tech)	ND	86	420	420	ug/kg	1	
cis-Nonachlor	ND	21	21	21	ug/kg	1	
DCPA	ND	21	21	21	ug/kg	1	
delta-BHC	ND	4.8	21	21	ug/kg	1	
Dieldrin	ND	6.3	21	21	ug/kg	1	
Endosulfan I	ND	4.8	21	21	ug/kg	1	
Endosulfan II	ND	2.7	21	21	ug/kg	1	
Endosulfan sulfate	ND	4.6	21	21	ug/kg	1	
Endrin	ND	11	21	21	ug/kg	1	
Endrin aldehyde	ND	5.9	21	21	ug/kg	1	
Endrin ketone	ND	3.9	21	21	ug/kg	1	
gamma-BHC (Lindane)	ND	11	21	21	ug/kg	1	
gamma-Chlordane	ND	8.4	21	21	ug/kg	1	
Heptachlor	ND	11	21	21	ug/kg	1	
Heptachlor epoxide	ND	7.7	21	21	ug/kg	1	
Kepone	ND	190	420	420	ug/kg	1	
Methoxychlor	ND	4.6	21	21	ug/kg	1	
Mirex	ND	6.6	21	21	ug/kg	1	
Oxychlordane	ND	21	21	21	ug/kg	1	
Toxaphene	ND	72	630	630	ug/kg	1	
trans-Nonachlor	ND	21	21	21	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*135*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*77 %*	Conc:*163*		*18-112*	%		

700005

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-04 **LN06234**

Sampled: 05/28/13 09:54 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 18:26 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.6	24	24	ug/kg	1	
4,4'-DDE	ND	7.4	24	24	ug/kg	1	
4,4'-DDT	ND	5.3	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	12	24	24	ug/kg	1	
beta-BHC	ND	7.6	24	24	ug/kg	1	
Chlordane (tech)	ND	98	480	480	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.5	24	24	ug/kg	1	
Dieldrin	ND	7.2	24	24	ug/kg	1	
Endosulfan I	ND	5.5	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.3	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.7	24	24	ug/kg	1	
Endrin ketone	ND	4.4	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.6	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.7	24	24	ug/kg	1	
Kepone	ND	210	480	480	ug/kg	1	
Methoxychlor	ND	5.3	24	24	ug/kg	1	
Mirex	ND	7.5	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	82	720	720	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*59 %*	Conc:*141*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*67 %*	Conc:*161*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-05 **LN06250**

Sampled: 05/28/13 10:50 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 18:55 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	ND	23	23	23	ug/kg	1	
4,4´-DDD	ND	4.4	23	23	ug/kg	1	
4,4´-DDE	ND	7.1	23	23	ug/kg	1	
4,4´-DDT	ND	5.0	23	23	ug/kg	1	
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	13	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	ND	7.2	23	23	ug/kg	1	
Chlordane (tech)	ND	94	460	460	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.2	23	23	ug/kg	1	
Dieldrin	ND	6.9	23	23	ug/kg	1	
Endosulfan I	ND	5.2	23	23	ug/kg	1	
Endosulfan II	ND	2.9	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.0	23	23	ug/kg	1	
Endrin	ND	12	23	23	ug/kg	1	
Endrin aldehyde	ND	6.4	23	23	ug/kg	1	
Endrin ketone	ND	4.2	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.2	23	23	ug/kg	1	
Heptachlor	ND	12	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.3	23	23	ug/kg	1	
Kepone	ND	200	460	460	ug/kg	1	
Methoxychlor	ND	5.0	23	23	ug/kg	1	
Mirex	ND	7.2	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	ND	79	690	690	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*146*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*65 %*	Conc:*148*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-06 **LN06252**

Sampled: 05/28/13 10:54 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/04/13 19:23 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	ND	23	23	23	ug/kg	1	
4,4'-DDD	ND	4.4	23	23	ug/kg	1	
4,4'-DDE	ND	7.1	23	23	ug/kg	1	
4,4'-DDT	ND	5.1	23	23	ug/kg	1	
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	13	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	ND	7.3	23	23	ug/kg	1	
Chlordane (tech)	ND	94	460	460	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.3	23	23	ug/kg	1	
Dieldrin	ND	6.9	23	23	ug/kg	1	
Endosulfan I	ND	5.3	23	23	ug/kg	1	
Endosulfan II	ND	2.9	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.1	23	23	ug/kg	1	
Endrin	ND	12	23	23	ug/kg	1	
Endrin aldehyde	ND	6.5	23	23	ug/kg	1	
Endrin ketone	ND	4.2	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.2	23	23	ug/kg	1	
Heptachlor	ND	13	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.4	23	23	ug/kg	1	
Kepone	ND	200	460	460	ug/kg	1	
Methoxychlor	ND	5.1	23	23	ug/kg	1	
Mirex	ND	7.2	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	ND	79	690	690	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*146*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*64 %*	Conc:*147*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-07 **LN06320**

Sampled: 05/29/13 07:45 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 19:51 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	21	21	21	ug/kg	1	
2,4'-DDE	ND	21	21	21	ug/kg	1	
2,4'-DDT	ND	21	21	21	ug/kg	1	
4,4'-DDD	ND	4.0	21	21	ug/kg	1	
4,4'-DDE	**40**	6.3	21	21	ug/kg	1	
4,4'-DDT	**10**	4.5	21	21	ug/kg	1	J
Aldrin	ND	9.5	21	21	ug/kg	1	
alpha-BHC	ND	12	21	21	ug/kg	1	
alpha-Chlordane	ND	11	21	21	ug/kg	1	
beta-BHC	ND	6.5	21	21	ug/kg	1	
Chlordane (tech)	ND	84	410	410	ug/kg	1	
cis-Nonachlor	ND	21	21	21	ug/kg	1	
DCPA	ND	21	21	21	ug/kg	1	
delta-BHC	ND	4.7	21	21	ug/kg	1	
Dieldrin	ND	6.2	21	21	ug/kg	1	
Endosulfan I	ND	4.7	21	21	ug/kg	1	
Endosulfan II	ND	2.6	21	21	ug/kg	1	
Endosulfan sulfate	ND	4.5	21	21	ug/kg	1	
Endrin	ND	11	21	21	ug/kg	1	
Endrin aldehyde	ND	5.8	21	21	ug/kg	1	
Endrin ketone	ND	3.8	21	21	ug/kg	1	
gamma-BHC (Lindane)	ND	11	21	21	ug/kg	1	
gamma-Chlordane	ND	8.2	21	21	ug/kg	1	
Heptachlor	ND	11	21	21	ug/kg	1	
Heptachlor epoxide	ND	7.5	21	21	ug/kg	1	
Kepone	ND	180	410	410	ug/kg	1	
Methoxychlor	ND	4.5	21	21	ug/kg	1	
Mirex	ND	6.4	21	21	ug/kg	1	
Oxychlordane	ND	21	21	21	ug/kg	1	
Toxaphene	ND	71	620	620	ug/kg	1	
trans-Nonachlor	ND	21	21	21	ug/kg	1	
Surr: Decachlorobiphenyl	*66 %*	Conc:*135*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*70 %*	Conc:*144*		*18-112*	%		

700009

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-08 **LN06322**

Sampled: 05/29/13 07:49 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 20:20 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	25	25	25	ug/kg	1	
2,4'-DDE	ND	25	25	25	ug/kg	1	
2,4'-DDT	ND	25	25	25	ug/kg	1	
4,4'-DDD	ND	4.8	25	25	ug/kg	1	
4,4'-DDE	ND	7.7	25	25	ug/kg	1	
4,4'-DDT	ND	5.5	25	25	ug/kg	1	
Aldrin	ND	12	25	25	ug/kg	1	
alpha-BHC	ND	15	25	25	ug/kg	1	
alpha-Chlordane	ND	13	25	25	ug/kg	1	
beta-BHC	ND	7.9	25	25	ug/kg	1	
Chlordane (tech)	ND	100	500	500	ug/kg	1	
cis-Nonachlor	ND	25	25	25	ug/kg	1	
DCPA	ND	25	25	25	ug/kg	1	
delta-BHC	ND	5.7	25	25	ug/kg	1	
Dieldrin	ND	7.5	25	25	ug/kg	1	
Endosulfan I	ND	5.7	25	25	ug/kg	1	
Endosulfan II	ND	3.2	25	25	ug/kg	1	
Endosulfan sulfate	ND	5.5	25	25	ug/kg	1	
Endrin	ND	13	25	25	ug/kg	1	
Endrin aldehyde	ND	7.0	25	25	ug/kg	1	
Endrin ketone	ND	4.6	25	25	ug/kg	1	
gamma-BHC (Lindane)	ND	13	25	25	ug/kg	1	
gamma-Chlordane	ND	10	25	25	ug/kg	1	
Heptachlor	ND	14	25	25	ug/kg	1	
Heptachlor epoxide	ND	9.1	25	25	ug/kg	1	
Kepone	ND	220	500	500	ug/kg	1	
Methoxychlor	ND	5.5	25	25	ug/kg	1	
Mirex	ND	7.8	25	25	ug/kg	1	
Oxychlordane	ND	25	25	25	ug/kg	1	
Toxaphene	ND	85	750	750	ug/kg	1	
trans-Nonachlor	ND	25	25	25	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*156*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*65 %*	Conc:*162*		*18-112*	%		

700010

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-09 **LN06323**

Sampled: 05/29/13 08:00 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/04/13 20:48 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.7	24	24	ug/kg	1	
4,4'-DDE	ND	7.5	24	24	ug/kg	1	
4,4'-DDT	ND	5.3	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	13	24	24	ug/kg	1	
beta-BHC	ND	7.7	24	24	ug/kg	1	
Chlordane (tech)	ND	99	490	490	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.5	24	24	ug/kg	1	
Dieldrin	ND	7.3	24	24	ug/kg	1	
Endosulfan I	ND	5.5	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.3	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.8	24	24	ug/kg	1	
Endrin ketone	ND	4.5	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.7	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.8	24	24	ug/kg	1	
Kepone	ND	210	490	490	ug/kg	1	
Methoxychlor	ND	5.3	24	24	ug/kg	1	
Mirex	ND	7.6	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	83	730	730	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*65 %*	Conc:*157*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*79 %*	Conc:*191*		*18-112*	%		

700011

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-10 **LN06325**

Sampled: 05/29/13 08:04 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/04/13 23:38 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	ND	23	23	23	ug/kg	1	
4,4´-DDD	ND	4.5	23	23	ug/kg	1	
4,4´-DDE	**15**	7.2	23	23	ug/kg	1	J
4,4´-DDT	**7.8**	5.2	23	23	ug/kg	1	J
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	14	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	ND	7.4	23	23	ug/kg	1	
Chlordane (tech)	ND	96	470	470	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.4	23	23	ug/kg	1	
Dieldrin	ND	7.0	23	23	ug/kg	1	
Endosulfan I	ND	5.4	23	23	ug/kg	1	
Endosulfan II	ND	3.0	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.2	23	23	ug/kg	1	
Endrin	ND	13	23	23	ug/kg	1	
Endrin aldehyde	ND	6.6	23	23	ug/kg	1	
Endrin ketone	ND	4.3	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.4	23	23	ug/kg	1	
Heptachlor	ND	13	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.5	23	23	ug/kg	1	
Kepone	ND	210	470	470	ug/kg	1	
Methoxychlor	ND	5.2	23	23	ug/kg	1	
Mirex	ND	7.3	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	ND	80	700	700	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*150*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*65 %*	Conc:*152*		*18-112*	%		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-11 **LN06326**

Sampled: 05/29/13 08:10 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 00:06 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	22	22	22	ug/kg	1	
2,4'-DDE	ND	22	22	22	ug/kg	1	
2,4'-DDT	ND	22	22	22	ug/kg	1	
4,4'-DDD	ND	4.2	22	22	ug/kg	1	
4,4'-DDE	ND	6.8	22	22	ug/kg	1	
4,4'-DDT	ND	4.8	22	22	ug/kg	1	
Aldrin	ND	10	22	22	ug/kg	1	
alpha-BHC	ND	13	22	22	ug/kg	1	
alpha-Chlordane	ND	11	22	22	ug/kg	1	
beta-BHC	ND	6.9	22	22	ug/kg	1	
Chlordane (tech)	ND	89	440	440	ug/kg	1	
cis-Nonachlor	ND	22	22	22	ug/kg	1	
DCPA	ND	22	22	22	ug/kg	1	
delta-BHC	ND	5.0	22	22	ug/kg	1	
Dieldrin	ND	6.6	22	22	ug/kg	1	
Endosulfan I	ND	5.0	22	22	ug/kg	1	
Endosulfan II	ND	2.8	22	22	ug/kg	1	
Endosulfan sulfate	ND	4.8	22	22	ug/kg	1	
Endrin	ND	12	22	22	ug/kg	1	
Endrin aldehyde	ND	6.1	22	22	ug/kg	1	
Endrin ketone	ND	4.0	22	22	ug/kg	1	
gamma-BHC (Lindane)	ND	11	22	22	ug/kg	1	
gamma-Chlordane	ND	8.8	22	22	ug/kg	1	
Heptachlor	ND	12	22	22	ug/kg	1	
Heptachlor epoxide	ND	8.0	22	22	ug/kg	1	
Kepone	ND	190	440	440	ug/kg	1	
Methoxychlor	ND	4.8	22	22	ug/kg	1	
Mirex	ND	6.8	22	22	ug/kg	1	
Oxychlordane	ND	22	22	22	ug/kg	1	
Toxaphene	ND	75	660	660	ug/kg	1	
trans-Nonachlor	ND	22	22	22	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*137*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*59 %*	Conc:*129*		*18-112*	%		

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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-12 **LN06328**

Sampled: 05/29/13 08:14 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 00:34 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	**190**	24	24	24	ug/kg	1	
4,4´-DDD	ND	4.7	24	24	ug/kg	1	
4,4´-DDE	**740**	37	120	120	ug/kg	5	M-06
4,4´-DDT	**270**	5.3	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	13	24	24	ug/kg	1	
beta-BHC	**37**	7.7	24	24	ug/kg	1	
Chlordane (tech)	ND	99	490	490	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.5	24	24	ug/kg	1	
Dieldrin	ND	7.3	24	24	ug/kg	1	
Endosulfan I	ND	5.5	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.3	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.8	24	24	ug/kg	1	
Endrin ketone	ND	4.5	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.7	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.8	24	24	ug/kg	1	
Kepone	ND	210	490	490	ug/kg	1	
Methoxychlor	ND	5.3	24	24	ug/kg	1	
Mirex	ND	7.6	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	**2400**	83	730	730	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*154*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*61 %*	Conc:*148*		*18-112*	%		

700014

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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-13 **LN06332**

Sampled: 05/29/13 08:40 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 01:02 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	25	25	25	ug/kg	1	
2,4'-DDE	ND	25	25	25	ug/kg	1	
2,4'-DDT	ND	25	25	25	ug/kg	1	
4,4'-DDD	ND	4.7	25	25	ug/kg	1	
4,4'-DDE	ND	7.5	25	25	ug/kg	1	
4,4'-DDT	ND	5.4	25	25	ug/kg	1	
Aldrin	ND	11	25	25	ug/kg	1	
alpha-BHC	ND	14	25	25	ug/kg	1	
alpha-Chlordane	ND	13	25	25	ug/kg	1	
beta-BHC	ND	7.7	25	25	ug/kg	1	
Chlordane (tech)	ND	100	490	490	ug/kg	1	
cis-Nonachlor	ND	25	25	25	ug/kg	1	
DCPA	ND	25	25	25	ug/kg	1	
delta-BHC	ND	5.6	25	25	ug/kg	1	
Dieldrin	ND	7.4	25	25	ug/kg	1	
Endosulfan I	ND	5.6	25	25	ug/kg	1	
Endosulfan II	ND	3.1	25	25	ug/kg	1	
Endosulfan sulfate	ND	5.4	25	25	ug/kg	1	
Endrin	ND	13	25	25	ug/kg	1	
Endrin aldehyde	ND	6.9	25	25	ug/kg	1	
Endrin ketone	ND	4.5	25	25	ug/kg	1	
gamma-BHC (Lindane)	ND	13	25	25	ug/kg	1	
gamma-Chlordane	ND	9.8	25	25	ug/kg	1	
Heptachlor	ND	13	25	25	ug/kg	1	
Heptachlor epoxide	ND	8.9	25	25	ug/kg	1	
Kepone	ND	220	490	490	ug/kg	1	
Methoxychlor	ND	5.4	25	25	ug/kg	1	
Mirex	ND	7.6	25	25	ug/kg	1	
Oxychlordane	ND	25	25	25	ug/kg	1	
Toxaphene	ND	84	740	740	ug/kg	1	
trans-Nonachlor	ND	25	25	25	ug/kg	1	
Surr: Decachlorobiphenyl	*56 %*	Conc:*138*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*67 %*	Conc:*165*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-14 **LN06334**

Sampled: 05/29/13 08:44 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 01:31 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.5	24	24	ug/kg	1	
4,4'-DDE	ND	7.3	24	24	ug/kg	1	
4,4'-DDT	ND	5.2	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	12	24	24	ug/kg	1	
beta-BHC	ND	7.5	24	24	ug/kg	1	
Chlordane (tech)	ND	97	470	470	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.4	24	24	ug/kg	1	
Dieldrin	ND	7.1	24	24	ug/kg	1	
Endosulfan I	ND	5.4	24	24	ug/kg	1	
Endosulfan II	ND	3.0	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.2	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.6	24	24	ug/kg	1	
Endrin ketone	ND	4.4	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	12	24	24	ug/kg	1	
gamma-Chlordane	ND	9.5	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.6	24	24	ug/kg	1	
Kepone	ND	210	470	470	ug/kg	1	
Methoxychlor	ND	5.2	24	24	ug/kg	1	
Mirex	ND	7.4	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	81	710	710	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*152*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*70 %*	Conc:*165*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-15 **LN06341**

Sampled: 05/29/13 09:30 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W3E1479 Prepared: 05/31/13 07:26 Analyzed: 06/05/13 02:00 Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	ND	24	24	24	ug/kg	1	
2,4'-DDE	ND	24	24	24	ug/kg	1	
2,4'-DDT	ND	24	24	24	ug/kg	1	
4,4'-DDD	ND	4.6	24	24	ug/kg	1	
4,4'-DDE	ND	7.4	24	24	ug/kg	1	
4,4'-DDT	ND	5.3	24	24	ug/kg	1	
Aldrin	ND	11	24	24	ug/kg	1	
alpha-BHC	ND	14	24	24	ug/kg	1	
alpha-Chlordane	ND	12	24	24	ug/kg	1	
beta-BHC	ND	7.6	24	24	ug/kg	1	
Chlordane (tech)	ND	98	480	480	ug/kg	1	
cis-Nonachlor	ND	24	24	24	ug/kg	1	
DCPA	ND	24	24	24	ug/kg	1	
delta-BHC	ND	5.5	24	24	ug/kg	1	
Dieldrin	ND	7.2	24	24	ug/kg	1	
Endosulfan I	ND	5.5	24	24	ug/kg	1	
Endosulfan II	ND	3.1	24	24	ug/kg	1	
Endosulfan sulfate	ND	5.3	24	24	ug/kg	1	
Endrin	ND	13	24	24	ug/kg	1	
Endrin aldehyde	ND	6.7	24	24	ug/kg	1	
Endrin ketone	ND	4.4	24	24	ug/kg	1	
gamma-BHC (Lindane)	ND	13	24	24	ug/kg	1	
gamma-Chlordane	ND	9.6	24	24	ug/kg	1	
Heptachlor	ND	13	24	24	ug/kg	1	
Heptachlor epoxide	ND	8.8	24	24	ug/kg	1	
Kepone	ND	210	480	480	ug/kg	1	
Methoxychlor	ND	5.3	24	24	ug/kg	1	
Mirex	ND	7.5	24	24	ug/kg	1	
Oxychlordane	ND	24	24	24	ug/kg	1	
Toxaphene	ND	82	720	720	ug/kg	1	
trans-Nonachlor	ND	24	24	24	ug/kg	1	
Surr: Decachlorobiphenyl	*63 %*	Conc:*151*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*69 %*	Conc:*166*		*18-112*	%		

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Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

3E30013-16 **LN06343**

Sampled: 05/29/13 09:34 **Sampled By:** Client **Matrix:** Solid

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W3E1479 | Prepared: 05/31/13 07:26 | Analyzed: 06/05/13 11:23 | Analyst: bma

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
2,4'-DDD	**36**	23	23	23	ug/kg	1	
2,4'-DDE	ND	23	23	23	ug/kg	1	
2,4'-DDT	**94**	23	23	23	ug/kg	1	
4,4'-DDD	ND	4.5	23	23	ug/kg	1	
4,4'-DDE	**440**	7.2	23	23	ug/kg	1	
4,4'-DDT	**260**	5.1	23	23	ug/kg	1	
Aldrin	ND	11	23	23	ug/kg	1	
alpha-BHC	ND	14	23	23	ug/kg	1	
alpha-Chlordane	ND	12	23	23	ug/kg	1	
beta-BHC	**42**	7.4	23	23	ug/kg	1	
Chlordane (tech)	ND	95	470	470	ug/kg	1	
cis-Nonachlor	ND	23	23	23	ug/kg	1	
DCPA	ND	23	23	23	ug/kg	1	
delta-BHC	ND	5.3	23	23	ug/kg	1	
Dieldrin	ND	7.0	23	23	ug/kg	1	
Endosulfan I	ND	5.3	23	23	ug/kg	1	
Endosulfan II	ND	3.0	23	23	ug/kg	1	
Endosulfan sulfate	ND	5.1	23	23	ug/kg	1	
Endrin	ND	13	23	23	ug/kg	1	
Endrin aldehyde	ND	6.5	23	23	ug/kg	1	
Endrin ketone	ND	4.3	23	23	ug/kg	1	
gamma-BHC (Lindane)	ND	12	23	23	ug/kg	1	
gamma-Chlordane	ND	9.3	23	23	ug/kg	1	
Heptachlor	ND	13	23	23	ug/kg	1	
Heptachlor epoxide	ND	8.5	23	23	ug/kg	1	
Kepone	ND	210	470	470	ug/kg	1	
Methoxychlor	ND	5.1	23	23	ug/kg	1	
Mirex	ND	7.3	23	23	ug/kg	1	
Oxychlordane	ND	23	23	23	ug/kg	1	
Toxaphene	**1500**	80	700	700	ug/kg	1	
trans-Nonachlor	ND	23	23	23	ug/kg	1	
Surr: Decachlorobiphenyl	*64 %*	Conc:*150*		*21-125*	%		
Surr: Tetrachloro-meta-xylene	*65 %*	Conc:*153*		*18-112*	%		

700018

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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

QUALITY CONTROL SECTION

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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W3E1479 - EPA 8081A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3E1479-BLK1)				Analyzed: 06/04/13 13:16						
2,4'-DDD	ND	2.5	ug/kg							
2,4'-DDE	ND	2.5	ug/kg							
2,4'-DDT	ND	2.5	ug/kg							
4,4´-DDD	ND	2.5	ug/kg							
4,4´-DDE	ND	2.5	ug/kg							
4,4´-DDT	ND	2.5	ug/kg							
Aldrin	ND	2.5	ug/kg							
alpha-BHC	ND	2.5	ug/kg							
alpha-Chlordane	ND	2.5	ug/kg							
beta-BHC	ND	2.5	ug/kg							
Chlordane (tech)	ND	50	ug/kg							
cis-Nonachlor	ND	2.5	ug/kg							
DCPA	ND	2.5	ug/kg							
delta-BHC	ND	2.5	ug/kg							
Dieldrin	ND	2.5	ug/kg							
Endosulfan I	ND	2.5	ug/kg							
Endosulfan II	ND	2.5	ug/kg							
Endosulfan sulfate	ND	2.5	ug/kg							
Endrin	ND	2.5	ug/kg							
Endrin aldehyde	ND	2.5	ug/kg							
Endrin ketone	ND	2.5	ug/kg							
gamma-BHC (Lindane)	ND	2.5	ug/kg							
gamma-Chlordane	ND	2.5	ug/kg							
Heptachlor	ND	2.5	ug/kg							
Heptachlor epoxide	ND	2.5	ug/kg							
Kepone	ND	50	ug/kg							
Methoxychlor	ND	2.5	ug/kg							
Mirex	ND	2.5	ug/kg							
Oxychlordane	ND	2.5	ug/kg							
Toxaphene	ND	75	ug/kg							
trans-Nonachlor	ND	2.5	ug/kg							
Surr: Decachlorobiphenyl	*14.7*		*ug/kg*	*25.0*		*59*	*21-125*			
Surr: Tetrachloro-meta-xylene	*16.5*		*ug/kg*	*25.0*		*66*	*18-112*			
LCS (W3E1479-BS1)				Analyzed: 06/04/13 13:44						
4,4´-DDD	21.1	2.5	ug/kg	25.0		85	48-126	NR		
4,4´-DDE	20.1	2.5	ug/kg	25.0		80	48-121	NR		
4,4´-DDT	21.4	2.5	ug/kg	25.0		85	45-146	NR		
Aldrin	19.8	2.5	ug/kg	25.0		79	57-137	NR		
alpha-BHC	20.3	2.5	ug/kg	25.0		81	64-131	NR		
beta-BHC	20.6	2.5	ug/kg	25.0		82	48-126	NR		
Chlordane (tech)	ND	50	ug/kg				41-163			
delta-BHC	19.4	2.5	ug/kg	25.0		78	30-124	NR		
Dieldrin	21.2	2.5	ug/kg	25.0		85	49-123	NR		

700020

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W3E1479 - EPA 8081A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3E1479-BS1)				Analyzed: 06/04/13 13:44						
Endosulfan I	16.1	2.5	ug/kg	25.0		64	14-101	NR		
Endosulfan II	18.1	2.5	ug/kg	25.0		72	33-146	NR		
Endosulfan sulfate	22.6	2.5	ug/kg	25.0		90	33-146	NR		
Endrin	22.0	2.5	ug/kg	25.0		88	39-144	NR		
Endrin aldehyde	17.5	2.5	ug/kg	25.0		70	23-104	NR		
gamma-BHC (Lindane)	20.3	2.5	ug/kg	25.0		81	43-114	NR		
Heptachlor	20.4	2.5	ug/kg	25.0		82	48-125	NR		
Heptachlor epoxide	21.6	2.5	ug/kg	25.0		87	47-121	NR		
Methoxychlor	21.7	2.5	ug/kg	25.0		87	47-157	NR		
Toxaphene	ND	75	ug/kg				48-164			
Surr: Decachlorobiphenyl	*15.3*		*ug/kg*	*25.0*		*61*	*21-125*			
Surr: Tetrachloro-meta-xylene	*18.1*		*ug/kg*	*25.0*		*72*	*18-112*			
Matrix Spike (W3E1479-MS1)	**Source: 3E30013-01**			Analyzed: 06/04/13 14:12						
4,4'-DDD	210	24	ug/kg	240	ND	87	21-119	NR		
4,4'-DDE	199	24	ug/kg	240	ND	83	18-122	NR		
4,4'-DDT	208	24	ug/kg	240	ND	87	12-141	NR		
Aldrin	173	24	ug/kg	240	ND	72	24-173	NR		
alpha-BHC	175	24	ug/kg	240	ND	73	44-146	NR		
beta-BHC	189	24	ug/kg	240	ND	78	7-156	NR		
delta-BHC	185	24	ug/kg	240	ND	77	11-147	NR		
Dieldrin	202	24	ug/kg	240	ND	84	23-123	NR		
Endosulfan I	124	24	ug/kg	240	ND	52	0.1-94	NR		
Endosulfan II	150	24	ug/kg	240	ND	62	0.1-109	NR		
Endosulfan sulfate	215	24	ug/kg	240	ND	89	0.1-152	NR		
Endrin	206	24	ug/kg	240	ND	86	22-147	NR		
Endrin aldehyde	179	24	ug/kg	240	ND	74	0.1-114	NR		
gamma-BHC (Lindane)	178	24	ug/kg	240	ND	74	16-121	NR		
Heptachlor	180	24	ug/kg	240	ND	75	4-141	NR		
Heptachlor epoxide	198	24	ug/kg	240	ND	82	17-135	NR		
Methoxychlor	211	24	ug/kg	240	ND	88	14-153	NR		
Surr: Decachlorobiphenyl	*155*		*ug/kg*	*240*		*64*	*21-125*			
Surr: Tetrachloro-meta-xylene	*153*		*ug/kg*	*240*		*64*	*18-112*			
Matrix Spike Dup (W3E1479-MSD1)	**Source: 3E30013-01**			Analyzed: 06/04/13 14:40						
4,4'-DDD	215	24	ug/kg	243	ND	88	21-119	2	25	
4,4'-DDE	203	24	ug/kg	243	ND	84	18-122	2	25	
4,4'-DDT	220	24	ug/kg	243	ND	91	12-141	6	25	
Aldrin	185	24	ug/kg	243	ND	76	24-173	7	25	
alpha-BHC	187	24	ug/kg	243	ND	77	44-146	6	25	
beta-BHC	200	24	ug/kg	243	ND	83	7-156	6	25	
delta-BHC	193	24	ug/kg	243	ND	79	11-147	4	25	
Dieldrin	209	24	ug/kg	243	ND	86	23-123	4	25	
Endosulfan I	116	24	ug/kg	243	ND	48	0.1-94	7	25	
Endosulfan II	135	24	ug/kg	243	ND	56	0.1-109	10	25	

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Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W3E1479 - EPA 8081A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W3E1479-MSD1)	**Source: 3E30013-01**			Analyzed: 06/04/13 14:40						
Endosulfan sulfate	235	24	ug/kg	243	ND	97	0.1-152	9	25	
Endrin	214	24	ug/kg	243	ND	88	22-147	4	25	
Endrin aldehyde	188	24	ug/kg	243	ND	77	0.1-114	5	25	
gamma-BHC (Lindane)	189	24	ug/kg	243	ND	78	16-121	6	25	
Heptachlor	192	24	ug/kg	243	ND	79	4-141	7	25	
Heptachlor epoxide	208	24	ug/kg	243	ND	86	17-135	5	25	
Methoxychlor	235	24	ug/kg	243	ND	97	14-153	11	25	
Surr: Decachlorobiphenyl	*160*		*ug/kg*	*243*		*66*	*21-125*			
Surr: Tetrachloro-meta-xylene	*163*		*ug/kg*	*243*		*67*	*18-112*			

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30013
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/13/13 15:54

Notes and Definitions

M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit
NR	Not Reportable

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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ATTACHMENT #7

Semi Volatile Organic Compounds
(SVOCs)

EPA METHOD 8270C

CERTIFICATE OF ANALYSIS

Client:	LADWP - Environmental Laboratory 1630 North Main Street, Bldg. 7, Rm 311 Los Angeles, CA 90012	**Report Date:**	06/05/13 16:04
		Received Date:	05/30/13 09:50
		Turn Around:	5 workdays
Attention:	Kevin Han	**Work Order #:**	3E30014
Phone:	213-367-7267		49067-3, COC #13-1321,26
Fax:	(213) 367-7285	**Client Project:**	7600 Tyrone Ave,COC #13-1321,26, WO#

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Kevin Han :

Enclosed are the results of analyses for samples received 05/30/13 09:50 with the Chain of Custody document. The samples were received in good condition, at 2.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Kim G Tu
Project Manager

800001

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
LN06205	Client		3E30014-01	Solid	05/28/13 08:08
LN06207	Client		3E30014-02	Solid	05/28/13 08:04
LN06214	Client		3E30014-03	Solid	05/28/13 08:50
LN06216	Client		3E30014-04	Solid	05/28/13 08:54
LN06217	Client		3E30014-05	Solid	05/28/13 09:00
LN06219	Client		3E30014-06	Solid	05/28/13 09:04
LN06229	Client		3E30014-07	Solid	05/28/13 09:40
LN06231	Client		3E30014-08	Solid	05/28/13 09:44
LN06241	Client		3E30014-09	Solid	05/28/13 10:20
LN06243	Client		3E30014-10	Solid	05/28/13 10:24
LN06259	Client		3E30014-11	Solid	05/28/13 11:30
LN06261	Client		3E30014-12	Solid	05/28/13 11:34
LN06329	Client		3E30014-13	Solid	05/29/13 08:30
LN06331	Client		3E30014-14	Solid	05/29/13 08:34
LN06335	Client		3E30014-15	Solid	05/29/13 09:00
LN06337	Client		3E30014-16	Solid	05/29/13 09:04
LN06338	Client		3E30014-17	Solid	05/29/13 09:06
LN06340	Client		3E30014-18	Solid	05/29/13 09:10
LN06341	Client		3E30014-19	Solid	05/29/13 09:30
LN06343	Client		3E30014-20	Solid	05/29/13 09:34

ANALYSES

Semivolatile Organic Compounds by GC/MS

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-13 **LN06329**

Sampled: 05/29/13 08:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 01:12 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.080	0.44	0.44	mg/kg	1	
1,2-Dichlorobenzene	ND	0.097	0.44	0.44	mg/kg	1	
1,3-Dichlorobenzene	ND	0.071	0.44	0.44	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.44	0.44	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.097	0.44	0.44	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.097	0.44	0.44	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.44	0.44	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.44	0.44	mg/kg	1	
2,4-Dinitrophenol	ND	3.4	22	22	mg/kg	1	
2,4-Dinitrotoluene	ND	0.088	0.44	0.44	mg/kg	1	
2,6-Dinitrotoluene	ND	0.071	0.44	0.44	mg/kg	1	
2-Chloronaphthalene	ND	0.071	0.44	0.44	mg/kg	1	
2-Chlorophenol	ND	0.088	0.44	0.44	mg/kg	1	
2-Methylnaphthalene	ND	0.080	0.44	0.44	mg/kg	1	
2-Methylphenol	ND	0.11	0.44	0.44	mg/kg	1	
2-Nitroaniline	ND	0.12	0.44	0.44	mg/kg	1	
2-Nitrophenol	ND	0.19	0.44	0.44	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.44	0.44	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.3	2.2	2.2	mg/kg	1	
3-Nitroaniline	ND	0.13	0.44	0.44	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.4	4.4	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.062	0.44	0.44	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.097	0.44	0.44	mg/kg	1	
4-Chloroaniline	ND	0.12	0.44	0.44	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.080	0.44	0.44	mg/kg	1	
4-Nitroaniline	ND	0.12	0.44	0.44	mg/kg	1	
4-Nitrophenol	ND	0.13	0.44	0.44	mg/kg	1	
Acenaphthene	ND	0.080	0.44	0.44	mg/kg	1	
Acenaphthylene	ND	0.080	0.44	0.44	mg/kg	1	
Aniline	ND	0.20	0.44	0.44	mg/kg	1	
Anthracene	ND	0.071	0.44	0.44	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.088	0.44	0.44	mg/kg	1	
Benzidine	ND	1.1	4.4	4.4	mg/kg	1	
Benzo (a) anthracene	ND	0.062	0.44	0.44	mg/kg	1	
Benzo (a) pyrene	ND	0.071	0.44	0.44	mg/kg	1	
Benzo (b) fluoranthene	ND	0.062	0.44	0.44	mg/kg	1	
Benzo (g,h,i) perylene	**0.11**	0.053	0.88	0.88	mg/kg	1	J
Benzo (k) fluoranthene	ND	0.12	0.44	0.44	mg/kg	1	
Benzoic acid	ND	1.7	22	22	mg/kg	1	
Benzyl alcohol	ND	0.12	0.44	0.44	mg/kg	1	

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-13 **LN06329**

Sampled: 05/29/13 08:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 01:12 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.080	0.44	0.44	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.097	0.44	0.44	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.12	0.44	0.44	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.44	0.44	mg/kg	1	
Butyl benzyl phthalate	**0.28**	0.13	0.44	0.44	mg/kg	1	J
Carbazole	ND	0.080	0.44	0.44	mg/kg	1	
Chrysene	ND	0.080	0.44	0.44	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.044	0.88	0.88	mg/kg	1	
Dibenzofuran	ND	0.080	0.44	0.44	mg/kg	1	
Diethyl phthalate	ND	0.053	0.44	0.44	mg/kg	1	
Dimethyl phthalate	ND	0.78	2.2	2.2	mg/kg	1	
Di-n-butyl phthalate	ND	0.071	0.44	0.44	mg/kg	1	
Di-n-octyl phthalate	ND	0.12	0.44	0.44	mg/kg	1	
Fluoranthene	ND	0.097	0.44	0.44	mg/kg	1	
Fluorene	ND	0.062	0.44	0.44	mg/kg	1	
Hexachlorobenzene	ND	0.071	0.44	0.44	mg/kg	1	
Hexachlorobutadiene	ND	0.080	0.44	0.44	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.44	0.44	mg/kg	1	
Hexachloroethane	ND	0.062	0.44	0.44	mg/kg	1	
Indeno (1,2,3-cd) pyrene	**0.15**	0.080	0.88	0.88	mg/kg	1	J
Isophorone	ND	0.088	0.44	0.44	mg/kg	1	
Naphthalene	ND	0.097	0.44	0.44	mg/kg	1	
Nitrobenzene	ND	0.097	0.44	0.44	mg/kg	1	
N-Nitrosodimethylamine	ND	0.080	0.44	0.44	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.080	0.44	0.44	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.062	0.44	0.44	mg/kg	1	
Pentachlorophenol	ND	0.14	0.44	0.44	mg/kg	1	
Phenanthrene	ND	0.071	0.44	0.44	mg/kg	1	
Phenol	ND	0.13	0.44	0.44	mg/kg	1	
Pyrene	ND	0.071	0.44	0.44	mg/kg	1	
Pyridine	ND	0.044	0.88	0.88	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*65 %*	Conc:*28.6*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*74 %*	Conc:*16.4*		*39-100*	%		
Surr: 2-Fluorophenol	*89 %*	Conc:*39.6*		*26-115*	%		
Surr: Nitrobenzene-d5	*76 %*	Conc:*16.8*		*49-105*	%		
Surr: Phenol-d5	*84 %*	Conc:*37.3*		*36-105*	%		
Surr: Terphenyl-d14	*86 %*	Conc:*19.1*		*36-106*	%		

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800004

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-14 **LN06331**

Sampled: 05/29/13 08:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 01:42 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.090	0.50	0.50	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.50	0.50	mg/kg	1	
1,3-Dichlorobenzene	ND	0.080	0.50	0.50	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.50	0.50	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.50	0.50	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2,4-Dinitrophenol	ND	3.8	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.10	0.50	0.50	mg/kg	1	
2,6-Dinitrotoluene	ND	0.080	0.50	0.50	mg/kg	1	
2-Chloronaphthalene	ND	0.080	0.50	0.50	mg/kg	1	
2-Chlorophenol	ND	0.10	0.50	0.50	mg/kg	1	
2-Methylnaphthalene	ND	0.090	0.50	0.50	mg/kg	1	
2-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
2-Nitrophenol	ND	0.22	0.50	0.50	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.50	0.50	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	5.0	5.0	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.070	0.50	0.50	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.50	0.50	mg/kg	1	
4-Chloroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.090	0.50	0.50	mg/kg	1	
4-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Nitrophenol	ND	0.15	0.50	0.50	mg/kg	1	
Acenaphthene	ND	0.090	0.50	0.50	mg/kg	1	
Acenaphthylene	ND	0.090	0.50	0.50	mg/kg	1	
Aniline	ND	0.23	0.50	0.50	mg/kg	1	
Anthracene	ND	0.080	0.50	0.50	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.10	0.50	0.50	mg/kg	1	
Benzidine	ND	1.3	5.0	5.0	mg/kg	1	
Benzo (a) anthracene	ND	0.070	0.50	0.50	mg/kg	1	
Benzo (a) pyrene	ND	0.080	0.50	0.50	mg/kg	1	
Benzo (b) fluoranthene	ND	0.070	0.50	0.50	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.060	1.0	1.0	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.50	0.50	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.50	0.50	mg/kg	1	

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800005

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-14 **LN06331**

Sampled: 05/29/13 08:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 01:42 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.090	0.50	0.50	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.50	0.50	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.50	0.50	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.50	0.50	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.50	0.50	mg/kg	1	
Carbazole	ND	0.090	0.50	0.50	mg/kg	1	
Chrysene	ND	0.090	0.50	0.50	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.050	1.0	1.0	mg/kg	1	
Dibenzofuran	ND	0.090	0.50	0.50	mg/kg	1	
Diethyl phthalate	ND	0.060	0.50	0.50	mg/kg	1	
Dimethyl phthalate	ND	0.88	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.080	0.50	0.50	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.50	0.50	mg/kg	1	
Fluoranthene	ND	0.11	0.50	0.50	mg/kg	1	
Fluorene	ND	0.070	0.50	0.50	mg/kg	1	
Hexachlorobenzene	ND	0.080	0.50	0.50	mg/kg	1	
Hexachlorobutadiene	ND	0.090	0.50	0.50	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.50	0.50	mg/kg	1	
Hexachloroethane	ND	0.070	0.50	0.50	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.090	1.0	1.0	mg/kg	1	
Isophorone	ND	0.10	0.50	0.50	mg/kg	1	
Naphthalene	ND	0.11	0.50	0.50	mg/kg	1	
Nitrobenzene	ND	0.11	0.50	0.50	mg/kg	1	
N-Nitrosodimethylamine	ND	0.090	0.50	0.50	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.090	0.50	0.50	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.070	0.50	0.50	mg/kg	1	
Pentachlorophenol	ND	0.16	0.50	0.50	mg/kg	1	
Phenanthrene	ND	0.080	0.50	0.50	mg/kg	1	
Phenol	ND	0.15	0.50	0.50	mg/kg	1	
Pyrene	ND	0.080	0.50	0.50	mg/kg	1	
Pyridine	ND	0.050	1.0	1.0	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*61 %*	Conc:*30.6*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*73 %*	Conc:*18.0*		*39-100*	%		
Surr: 2-Fluorophenol	*86 %*	Conc:*42.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*75 %*	Conc:*18.8*		*49-105*	%		
Surr: Phenol-d5	*82 %*	Conc:*40.6*		*36-105*	%		
Surr: Terphenyl-d14	*84 %*	Conc:*21.0*		*36-106*	%		

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-15 **LN06335**

Sampled: 05/29/13 09:00 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 02:12 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.089	0.50	0.50	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.50	0.50	mg/kg	1	
1,3-Dichlorobenzene	ND	0.079	0.50	0.50	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.50	0.50	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.50	0.50	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.50	0.50	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2,4-Dinitrophenol	ND	3.8	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.099	0.50	0.50	mg/kg	1	
2,6-Dinitrotoluene	ND	0.079	0.50	0.50	mg/kg	1	
2-Chloronaphthalene	ND	0.079	0.50	0.50	mg/kg	1	
2-Chlorophenol	ND	0.099	0.50	0.50	mg/kg	1	
2-Methylnaphthalene	ND	0.089	0.50	0.50	mg/kg	1	
2-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
2-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
2-Nitrophenol	ND	0.22	0.50	0.50	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.50	0.50	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.50	0.50	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	5.0	5.0	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.50	0.50	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.50	0.50	mg/kg	1	
4-Chloroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.089	0.50	0.50	mg/kg	1	
4-Nitroaniline	ND	0.13	0.50	0.50	mg/kg	1	
4-Nitrophenol	ND	0.15	0.50	0.50	mg/kg	1	
Acenaphthene	ND	0.089	0.50	0.50	mg/kg	1	
Acenaphthylene	ND	0.089	0.50	0.50	mg/kg	1	
Aniline	ND	0.23	0.50	0.50	mg/kg	1	
Anthracene	ND	0.079	0.50	0.50	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.099	0.50	0.50	mg/kg	1	
Benzidine	ND	1.2	5.0	5.0	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.50	0.50	mg/kg	1	
Benzo (a) pyrene	ND	0.079	0.50	0.50	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.50	0.50	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.99	0.99	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.50	0.50	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.50	0.50	mg/kg	1	

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-15 **LN06335**

Sampled: 05/29/13 09:00 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 02:12 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.089	0.50	0.50	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.50	0.50	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.50	0.50	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.50	0.50	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.50	0.50	mg/kg	1	
Carbazole	ND	0.089	0.50	0.50	mg/kg	1	
Chrysene	ND	0.089	0.50	0.50	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.050	0.99	0.99	mg/kg	1	
Dibenzofuran	ND	0.089	0.50	0.50	mg/kg	1	
Diethyl phthalate	ND	0.059	0.50	0.50	mg/kg	1	
Dimethyl phthalate	ND	0.87	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.079	0.50	0.50	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.50	0.50	mg/kg	1	
Fluoranthene	ND	0.11	0.50	0.50	mg/kg	1	
Fluorene	ND	0.069	0.50	0.50	mg/kg	1	
Hexachlorobenzene	ND	0.079	0.50	0.50	mg/kg	1	
Hexachlorobutadiene	ND	0.089	0.50	0.50	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.50	0.50	mg/kg	1	
Hexachloroethane	ND	0.069	0.50	0.50	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.089	0.99	0.99	mg/kg	1	
Isophorone	ND	0.099	0.50	0.50	mg/kg	1	
Naphthalene	ND	0.11	0.50	0.50	mg/kg	1	
Nitrobenzene	ND	0.11	0.50	0.50	mg/kg	1	
N-Nitrosodimethylamine	ND	0.089	0.50	0.50	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.089	0.50	0.50	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.50	0.50	mg/kg	1	
Pentachlorophenol	ND	0.16	0.50	0.50	mg/kg	1	
Phenanthrene	ND	0.079	0.50	0.50	mg/kg	1	
Phenol	ND	0.15	0.50	0.50	mg/kg	1	
Pyrene	ND	0.079	0.50	0.50	mg/kg	1	
Pyridine	ND	0.050	0.99	0.99	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*62 %*	Conc:*30.6*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*74 %*	Conc:*18.3*		*39-100*	%		
Surr: 2-Fluorophenol	*86 %*	Conc:*42.8*		*26-115*	%		
Surr: Nitrobenzene-d5	*75 %*	Conc:*18.5*		*49-105*	%		
Surr: Phenol-d5	*82 %*	Conc:*40.4*		*36-105*	%		
Surr: Terphenyl-d14	*82 %*	Conc:*20.2*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-16 **LN06337**

Sampled: 05/29/13 09:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 02:42 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.088	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.098	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.098	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.088	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.088	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.088	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.088	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.078	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.098	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.98	0.98	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-16 **LN06337**

Sampled: 05/29/13 09:04 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C Batch: W3F0001 Prepared: 06/01/13 09:40 Analyzed: 06/05/13 02:42 Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.088	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	ND	0.15	0.49	0.49	mg/kg	1	
Carbazole	ND	0.088	0.49	0.49	mg/kg	1	
Chrysene	ND	0.088	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.98	0.98	mg/kg	1	
Dibenzofuran	ND	0.088	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.86	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.078	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.088	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.088	0.98	0.98	mg/kg	1	
Isophorone	ND	0.098	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.078	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.98	0.98	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*56 %*	Conc:*27.5*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*67 %*	Conc:*16.5*		*39-100*	%		
Surr: 2-Fluorophenol	*78 %*	Conc:*38.3*		*26-115*	%		
Surr: Nitrobenzene-d5	*69 %*	Conc:*16.9*		*49-105*	%		
Surr: Phenol-d5	*75 %*	Conc:*36.6*		*36-105*	%		
Surr: Terphenyl-d14	*73 %*	Conc:*18.0*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-17 **LN06338**

Sampled: 05/29/13 09:06 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 03:13 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.087	0.48	0.48	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.48	0.48	mg/kg	1	
1,3-Dichlorobenzene	ND	0.077	0.48	0.48	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.48	0.48	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.48	0.48	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.48	0.48	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.48	0.48	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.48	0.48	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	24	24	mg/kg	1	
2,4-Dinitrotoluene	ND	0.097	0.48	0.48	mg/kg	1	
2,6-Dinitrotoluene	ND	0.077	0.48	0.48	mg/kg	1	
2-Chloronaphthalene	ND	0.077	0.48	0.48	mg/kg	1	
2-Chlorophenol	ND	0.097	0.48	0.48	mg/kg	1	
2-Methylnaphthalene	ND	0.087	0.48	0.48	mg/kg	1	
2-Methylphenol	ND	0.12	0.48	0.48	mg/kg	1	
2-Nitroaniline	ND	0.13	0.48	0.48	mg/kg	1	
2-Nitrophenol	ND	0.21	0.48	0.48	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.48	0.48	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.4	2.4	mg/kg	1	
3-Nitroaniline	ND	0.14	0.48	0.48	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.8	4.8	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.068	0.48	0.48	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.48	0.48	mg/kg	1	
4-Chloroaniline	ND	0.13	0.48	0.48	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.087	0.48	0.48	mg/kg	1	
4-Nitroaniline	ND	0.13	0.48	0.48	mg/kg	1	
4-Nitrophenol	ND	0.14	0.48	0.48	mg/kg	1	
Acenaphthene	ND	0.087	0.48	0.48	mg/kg	1	
Acenaphthylene	ND	0.087	0.48	0.48	mg/kg	1	
Aniline	ND	0.22	0.48	0.48	mg/kg	1	
Anthracene	ND	0.077	0.48	0.48	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.097	0.48	0.48	mg/kg	1	
Benzidine	ND	1.2	4.8	4.8	mg/kg	1	
Benzo (a) anthracene	ND	0.068	0.48	0.48	mg/kg	1	
Benzo (a) pyrene	ND	0.077	0.48	0.48	mg/kg	1	
Benzo (b) fluoranthene	ND	0.068	0.48	0.48	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.058	0.97	0.97	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.48	0.48	mg/kg	1	
Benzoic acid	ND	1.8	24	24	mg/kg	1	
Benzyl alcohol	ND	0.14	0.48	0.48	mg/kg	1	

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1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-17 **LN06338**

Sampled: 05/29/13 09:06 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 03:13 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.087	0.48	0.48	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.48	0.48	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.48	0.48	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.48	0.48	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.48	0.48	mg/kg	1	
Carbazole	ND	0.087	0.48	0.48	mg/kg	1	
Chrysene	ND	0.087	0.48	0.48	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.048	0.97	0.97	mg/kg	1	
Dibenzofuran	ND	0.087	0.48	0.48	mg/kg	1	
Diethyl phthalate	ND	0.058	0.48	0.48	mg/kg	1	
Dimethyl phthalate	ND	0.85	2.4	2.4	mg/kg	1	
Di-n-butyl phthalate	ND	0.077	0.48	0.48	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.48	0.48	mg/kg	1	
Fluoranthene	ND	0.11	0.48	0.48	mg/kg	1	
Fluorene	ND	0.068	0.48	0.48	mg/kg	1	
Hexachlorobenzene	ND	0.077	0.48	0.48	mg/kg	1	
Hexachlorobutadiene	ND	0.087	0.48	0.48	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.48	0.48	mg/kg	1	
Hexachloroethane	ND	0.068	0.48	0.48	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.087	0.97	0.97	mg/kg	1	
Isophorone	ND	0.097	0.48	0.48	mg/kg	1	
Naphthalene	ND	0.11	0.48	0.48	mg/kg	1	
Nitrobenzene	ND	0.11	0.48	0.48	mg/kg	1	
N-Nitrosodimethylamine	ND	0.087	0.48	0.48	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.087	0.48	0.48	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.068	0.48	0.48	mg/kg	1	
Pentachlorophenol	ND	0.15	0.48	0.48	mg/kg	1	
Phenanthrene	ND	0.077	0.48	0.48	mg/kg	1	
Phenol	ND	0.14	0.48	0.48	mg/kg	1	
Pyrene	ND	0.077	0.48	0.48	mg/kg	1	
Pyridine	ND	0.048	0.97	0.97	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*55 %*	Conc:*26.6*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*62 %*	Conc:*14.9*		*39-100*	%		
Surr: 2-Fluorophenol	*72 %*	Conc:*34.9*		*26-115*	%		
Surr: Nitrobenzene-d5	*65 %*	Conc:*15.7*		*49-105*	%		
Surr: Phenol-d5	*70 %*	Conc:*33.9*		*36-105*	%		
Surr: Terphenyl-d14	*70 %*	Conc:*16.8*		*36-106*	%		

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800012

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-18 **LN06340**

Sampled: 05/29/13 09:10 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 03:43 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.087	0.48	0.48	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.48	0.48	mg/kg	1	
1,3-Dichlorobenzene	ND	0.077	0.48	0.48	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.48	0.48	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.48	0.48	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.48	0.48	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.48	0.48	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.48	0.48	mg/kg	1	
2,4-Dinitrophenol	ND	3.6	24	24	mg/kg	1	
2,4-Dinitrotoluene	ND	0.096	0.48	0.48	mg/kg	1	
2,6-Dinitrotoluene	ND	0.077	0.48	0.48	mg/kg	1	
2-Chloronaphthalene	ND	0.077	0.48	0.48	mg/kg	1	
2-Chlorophenol	ND	0.096	0.48	0.48	mg/kg	1	
2-Methylnaphthalene	ND	0.087	0.48	0.48	mg/kg	1	
2-Methylphenol	ND	0.12	0.48	0.48	mg/kg	1	
2-Nitroaniline	ND	0.12	0.48	0.48	mg/kg	1	
2-Nitrophenol	ND	0.21	0.48	0.48	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.48	0.48	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.4	2.4	mg/kg	1	
3-Nitroaniline	ND	0.14	0.48	0.48	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.8	4.8	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.067	0.48	0.48	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.48	0.48	mg/kg	1	
4-Chloroaniline	ND	0.12	0.48	0.48	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.087	0.48	0.48	mg/kg	1	
4-Nitroaniline	ND	0.12	0.48	0.48	mg/kg	1	
4-Nitrophenol	ND	0.14	0.48	0.48	mg/kg	1	
Acenaphthene	ND	0.087	0.48	0.48	mg/kg	1	
Acenaphthylene	ND	0.087	0.48	0.48	mg/kg	1	
Aniline	ND	0.22	0.48	0.48	mg/kg	1	
Anthracene	ND	0.077	0.48	0.48	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.096	0.48	0.48	mg/kg	1	
Benzidine	ND	1.2	4.8	4.8	mg/kg	1	
Benzo (a) anthracene	ND	0.067	0.48	0.48	mg/kg	1	
Benzo (a) pyrene	ND	0.077	0.48	0.48	mg/kg	1	
Benzo (b) fluoranthene	ND	0.067	0.48	0.48	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.058	0.96	0.96	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.48	0.48	mg/kg	1	
Benzoic acid	ND	1.8	24	24	mg/kg	1	
Benzyl alcohol	ND	0.13	0.48	0.48	mg/kg	1	

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-18 **LN06340**

Sampled: 05/29/13 09:10 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 03:43 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.087	0.48	0.48	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.48	0.48	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.48	0.48	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.48	0.48	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.48	0.48	mg/kg	1	
Carbazole	ND	0.087	0.48	0.48	mg/kg	1	
Chrysene	ND	0.087	0.48	0.48	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.048	0.96	0.96	mg/kg	1	
Dibenzofuran	ND	0.087	0.48	0.48	mg/kg	1	
Diethyl phthalate	ND	0.058	0.48	0.48	mg/kg	1	
Dimethyl phthalate	ND	0.85	2.4	2.4	mg/kg	1	
Di-n-butyl phthalate	ND	0.077	0.48	0.48	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.48	0.48	mg/kg	1	
Fluoranthene	ND	0.11	0.48	0.48	mg/kg	1	
Fluorene	ND	0.067	0.48	0.48	mg/kg	1	
Hexachlorobenzene	ND	0.077	0.48	0.48	mg/kg	1	
Hexachlorobutadiene	ND	0.087	0.48	0.48	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.48	0.48	mg/kg	1	
Hexachloroethane	ND	0.067	0.48	0.48	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.087	0.96	0.96	mg/kg	1	
Isophorone	ND	0.096	0.48	0.48	mg/kg	1	
Naphthalene	ND	0.11	0.48	0.48	mg/kg	1	
Nitrobenzene	ND	0.11	0.48	0.48	mg/kg	1	
N-Nitrosodimethylamine	ND	0.087	0.48	0.48	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.087	0.48	0.48	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.067	0.48	0.48	mg/kg	1	
Pentachlorophenol	ND	0.15	0.48	0.48	mg/kg	1	
Phenanthrene	ND	0.077	0.48	0.48	mg/kg	1	
Phenol	ND	0.14	0.48	0.48	mg/kg	1	
Pyrene	ND	0.077	0.48	0.48	mg/kg	1	
Pyridine	ND	0.048	0.96	0.96	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*56 %*	Conc:*26.9*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*62 %*	Conc:*14.8*		*39-100*	%		
Surr: 2-Fluorophenol	*72 %*	Conc:*34.5*		*26-115*	%		
Surr: Nitrobenzene-d5	*63 %*	Conc:*15.2*		*49-105*	%		
Surr: Phenol-d5	*69 %*	Conc:*33.0*		*36-105*	%		
Surr: Terphenyl-d14	*91 %*	Conc:*21.8*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-19 **LN06341**

Sampled: 05/29/13 09:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 04:13 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.081	0.45	0.45	mg/kg	1	
1,2-Dichlorobenzene	ND	0.10	0.45	0.45	mg/kg	1	
1,3-Dichlorobenzene	ND	0.072	0.45	0.45	mg/kg	1	
1,4-Dichlorobenzene	ND	0.11	0.45	0.45	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.10	0.45	0.45	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.10	0.45	0.45	mg/kg	1	
2,4-Dichlorophenol	ND	0.12	0.45	0.45	mg/kg	1	
2,4-Dimethylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2,4-Dinitrophenol	ND	3.4	23	23	mg/kg	1	
2,4-Dinitrotoluene	ND	0.090	0.45	0.45	mg/kg	1	
2,6-Dinitrotoluene	ND	0.072	0.45	0.45	mg/kg	1	
2-Chloronaphthalene	ND	0.072	0.45	0.45	mg/kg	1	
2-Chlorophenol	ND	0.090	0.45	0.45	mg/kg	1	
2-Methylnaphthalene	ND	0.081	0.45	0.45	mg/kg	1	
2-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
2-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
2-Nitrophenol	ND	0.20	0.45	0.45	mg/kg	1	
3 & 4-Methylphenol	ND	0.11	0.45	0.45	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.4	2.3	2.3	mg/kg	1	
3-Nitroaniline	ND	0.14	0.45	0.45	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.4	4.5	4.5	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.063	0.45	0.45	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.10	0.45	0.45	mg/kg	1	
4-Chloroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.081	0.45	0.45	mg/kg	1	
4-Nitroaniline	ND	0.12	0.45	0.45	mg/kg	1	
4-Nitrophenol	ND	0.14	0.45	0.45	mg/kg	1	
Acenaphthene	ND	0.081	0.45	0.45	mg/kg	1	
Acenaphthylene	ND	0.081	0.45	0.45	mg/kg	1	
Aniline	ND	0.21	0.45	0.45	mg/kg	1	
Anthracene	ND	0.072	0.45	0.45	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.090	0.45	0.45	mg/kg	1	
Benzidine	ND	1.1	4.5	4.5	mg/kg	1	
Benzo (a) anthracene	ND	0.063	0.45	0.45	mg/kg	1	
Benzo (a) pyrene	ND	0.072	0.45	0.45	mg/kg	1	
Benzo (b) fluoranthene	ND	0.063	0.45	0.45	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.054	0.90	0.90	mg/kg	1	
Benzo (k) fluoranthene	ND	0.12	0.45	0.45	mg/kg	1	
Benzoic acid	ND	1.7	23	23	mg/kg	1	
Benzyl alcohol	ND	0.13	0.45	0.45	mg/kg	1	

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800015

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-19 **LN06341**

Sampled: 05/29/13 09:30 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 04:13 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.081	0.45	0.45	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.10	0.45	0.45	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.13	0.45	0.45	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.11	0.45	0.45	mg/kg	1	
Butyl benzyl phthalate	ND	0.14	0.45	0.45	mg/kg	1	
Carbazole	ND	0.081	0.45	0.45	mg/kg	1	
Chrysene	ND	0.081	0.45	0.45	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.045	0.90	0.90	mg/kg	1	
Dibenzofuran	ND	0.081	0.45	0.45	mg/kg	1	
Diethyl phthalate	ND	0.054	0.45	0.45	mg/kg	1	
Dimethyl phthalate	ND	0.80	2.3	2.3	mg/kg	1	
Di-n-butyl phthalate	ND	0.072	0.45	0.45	mg/kg	1	
Di-n-octyl phthalate	ND	0.13	0.45	0.45	mg/kg	1	
Fluoranthene	ND	0.10	0.45	0.45	mg/kg	1	
Fluorene	ND	0.063	0.45	0.45	mg/kg	1	
Hexachlorobenzene	ND	0.072	0.45	0.45	mg/kg	1	
Hexachlorobutadiene	ND	0.081	0.45	0.45	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.11	0.45	0.45	mg/kg	1	
Hexachloroethane	ND	0.063	0.45	0.45	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.081	0.90	0.90	mg/kg	1	
Isophorone	ND	0.090	0.45	0.45	mg/kg	1	
Naphthalene	ND	0.10	0.45	0.45	mg/kg	1	
Nitrobenzene	ND	0.10	0.45	0.45	mg/kg	1	
N-Nitrosodimethylamine	ND	0.081	0.45	0.45	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.081	0.45	0.45	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.063	0.45	0.45	mg/kg	1	
Pentachlorophenol	ND	0.14	0.45	0.45	mg/kg	1	
Phenanthrene	ND	0.072	0.45	0.45	mg/kg	1	
Phenol	ND	0.14	0.45	0.45	mg/kg	1	
Pyrene	ND	0.072	0.45	0.45	mg/kg	1	
Pyridine	ND	0.045	0.90	0.90	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*66 %*	Conc:*29.8*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*74 %*	Conc:*16.7*		*39-100*	%		
Surr: 2-Fluorophenol	*88 %*	Conc:*40.0*		*26-115*	%		
Surr: Nitrobenzene-d5	*75 %*	Conc:*16.9*		*49-105*	%		
Surr: Phenol-d5	*81 %*	Conc:*36.9*		*36-105*	%		
Surr: Terphenyl-d14	*83 %*	Conc:*18.7*		*36-106*	%		

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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-20 **LN06343**

Sampled: 05/29/13 09:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 04:44 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
1,2,4-Trichlorobenzene	ND	0.088	0.49	0.49	mg/kg	1	
1,2-Dichlorobenzene	ND	0.11	0.49	0.49	mg/kg	1	
1,3-Dichlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
1,4-Dichlorobenzene	ND	0.12	0.49	0.49	mg/kg	1	
2,4,5-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4,6-Trichlorophenol	ND	0.11	0.49	0.49	mg/kg	1	
2,4-Dichlorophenol	ND	0.13	0.49	0.49	mg/kg	1	
2,4-Dimethylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2,4-Dinitrophenol	ND	3.7	25	25	mg/kg	1	
2,4-Dinitrotoluene	ND	0.098	0.49	0.49	mg/kg	1	
2,6-Dinitrotoluene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chloronaphthalene	ND	0.078	0.49	0.49	mg/kg	1	
2-Chlorophenol	ND	0.098	0.49	0.49	mg/kg	1	
2-Methylnaphthalene	ND	0.088	0.49	0.49	mg/kg	1	
2-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
2-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
2-Nitrophenol	ND	0.22	0.49	0.49	mg/kg	1	
3 & 4-Methylphenol	ND	0.12	0.49	0.49	mg/kg	1	
3,3'-Dichlorobenzidine	ND	1.5	2.5	2.5	mg/kg	1	
3-Nitroaniline	ND	0.15	0.49	0.49	mg/kg	1	
4,6-Dinitro-2-methylphenol	ND	1.5	4.9	4.9	mg/kg	1	
4-Bromophenyl phenyl ether	ND	0.069	0.49	0.49	mg/kg	1	
4-Chloro-3-methylphenol	ND	0.11	0.49	0.49	mg/kg	1	
4-Chloroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Chlorophenyl phenyl ether	ND	0.088	0.49	0.49	mg/kg	1	
4-Nitroaniline	ND	0.13	0.49	0.49	mg/kg	1	
4-Nitrophenol	ND	0.15	0.49	0.49	mg/kg	1	
Acenaphthene	ND	0.088	0.49	0.49	mg/kg	1	
Acenaphthylene	ND	0.088	0.49	0.49	mg/kg	1	
Aniline	ND	0.23	0.49	0.49	mg/kg	1	
Anthracene	ND	0.078	0.49	0.49	mg/kg	1	
Azobenzene/1,2-Diphenylhydrazine	ND	0.098	0.49	0.49	mg/kg	1	
Benzidine	ND	1.2	4.9	4.9	mg/kg	1	
Benzo (a) anthracene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (a) pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Benzo (b) fluoranthene	ND	0.069	0.49	0.49	mg/kg	1	
Benzo (g,h,i) perylene	ND	0.059	0.98	0.98	mg/kg	1	
Benzo (k) fluoranthene	ND	0.13	0.49	0.49	mg/kg	1	
Benzoic acid	ND	1.9	25	25	mg/kg	1	
Benzyl alcohol	ND	0.14	0.49	0.49	mg/kg	1	

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

3E30014-20 **LN06343**

Sampled: 05/29/13 09:34 **Sampled By:** Client **Matrix:** Solid

Semivolatile Organic Compounds by GC/MS

Method: EPA 8270C | Batch: W3F0001 | Prepared: 06/01/13 09:40 | Analyzed: 06/05/13 04:44 | Analyst: abj

Analyte	Result	MDL	MRL	ML	Units	Dilution	Qualifier
Bis(2-chloroethoxy)methane	ND	0.088	0.49	0.49	mg/kg	1	
Bis(2-chloroethyl)ether	ND	0.11	0.49	0.49	mg/kg	1	
Bis(2-chloroisopropyl)ether	ND	0.14	0.49	0.49	mg/kg	1	
Bis(2-ethylhexyl)phthalate	ND	0.12	0.49	0.49	mg/kg	1	
Butyl benzyl phthalate	**0.29**	0.15	0.49	0.49	mg/kg	1	J
Carbazole	ND	0.088	0.49	0.49	mg/kg	1	
Chrysene	ND	0.088	0.49	0.49	mg/kg	1	
Dibenzo (a,h) anthracene	ND	0.049	0.98	0.98	mg/kg	1	
Dibenzofuran	ND	0.088	0.49	0.49	mg/kg	1	
Diethyl phthalate	ND	0.059	0.49	0.49	mg/kg	1	
Dimethyl phthalate	ND	0.86	2.5	2.5	mg/kg	1	
Di-n-butyl phthalate	ND	0.078	0.49	0.49	mg/kg	1	
Di-n-octyl phthalate	ND	0.14	0.49	0.49	mg/kg	1	
Fluoranthene	ND	0.11	0.49	0.49	mg/kg	1	
Fluorene	ND	0.069	0.49	0.49	mg/kg	1	
Hexachlorobenzene	ND	0.078	0.49	0.49	mg/kg	1	
Hexachlorobutadiene	ND	0.088	0.49	0.49	mg/kg	1	
Hexachlorocyclopentadiene	ND	0.12	0.49	0.49	mg/kg	1	
Hexachloroethane	ND	0.069	0.49	0.49	mg/kg	1	
Indeno (1,2,3-cd) pyrene	ND	0.088	0.98	0.98	mg/kg	1	
Isophorone	ND	0.098	0.49	0.49	mg/kg	1	
Naphthalene	ND	0.11	0.49	0.49	mg/kg	1	
Nitrobenzene	ND	0.11	0.49	0.49	mg/kg	1	
N-Nitrosodimethylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodi-n-propylamine	ND	0.088	0.49	0.49	mg/kg	1	
N-Nitrosodiphenylamine	ND	0.069	0.49	0.49	mg/kg	1	
Pentachlorophenol	ND	0.16	0.49	0.49	mg/kg	1	
Phenanthrene	ND	0.078	0.49	0.49	mg/kg	1	
Phenol	ND	0.15	0.49	0.49	mg/kg	1	
Pyrene	ND	0.078	0.49	0.49	mg/kg	1	
Pyridine	ND	0.049	0.98	0.98	mg/kg	1	
Surr: 2,4,6-Tribromophenol	*59 %*	Conc:*28.9*		*40-97*	%		
Surr: 2-Fluorobiphenyl	*67 %*	Conc:*16.5*		*39-100*	%		
Surr: 2-Fluorophenol	*83 %*	Conc:*40.5*		*26-115*	%		
Surr: Nitrobenzene-d5	*71 %*	Conc:*17.4*		*49-105*	%		
Surr: Phenol-d5	*77 %*	Conc:*37.6*		*36-105*	%		
Surr: Terphenyl-d14	*73 %*	Conc:*17.9*		*36-106*	%		

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

QUALITY CONTROL SECTION

6000 9

LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3F0001-BLK1)				Analyzed: 06/04/13 14:03						
1,2,4-Trichlorobenzene	ND	0.050	mg/kg							
1,2-Dichlorobenzene	ND	0.050	mg/kg							
1,3-Dichlorobenzene	ND	0.050	mg/kg							
1,4-Dichlorobenzene	ND	0.050	mg/kg							
2,4,5-Trichlorophenol	ND	0.050	mg/kg							
2,4,6-Trichlorophenol	ND	0.050	mg/kg							
2,4-Dichlorophenol	ND	0.050	mg/kg							
2,4-Dimethylphenol	ND	0.050	mg/kg							
2,4-Dinitrophenol	ND	2.5	mg/kg							
2,4-Dinitrotoluene	ND	0.050	mg/kg							
2,6-Dinitrotoluene	ND	0.050	mg/kg							
2-Chloronaphthalene	ND	0.050	mg/kg							
2-Chlorophenol	ND	0.050	mg/kg							
2-Methylnaphthalene	ND	0.050	mg/kg							
2-Methylphenol	ND	0.050	mg/kg							
2-Nitroaniline	ND	0.050	mg/kg							
2-Nitrophenol	ND	0.050	mg/kg							
3 & 4-Methylphenol	ND	0.050	mg/kg							
3,3'-Dichlorobenzidine	ND	0.25	mg/kg							
3-Nitroaniline	ND	0.050	mg/kg							
4,6-Dinitro-2-methylphenol	ND	0.50	mg/kg							
4-Bromophenyl phenyl ether	ND	0.050	mg/kg							
4-Chloro-3-methylphenol	ND	0.050	mg/kg							
4-Chloroaniline	ND	0.050	mg/kg							
4-Chlorophenyl phenyl ether	ND	0.050	mg/kg							
4-Nitroaniline	ND	0.050	mg/kg							
4-Nitrophenol	ND	0.050	mg/kg							
Acenaphthene	ND	0.050	mg/kg							
Acenaphthylene	ND	0.050	mg/kg							
Aniline	ND	0.050	mg/kg							
Anthracene	ND	0.050	mg/kg							
Azobenzene/1,2-Diphenylhydrazine	ND	0.050	mg/kg							
Benzidine	ND	0.50	mg/kg							
Benzo (a) anthracene	ND	0.050	mg/kg							
Benzo (a) pyrene	ND	0.050	mg/kg							
Benzo (b) fluoranthene	ND	0.050	mg/kg							
Benzo (g,h,i) perylene	ND	0.10	mg/kg							
Benzo (k) fluoranthene	ND	0.050	mg/kg							
Benzoic acid	ND	2.5	mg/kg							
Benzyl alcohol	ND	0.050	mg/kg							
Bis(2-chloroethoxy)methane	ND	0.050	mg/kg							
Bis(2-chloroethyl)ether	ND	0.050	mg/kg							
Bis(2-chloroisopropyl)ether	ND	0.050	mg/kg							
Bis(2-ethylhexyl)phthalate	0.0305	0.050	mg/kg					NR		J

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Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3F0001-BLK1)				Analyzed: 06/04/13 14:03						
Butyl benzyl phthalate	ND	0.050	mg/kg							
Carbazole	ND	0.050	mg/kg							
Chrysene	ND	0.050	mg/kg							
Dibenzo (a,h) anthracene	ND	0.10	mg/kg							
Dibenzofuran	ND	0.050	mg/kg							
Diethyl phthalate	ND	0.050	mg/kg							
Dimethyl phthalate	ND	0.25	mg/kg							
Di-n-butyl phthalate	0.0315	0.050	mg/kg					NR		J
Di-n-octyl phthalate	ND	0.050	mg/kg							
Fluoranthene	ND	0.050	mg/kg							
Fluorene	ND	0.050	mg/kg							
Hexachlorobenzene	ND	0.050	mg/kg							
Hexachlorobutadiene	ND	0.050	mg/kg							
Hexachlorocyclopentadiene	ND	0.050	mg/kg							
Hexachloroethane	ND	0.050	mg/kg							
Indeno (1,2,3-cd) pyrene	ND	0.10	mg/kg							
Isophorone	ND	0.050	mg/kg							
Naphthalene	ND	0.050	mg/kg							
Nitrobenzene	ND	0.050	mg/kg							
N-Nitrosodimethylamine	ND	0.050	mg/kg							
N-Nitrosodi-n-propylamine	ND	0.050	mg/kg							
N-Nitrosodiphenylamine	ND	0.050	mg/kg							
Pentachlorophenol	ND	0.050	mg/kg							
Phenanthrene	ND	0.050	mg/kg							
Phenol	ND	0.050	mg/kg							
Pyrene	ND	0.050	mg/kg							
Pyridine	ND	0.10	mg/kg							
Surr: 2,4,6-Tribromophenol	*4.31*		*mg/kg*	*5.00*		*86*	*40-97*			
Surr: 2-Fluorobiphenyl	*2.47*		*mg/kg*	*2.50*		*99*	*39-100*			
Surr: 2-Fluorophenol	*7.19*		*mg/kg*	*5.00*		*144*	*26-115*			*S-11*
Surr: Nitrobenzene-d5	*2.55*		*mg/kg*	*2.50*		*102*	*49-105*			
Surr: Phenol-d5	*5.47*		*mg/kg*	*5.00*		*109*	*36-105*			*S-11*
Surr: Terphenyl-d14	*2.80*		*mg/kg*	*2.50*		*112*	*36-106*			*S-11*
LCS (W3F0001-BS1)				Analyzed: 06/04/13 14:33						
1,2,4-Trichlorobenzene	1.94	0.050	mg/kg	2.50		78	28-120	NR		
1,4-Dichlorobenzene	1.98	0.050	mg/kg	2.50		79	41-98	NR		
2,4-Dinitrotoluene	2.07	0.050	mg/kg	2.50		83	43-121	NR		
2-Chlorophenol	1.96	0.050	mg/kg	2.50		78	22-123	NR		
4-Chloro-3-methylphenol	1.88	0.050	mg/kg	2.50		75	26-126	NR		
4-Nitrophenol	1.81	0.050	mg/kg	2.50		72	17-139	NR		
Acenaphthene	2.07	0.050	mg/kg	2.50		83	44-105	NR		
N-Nitrosodi-n-propylamine	2.00	0.050	mg/kg	2.50		80	24-128	NR		
Pentachlorophenol	1.80	0.050	mg/kg	2.50		72	20-116	NR		

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3F0001-BS1)				Analyzed: 06/04/13 14:33						
Phenol	1.82	0.050	mg/kg	2.50		73	22-123	NR		
Pyrene	2.13	0.050	mg/kg	2.50		85	42-118	NR		
Surr: 2,4,6-Tribromophenol	*3.91*		*mg/kg*	*5.00*		*78*	*40-97*			
Surr: 2-Fluorobiphenyl	*2.15*		*mg/kg*	*2.50*		*86*	*39-100*			
Surr: 2-Fluorophenol	*4.65*		*mg/kg*	*5.00*		*93*	*26-115*			
Surr: Nitrobenzene-d5	*1.99*		*mg/kg*	*2.50*		*80*	*49-105*			
Surr: Phenol-d5	*4.22*		*mg/kg*	*5.00*		*84*	*36-105*			
Surr: Terphenyl-d14	*2.35*		*mg/kg*	*2.50*		*94*	*36-106*			
Matrix Spike (W3F0001-MS1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:03						
1,2,4-Trichlorobenzene	16.2	0.49	mg/kg	24.4	ND	66	26-124	NR		
1,4-Dichlorobenzene	16.9	0.49	mg/kg	24.4	ND	69	28-117	NR		
2,4-Dinitrotoluene	19.2	0.49	mg/kg	24.4	ND	79	26-132	NR		
2-Chlorophenol	16.4	0.49	mg/kg	24.4	ND	67	24-124	NR		
4-Chloro-3-methylphenol	15.9	0.49	mg/kg	24.4	ND	65	5-153	NR		
4-Nitrophenol	17.6	0.49	mg/kg	24.4	ND	72	0.6-139	NR		
Acenaphthene	17.6	0.49	mg/kg	24.4	ND	72	33-117	NR		
N-Nitrosodi-n-propylamine	16.5	0.49	mg/kg	24.4	ND	68	20-128	NR		
Pentachlorophenol	16.9	0.49	mg/kg	24.4	0.394	68	7-125	NR		
Phenol	15.8	0.49	mg/kg	24.4	ND	65	40-120	NR		
Pyrene	20.1	0.49	mg/kg	24.4	ND	83	22-148	NR		
Surr: 2,4,6-Tribromophenol	*34.6*		*mg/kg*	*48.8*		*71*	*40-97*			
Surr: 2-Fluorobiphenyl	*17.3*		*mg/kg*	*24.4*		*71*	*39-100*			
Surr: 2-Fluorophenol	*35.6*		*mg/kg*	*48.8*		*73*	*26-115*			
Surr: Nitrobenzene-d5	*16.1*		*mg/kg*	*24.4*		*66*	*49-105*			
Surr: Phenol-d5	*34.3*		*mg/kg*	*48.8*		*70*	*36-105*			
Surr: Terphenyl-d14	*21.4*		*mg/kg*	*24.4*		*88*	*36-106*			
Matrix Spike Dup (W3F0001-MSD1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:33						
1,2,4-Trichlorobenzene	14.9	0.48	mg/kg	23.9	ND	62	26-124	8	30	
1,4-Dichlorobenzene	15.5	0.48	mg/kg	23.9	ND	65	28-117	9	30	
2,4-Dinitrotoluene	15.8	0.48	mg/kg	23.9	ND	66	26-132	19	30	
2-Chlorophenol	15.3	0.48	mg/kg	23.9	ND	64	24-124	7	30	
4-Chloro-3-methylphenol	14.4	0.48	mg/kg	23.9	ND	60	5-153	10	30	
4-Nitrophenol	13.6	0.48	mg/kg	23.9	ND	57	0.6-139	25	30	
Acenaphthene	16.0	0.48	mg/kg	23.9	ND	67	33-117	10	30	
N-Nitrosodi-n-propylamine	14.2	0.48	mg/kg	23.9	ND	59	20-128	15	30	
Pentachlorophenol	12.3	0.48	mg/kg	23.9	0.394	50	7-125	31	30	MS-05
Phenol	14.5	0.48	mg/kg	23.9	ND	61	40-120	9	30	
Pyrene	15.6	0.48	mg/kg	23.9	ND	65	22-148	25	30	
Surr: 2,4,6-Tribromophenol	*27.8*		*mg/kg*	*47.8*		*58*	*40-97*			
Surr: 2-Fluorobiphenyl	*14.9*		*mg/kg*	*23.9*		*62*	*39-100*			
Surr: 2-Fluorophenol	*31.0*		*mg/kg*	*47.8*		*65*	*26-115*			
Surr: Nitrobenzene-d5	*14.6*		*mg/kg*	*23.9*		*61*	*49-105*			
Surr: Phenol-d5	*30.1*		*mg/kg*	*47.8*		*63*	*36-105*			

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LADWP - Environmental Laboratory
1630 North Main Street, Bldg. 7, Rm 311
Los Angeles CA, 90012

Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3F0001 - EPA 8270C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W3F0001-MSD1)	**Source: 3E30014-01**			Analyzed: 06/04/13 15:33						
Surr: Terphenyl-d14	*15.7*		*mg/kg*	*23.9*		*66*	*36-106*			

LADWP - Environmental Laboratory
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Report ID: 3E30014
Project ID: 7600 Tyrone Ave,COC #13-1321,26, WO#

Date Received: 05/30/13 09:50
Date Reported: 06/05/13 16:04

Notes and Definitions

S-11	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit
NR	Not Reportable

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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JONES ENVIRONMENTAL, INC.

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(714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project Name:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers. Tubing placed in the ground for soil gas sampling was purged three different times as recommended by DTSC/RWQCB regulations. This purge test determined how many purges of the soil gas tubing were needed throughout the project. One, three and ten purge volumes were analyzed to make this determination.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used since this purging level gave the highest results for the compound(s) of greatest interest.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity.

All samples were analyzed within 30 minutes of sampling.

Approval: 

Steve Jones, Ph.D.
Laboratory Manager

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP3-15 1P**	**VP3-15 3P**	**VP3-15 10P**	**VP3-5**	**VP2-5**		
JEL ID:	**A-7098-01**	**A-7098-02**	**A-7098-03**	**A-7098-04**	**A-7098-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	**0.033**	**0.014**	**0.029**	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	**0.896**	**0.810**	**0.872**	**0.316**	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP3-15 1P	VP3-15 3P	VP3-15 10P	VP3-5	VP2-5		
JEL ID:	A-7098-01	A-7098-02	A-7098-03	A-7098-04	A-7098-05	Practical Quantitation Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	**0.057**	**0.048**	**0.054**	**0.059**	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	**2.83**	**2.55**	**2.89**	**2.26**	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	89%	109%	103%	105%	109%	75 - 125	
Toluene-d_8	97%	99%	93%	98/%	100%	75 - 125	
4-Bromofluorobenzene	99%	97%	97%	97%	106%	75 - 125	
	A2-060413-A· 7098_1	A2-060413-A· 7098_1	A2-060413-A· 7098_1	A2-060413-A· 7098_1	A2-060413-A· 7098_1		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP2-15**	**VP1-5**	**VP1-15**	**VP9-5**	**VP9-5 REP**		
JEL ID:	**A-7098-06**	**A-7098-07**	**A-7098-08**	**A-7098-09**	**A-7098-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	VP2-15	VP1-5	VP1-15	VP9-5	VP9-5 REP		
JEL ID:	**A-7098-06**	**A-7098-07**	**A-7098-08**	**A-7098-09**	**A-7098-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	102%	102%	103%	101%	109%	75 - 125	
Toluene-d_8	107%	102%	102%	91%	103%	75 - 125	
4-Bromofluorobenzene	107%	105%	97%	93%	91%	75 - 125	
	A2-060413-A·7098_1	A2-060413-A·7098_1	A2-060413-A·7098_1	A2-060413-A·7098_1	A2-060413-A·7098_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP9-15**	**VP14-5**	**VP14-15**	**VP15-5**	**VP15-15**		
JEL ID:	**A-7098-11**	**A-7098-12**	**A-7098-13**	**A-7098-14**	**A-7098-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	ND	ND	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP9-15**	**VP14-5**	**VP14-15**	**VP15-5**	**VP15-15**		
JEL ID:	**A-7098-11**	**A-7098-12**	**A-7098-13**	**A-7098-14**	**A-7098-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	107%	105%	103%	103%	101%	75 - 125	
Toluene-d_8	99%	100%	105%	117%	95%	75 - 125	
4-Bromofluorobenzene	95%	101%	101%	107%	100%	75 - 125	
	A2-060413-A·7098_1	A2-060413-A·7098_1	A2-060413-A·7098_1	A2-060413-A·7098_1	A2-060413-A·7098_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP8-5**	**VP8-15**	**VP7-5**	**VP7-15**	**VP10-5**		
JEL ID:	**A-7098-16**	**A-7098-17**	**A-7098-18**	**A-7098-19**	**A-7098-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	**0.017**	ND	**0.035**	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	**0.153**	**0.454**	**0.022**	**0.363**	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP8-5**	**VP8-15**	**VP7-5**	**VP7-15**	**VP10-5**		
JEL ID:	**A-7098-16**	**A-7098-17**	**A-7098-18**	**A-7098-19**	**A-7098-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	ND	ND	ND	**0.057**	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	99%	102%	101%	113%	98%	75 - 125	
Toluene-d_8	104%	105%	95%	95%	100%	75 - 125	
4-Bromofluorobenzene	105%	101%	103%	93%	93%	75 - 125	
	A2-060413-A·7098_1	A2-060413-A·7098_1	A2-060413-A·7098_1	A2-060413-A·7098_1	A2-060413-A·7098_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	A-7098
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/4/2013
		Date Received:	6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**METHOD BLANK**	**SAMPLING BLANK**		
JEL ID:	**A-7098-21**	**A-7098-22**	**Practical Quantitation Limit**	**Units**
Analytes:				
Benzene	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	0.008	µg/L
Bromoform	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	0.008	µg/L
Chloroethane	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
Chloromethane	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	A-7098-21	A-7098-22	Practical Quantitation Limit	Units
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	0.008	µg/L
Freon 113	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	0.008	µg/L
Naphthalene	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	0.008	µg/L
Styrene	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	0.008	µg/L
Toluene	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	0.008	µg/L
Xylenes	ND	ND	0.008	µg/L
MTBE	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	0.040	µg/L
TIC:				
n-propanol	ND	ND	0.008	µg/L
n-pentane	ND	ND	0.008	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	100%	103%	75 - 125	
Toluene-d_8	107%	100%	75 - 125	
4-Bromofluorobenzene	109%	97%	75 - 125	
	A2-060413-A·7098_1	A2-060413-A·7098_1		

ND= Not Detected

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JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Alta Environmental, Inc	**Report date:**	6/4/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:** **Client Ref. No.:**	A-7098 ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:** **Date Received:**	6/4/2013 6/4/2013
Project:	Tyrone	**Date Analyzed:**	6/4/2013
Project Address:	7600 Tryone Ave. Van Nuys, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** A2-060413-A-7098_1

JEL ID:	**A-7098-24**	**A-7098-25**			**A-7098-23**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	105%	107%	2.2%	70-130	105%	70-130
Benzene	96%	100%	4.6%	70-130	100%	70-130
Trichloroethylene	112%	108%	3.1%	70-130	95%	70-130
Toluene	107%	101%	5.2%	70-130	116%	70-130
Chlorobenzene	112%	113%	1.6%	70-130	100%	70-130
Surrogate Recovery:						
Dibromofluoromethane	99%	105%		75-125	113%	75-125
Toluene-d_8	109%	106%		75-125	114%	75-125
4-Bromofluorobenzene	101%	99%		75-125	103%	75-125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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Chain-of-Custody Record

Client: Alta Environmental, Inc
Project Name: Tyrone
Project Address: 7600 Tyrone Ave, Van Nuys, CA
Project Contact: Kristyn Drake

Date: 06.04.13
Client Project #: ODWP-13-1198

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~200 cc/min
Shut in Test (Y) / N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project # A-7098

Page 1 of 2

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: EPA 8260B (VOCs + OXYs)	Magnehelic Vacuum (in/H_2O)	Number of Containers	Remarks/Special Instructions
VP3-15 1P	1	643	6/4	0739	0750	A-7098-01	SG	X	<5	2	gas tight glass syringe
VP3-15 3P	3	1930		0750	0804	A-7098-02	SG	X	<5	2	
VP3-15 10P	10	6433		0802	0819	A-7098-03	SG	X	<5	2	
VP3-5	1	589		0825	0833	A-7098-04	SG	X	<5	2	
VP2-5	1	589		0838	0847	A-7098-05	SG	X	<5	2	
VP2-15	1	643		0851	0901	A-7098-06	SG	X	<5	2	
VP1-5	1	589		0915	0921	A-7098-07	SG	X	<5	2	
VP1-15	1	643		0923	0935	A-7098-08	SG	X	<5	2	
VP9-5	1	589		0935	0949	A-7098-09	SG	X	<5	2	
VP9-5 REP	1	589	↓	0937	1004	A-7098-10	SG	X	<5	2	↓

Total Number of Containers: 13

❶ Relinquished by (signature)	Date 6/4/13	❷ Received by (signature)	Date 06/03/13
Company ALTA ENVIRON	Time 1300	Company Jones Environmental	Time 1300
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date
Company	Time	Company	Time

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

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Fullerton, CA 92838
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Fax (714) 449-9685
www.jonesenvironmentallab.com

Chain-of-Custody Record

Client: Alta Environmental Inc
Project Name: Tyrone
Project Address: 7600 Tyrone Ave, Van Nuys, CA
Project Contact: Kristyn Drake
Date: 06.04.13
Client Project #: ODWP-13-1198

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☐ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~200 cc/min
Shut in Test ☐ Y ☐ N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: A-7098
Page: 2 of 2
Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: EPA 8260B (VOCs + OXYs)	Magnehelic Vacuum (in/H_2O)	Number of Containers	Remarks/Special Instructions
VP9-15	1	643	06/04	1005	1017	A-7098-11	SG	X	<5	2	gas tight glass syringe
VP14-5	1	589	|	1017	1031	A-7098-12	SG	X	<5	2	
VP14-15	1	643	|	1033	1045	A-7098-13	SG	X	<5	2	
VP15-5	1	589	|	1046	1059	A-7098-14	SG	X	<5	2	
VP15-15	1	643	|	1055	1115	A-7098-15	SG	X	<5	2	
VP8.5	1	589	|	1111	1130	A-7098-16	SG	X	<5	2	
VP8-15	1	643	|	1126	1144	A-7098-17	SG	X	<5	2	
VP7-5	1	589	|	1140	1159	A-7098-18	SG	X	<5	2	
VP7-15	1	643	|	1155	1213	A-7098-19	SG	X	<5	2	
VP10-5	1	589	↓	1209	1228	A-7098-20	SG	X	<5	2	

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❶ Relinquished by (signature)	Date 6/4/13	❷ Received by (signature)	Date 6/4/13		Total Number of Containers
Company ALTA ENVIRON	Time 1300	Company Jones Environmental	Time 1300		
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date		
Company	Time	Company	Time		

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

JONES ENVIRONMENTAL, INC.

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(714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	D-0573
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/5/2013
		Date Received:	6/5/2013
Project Name:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-propanol and n-pentane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-propanol or n-pentane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used since previous sampling events determined this to be the appropriate purging volume.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity.

All samples were analyzed within 30 minutes of sampling.

Approval: 

Steve Jones, Ph.D.
Laboratory Manager

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	D-0573
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/5/2013
		Date Received:	6/5/2013
Project:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP12-5**	**VP12-15**	**VP13-5**	**VP13-15**	**VP6-5**		
JEL ID:	**D-0573-01**	**D-0573-02**	**D-0573-03**	**D-0573-04**	**D-0573-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	**0.039**	ND	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	**0.118**	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP12-5**	**VP12-15**	**VP13-5**	**VP13-15**	**VP6-5**		
JEL ID:	**D-0573-01**	**D-0573-02**	**D-0573-03**	**D-0573-04**	**D-0573-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	**0.184**	**0.529**	**0.203**	**1.13**	**0.651**	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	100%	97%	97%	103%	101%	75 - 125	
Toluene-d_8	87%	89%	91%	89%	85%	75 - 125	
4-Bromofluorobenzene	111%	101%	115%	118%	102%	75 - 125	
	D2-060513-D·0573_1	D2-060513-D·0573_1	D2-060513-D·0573_1	D2-060513-D·0573_1	D2-060513-D·0573_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	D-0573
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/5/2013
		Date Received:	6/5/2013
Project:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP6-15**	**VP11-5**	**VP11-5 REP**	**VP11-15**	**VP10-15**		
JEL ID:	**D-0573-06**	**D-0573-07**	**D-0573-08**	**D-0573-09**	**D-0573-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	ND	ND	ND	0.008	µg/L
Bromoform	ND	ND	ND	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	ND	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Chloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Chloroform	**0.046**	ND	ND	ND	ND	0.008	µg/L
Chloromethane	ND	ND	ND	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	ND	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**VP6-15**	**VP11-5**	**VP11-5 REP**	**VP11-15**	**VP10-15**		
JEL ID:	**D-0573-06**	**D-0573-07**	**D-0573-08**	**D-0573-09**	**D-0573-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Freon 113	**0.964**	ND	ND	**0.068**	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	ND	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	ND	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	ND	ND	ND	0.008	µg/L
Naphthalene	ND	ND	ND	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Styrene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Toluene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	ND	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	ND	ND	ND	0.008	µg/L
Xylenes	ND	ND	ND	ND	ND	0.008	µg/L
MTBE	ND	ND	ND	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	ND	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	ND	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	ND	ND	ND	0.040	µg/L
TIC:							
n-propanol	ND	ND	ND	ND	ND	0.008	µg/L
n-pentane	ND	ND	ND	ND	ND	0.008	µg/L
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	95%	98%	97%	91%	101%	75 - 125	
Toluene-d_8	88%	96%	83%	93%	86%	75 - 125	
4-Bromofluorobenzene	117%	105%	106%	117%	118%	75 - 125	
	D2-060513-D·0573_1	D2-060513-D·0573_1	D2-060513-D·0573_1	D2-060513-D·0573_1	D2-060513-D·0573_1		

ND= Not Detected

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	D-0573
	Long Beach, CA 90807	**Client Ref. No.:**	ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/5/2013
		Date Received:	6/5/2013
Project:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave.	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**METHOD BLANK**	**SAMPLING BLANK**		
JEL ID:	**D-0573-11**	**D-0573-12**	**Practical Quantitation Limit**	**Units**
Analytes:				
Benzene	ND	ND	0.008	µg/L
Bromobenzene	ND	ND	0.008	µg/L
Bromodichloromethane	ND	ND	0.008	µg/L
Bromoform	ND	ND	0.008	µg/L
n-Butylbenzene	ND	ND	0.008	µg/L
sec-Butylbenzene	ND	ND	0.008	µg/L
tert-Butylbenzene	ND	ND	0.008	µg/L
Carbon tetrachloride	ND	ND	0.008	µg/L
Chlorobenzene	ND	ND	0.008	µg/L
Chloroethane	ND	ND	0.008	µg/L
Chloroform	ND	ND	0.008	µg/L
Chloromethane	ND	ND	0.008	µg/L
2-Chlorotoluene	ND	ND	0.008	µg/L
4-Chlorotoluene	ND	ND	0.008	µg/L
Dibromochloromethane	ND	ND	0.008	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.008	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.008	µg/L
Dibromomethane	ND	ND	0.008	µg/L
1,2- Dichlorobenzene	ND	ND	0.008	µg/L
1,3-Dichlorobenzene	ND	ND	0.008	µg/L
1,4-Dichlorobenzene	ND	ND	0.008	µg/L
Dichlorodifluoromethane	ND	ND	0.008	µg/L
1,1-Dichloroethane	ND	ND	0.008	µg/L
1,2-Dichloroethane	ND	ND	0.008	µg/L
1,1-Dichloroethene	ND	ND	0.008	µg/L
cis-1,2-Dichloroethene	ND	ND	0.008	µg/L
trans-1,2-Dichloroethene	ND	ND	0.008	µg/L
1,2-Dichloropropane	ND	ND	0.008	µg/L
1,3-Dichloropropane	ND	ND	0.008	µg/L
2,2-Dichloropropane	ND	ND	0.008	µg/L
1,1-Dichloropropene	ND	ND	0.008	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	D-0573-11	D-0573-12	Practical Quantitation Limit	Units
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.008	µg/L
trans-1,3-Dichloropropene	ND	ND	0.008	µg/L
Ethylbenzene	ND	ND	0.008	µg/L
Freon 113	ND	ND	0.008	µg/L
Hexachlorobutadiene	ND	ND	0.008	µg/L
Isopropylbenzene	ND	ND	0.008	µg/L
4-Isopropyltoluene	ND	ND	0.008	µg/L
Methylene chloride	ND	ND	0.008	µg/L
Naphthalene	ND	ND	0.008	µg/L
n-Propylbenzene	ND	ND	0.008	µg/L
Styrene	ND	ND	0.008	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.008	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.008	µg/L
Tetrachloroethylene	ND	ND	0.008	µg/L
Toluene	ND	ND	0.008	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.008	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.008	µg/L
1,1,1-Trichloroethane	ND	ND	0.008	µg/L
1,1,2-Trichloroethane	ND	ND	0.008	µg/L
Trichloroethylene	ND	ND	0.008	µg/L
Trichlorofluoromethane	ND	ND	0.008	µg/L
1,2,3-Trichloropropane	ND	ND	0.008	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.008	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.008	µg/L
Vinyl chloride	ND	ND	0.008	µg/L
Xylenes	ND	ND	0.008	µg/L
MTBE	ND	ND	0.008	µg/L
Ethyl-tert-butylether	ND	ND	0.008	µg/L
Di-isopropylether	ND	ND	0.008	µg/L
tert-amylmethylether	ND	ND	0.008	µg/L
tert-Butylalcohol	ND	ND	0.040	µg/L
TIC:				
n-propanol	ND	ND	0.008	µg/L
n-pentane	ND	ND	0.008	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	80%	98%	75 - 125	
Toluene-d_8	116%	110%	75 - 125	
4-Bromofluorobenzene	95%	91%	75 - 125	
	D2-060513-D·0573_1	D2-060513-D·0573_1		

ND= Not Detected

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JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Alta Environmental, Inc	**Report date:**	6/5/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:** **Client Ref. No.:**	D-0573 ODWP-13-1198
Attn:	Steve Morrill	**Date Sampled:** **Date Received:**	6/5/2013 6/5/2013
Project:	Tyrone	**Date Analyzed:**	6/5/2013
Project Address:	7600 Tryone Ave. Van Nuys, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** D2-060513-D-0573_1

JEL ID:	**D-0573-14**	**D-0573-15**			**D-0573-13**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	108%	111%	2.6%	70-130	96%	70-130
Benzene	102%	105%	2.7%	70-130	103%	70-130
Trichloroethylene	98%	106%	7.5%	70-130	105%	70-130
Toluene	104%	111%	6.9%	70-130	105%	70-130
Chlorobenzene	102%	110%	7.9%	70-130	111%	70-130
Surrogate Recovery:						
Dibromofluoromethane	81%	81%		75-125	83%	75-125
Toluene-d_8	104%	112%		75-125	103%	75-125
4-Bromofluorobenzene	89%	89%		75-125	93%	75-125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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Chain-of-Custody Record

Client: Alta Environmental Inc
Project Name: Tyrone
Project Address: 7600 Tyrone Ave, Van Nuys, CA
Project Contact: Kristyn Drake

Date: 06.05.13
Client Project #: DDWP-13-1198

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: ~200 cc/min
Shut in Test (Y) / N
Tracer:
- ☒ n-propanol
- ☒ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project # D-0573
Page 1 of 1

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Analysis Requested: EPA 8260B (VOCs + OXYs)

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	EPA 8260B (VOCs + OXYs)				Magnehelic Vacuum (in/H_2O)	Number of Containers	Remarks/Special Instructions
VP12-5	1	589	6/5	0739	0747	D-0573-01	SG	X				<5	2	gas tight glass syringe
VP12-15	1	643	"	0751	0803	D-0573-02	SG	X				<5	2	
VP13-5	1	589	"	0806	0817	D-0573-03	SG	X				<5	2	
VP13-15	1	643	"	0820	0832	D-0573-04	SG	X				<5	2	
VP6-5	1	589	"	0835	0847	D0573-05	SG	X				<5	2	
VP6-15	1	643	"	0850	0903	D-0573-06	SG	X				<5	2	
VP11-5	1	589	"	0926	0943	D-0573-07	SG	X				<5	2	
VP11-5 REP	1	589	"	0928	0958	D-0573-08	SG	X				<5	2	
VP11-15	1	643	"	1002	1012	D-0573-09	SG	X				<5	2	
VP10-15	1	643	↓	1016	1026	D-0573-10	SG	X				<5	2	

Total Number of Containers

❶ Relinquished by (signature)	Date 6/5/13	❷ Received by (signature)	Date 06/05/13
Company ALTA ENVIRONMENTAL	Time 1100	Company Jones Environmental	Time 1100
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date
Company	Time	Company	Time

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Alta Environmental	**Report date:**	6/14/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	ST-6995
	Long Beach, CA 90807	**Client Ref. No.:**	LDWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/12/2013
		Date Received:	6/12/2013
Project Name:	Tyrone Property	**Date Analyzed:**	6/13/2013
Project Address:	1600 Tyrone Ave	**Physical State:**	Soil Gas
	Van Nuys, CA		

ANALYSES REQUESTED

1. EPA 8260B - Volatile Organics by GC/MS + Oxygenates

Sampling – Soil Gas samples were collected in one liter summa canisters.

The sampling rate was approximately 200 cc/min except when noted differently on the chain of custody record using a gas tight syringe. 1 purge volume was used.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for some length of time. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, Matrix Spike (MS) and Matrix Spike Duplicates (MSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity.

All samples were analyzed within 30 minutes of sampling.

Approval: 

Steve Jones, Ph.D.
Laboratory Manager

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental	**Report date:**	6/14/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	ST-6995
	Long Beach, CA 90807	**Client Ref. No.:**	LDWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/12/2013
		Date Received:	6/12/2013
Project:	Tyrone Property	**Date Analyzed:**	6/13/2013
Project Address:	1600 Tyrone Ave	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**SV16-5'**	**SV16-15'**	**SV16-5' REP**		
JEL ID:	**ST-6995-01**	**ST-6995-02**	**ST-6995-03**	**Practical Quantitation Limit**	**Units**
Analytes:					
Benzene	ND	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	ND	0.020	µg/L
Bromoform	ND	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	ND	0.020	µg/L
Chloroethane	ND	ND	ND	0.020	µg/L
Chloroform	ND	ND	ND	0.020	µg/L
Chloromethane	ND	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	SV16-5'	SV16-15'	SV16-5' REP		
JEL ID:	ST-6995-01	ST-6995-02	ST-6995-03	Practical Quantitation Limit	Units
Analytes:					
cis-1,3-Dichloropropene	ND	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	ND	0.020	µg/L
Freon 113	ND	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	ND	0.020	µg/L
Naphthalene	ND	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	ND	0.020	µg/L
Styrene	ND	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	ND	0.020	µg/L
Tetrachloroethylene	ND	ND	ND	0.020	µg/L
Toluene	ND	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	ND	0.020	µg/L
Xylenes	ND	ND	ND	0.020	µg/L
MTBE	ND	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	ND	0.100	µg/L
TIC:					
n-propanol	ND	ND	ND	0.020	µg/L
n-pentane	ND	ND	ND	0.020	µg/L
Dilution Factor	1	1	1		
Surrogate Recoveries:				**QC Limits**	
Dibromofluoromethane	95%	95%	99%	75 - 125	
Toluene-d_8	96%	91%	96%	75 - 125	
4-Bromofluorobenzene	94%	86%	95%	75 - 125	
	B1-061313-ST-6995	B1-061313-ST-6995	B1-061313-ST-6995		

ND= Not Detected

JONES ENVIRONMENTAL, INC.
P.O. Box 5387 | Fullerton, CA 92838
(714) 449-9937 | Fax (714) 449-9685

JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Alta Environmental	**Report date:**	6/14/2013
Client Address:	3777 Long Beach Blvd.	**JEL Ref. No.:**	ST-6995
	Long Beach, CA 90807	**Client Ref. No.:**	LDWP-13-1198
Attn:	Steve Morrill	**Date Sampled:**	6/12/2013
		Date Received:	6/12/2013
Project:	Tyrone Property	**Date Analyzed:**	6/13/2013
Project Address:	1600 Tyrone Ave	**Physical State:**	Soil Gas
	Van Nuys, CA		

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	**METHOD BLANK**	**SAMPLING BLANK**		
JEL ID:	**ST-6995-04**	**ST-6995-05**	**Practical Quantitation Limit**	**Units**
Analytes:				
Benzene	ND	ND	0.020	µg/L
Bromobenzene	ND	ND	0.020	µg/L
Bromodichloromethane	ND	ND	0.020	µg/L
Bromoform	ND	ND	0.020	µg/L
n-Butylbenzene	ND	ND	0.020	µg/L
sec-Butylbenzene	ND	ND	0.020	µg/L
tert-Butylbenzene	ND	ND	0.020	µg/L
Carbon tetrachloride	ND	ND	0.020	µg/L
Chlorobenzene	ND	ND	0.020	µg/L
Chloroethane	ND	ND	0.020	µg/L
Chloroform	ND	ND	0.020	µg/L
Chloromethane	ND	ND	0.020	µg/L
2-Chlorotoluene	ND	ND	0.020	µg/L
4-Chlorotoluene	ND	ND	0.020	µg/L
Dibromochloromethane	ND	ND	0.020	µg/L
1,2-Dibromo-3-chloropropane	ND	ND	0.020	µg/L
1,2-Dibromoethane (EDB)	ND	ND	0.020	µg/L
Dibromomethane	ND	ND	0.020	µg/L
1,2- Dichlorobenzene	ND	ND	0.020	µg/L
1,3-Dichlorobenzene	ND	ND	0.020	µg/L
1,4-Dichlorobenzene	ND	ND	0.020	µg/L
Dichlorodifluoromethane	ND	ND	0.020	µg/L
1,1-Dichloroethane	ND	ND	0.020	µg/L
1,2-Dichloroethane	ND	ND	0.020	µg/L
1,1-Dichloroethene	ND	ND	0.020	µg/L
cis-1,2-Dichloroethene	ND	ND	0.020	µg/L
trans-1,2-Dichloroethene	ND	ND	0.020	µg/L
1,2-Dichloropropane	ND	ND	0.020	µg/L
1,3-Dichloropropane	ND	ND	0.020	µg/L
2,2-Dichloropropane	ND	ND	0.020	µg/L
1,1-Dichloropropene	ND	ND	0.020	µg/L

ND= Not Detected

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample ID:	METHOD BLANK	SAMPLING BLANK		
JEL ID:	**ST-6995-04**	**ST-6995-05**	**Practical Quantitation Limit**	**Units**
Analytes:				
cis-1,3-Dichloropropene	ND	ND	0.020	µg/L
trans-1,3-Dichloropropene	ND	ND	0.020	µg/L
Ethylbenzene	ND	ND	0.020	µg/L
Freon 113	ND	ND	0.020	µg/L
Hexachlorobutadiene	ND	ND	0.020	µg/L
Isopropylbenzene	ND	ND	0.020	µg/L
4-Isopropyltoluene	ND	ND	0.020	µg/L
Methylene chloride	ND	ND	0.020	µg/L
Naphthalene	ND	ND	0.020	µg/L
n-Propylbenzene	ND	ND	0.020	µg/L
Styrene	ND	ND	0.020	µg/L
1,1,1,2-Tetrachloroethane	ND	ND	0.020	µg/L
1,1,2,2-Tetrachloroethane	ND	ND	0.020	µg/L
Tetrachloroethylene	ND	ND	0.020	µg/L
Toluene	ND	ND	0.020	µg/L
1,2,3-Trichlorobenzene	ND	ND	0.020	µg/L
1,2,4-Trichlorobenzene	ND	ND	0.020	µg/L
1,1,1-Trichloroethane	ND	ND	0.020	µg/L
1,1,2-Trichloroethane	ND	ND	0.020	µg/L
Trichloroethylene	ND	ND	0.020	µg/L
Trichlorofluoromethane	ND	ND	0.020	µg/L
1,2,3-Trichloropropane	ND	ND	0.020	µg/L
1,2,4-Trimethylbenzene	ND	ND	0.020	µg/L
1,3,5-Trimethylbenzene	ND	ND	0.020	µg/L
Vinyl chloride	ND	ND	0.020	µg/L
Xylenes	ND	ND	0.020	µg/L
MTBE	ND	ND	0.020	µg/L
Ethyl-tert-butylether	ND	ND	0.020	µg/L
Di-isopropylether	ND	ND	0.020	µg/L
tert-amylmethylether	ND	ND	0.020	µg/L
tert-Butylalcohol	ND	ND	0.100	µg/L
TIC:				
n-propanol	ND	ND	0.020	µg/L
n-pentane	ND	ND	0.020	µg/L
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	98%	98%	75 - 125	
Toluene-d_8	101%	96%	75 - 125	
4-Bromofluorobenzene	100%	99%	75 - 125	
	B1-061313-ST-6995	B1-061313-ST-6995		

ND= Not Detected

JONES ENVIRONMENTAL, INC.

P.O. Box 5387 | FULLERTON, CA 92838
(714) 449-9937 | FAX (714) 449-9685

JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Alta Environmental	**Report date:**	6/14/2013
Client Address:	3777 Long Beach Blvd. Long Beach, CA 90807	**JEL Ref. No.:** **Client Ref. No.:**	ST-6995 LDWP-13-1198
Attn:	Steve Morrill	**Date Sampled:** **Date Received:**	6/12/2013 6/12/2013
Project:	Tyrone Property	**Date Analyzed:**	6/13/2013
Project Address:	1600 Tyrone Ave Van Nuys, CA	**Physical State:**	Soil Gas

EPA 8260B-Volatile Organics by GC/MS + Oxygenates

Sample Spiked: Ambient Air **GC#:** B1-061313-ST-6995

JEL ID:	**ST-6995-07**	**ST-6995-08**			**ST-6995-06**	
Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)	LCS	Acceptability Range (%)
1,1-Dichloroethylene	71%	67%	6.3%	70-130	76%	70-130
Benzene	100%	107%	6.1%	70-130	106%	70-130
Trichloroethylene	96%	98%	1.9%	70-130	100%	70-130
Toluene	98%	100%	2.7%	70-130	106%	70-130
Chlorobenzene	97%	101%	4.4%	70-130	104%	70-130
Surrogate Recovery:						
Dibromofluoromethane	98%	96%		75-125	84%	75-125
Toluene-d_8	97%	96%		75-125	101%	75-125
4-Bromofluorobenzene	98%	98%		75-125	82%	75-125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

JONES ENVIRONMENTAL, INC.
P.O. Box 5387
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Chain-of-Custody Record

Client: Alta Environmental
Date: 6/12/13
Project Name: Tyrone Property
Client Project #: LDWP-13-1198
Project Address: 11000 Tyrone Ave
Van Nuys, CA
Project Contact: Kristyn Drake

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☒ Normal
- ☐ Mobile Lab

SOIL GAS
Purge Number: ☒ 1P ☐ 3P ☐ 7P ☐ 10P
Purge Rate: 200 cc/min
Shut in Test Y / N
Tracer:
- ☐ n-propanol
- ☐ n-pentane
- ☐ 1,1-DFA
- ☐ Helium
- ☐ _____

JEL Project #: ST6995
Page 1 of 1

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☐ no
Sealed ☐ yes ☐ no

Sample ID	Purge Number	Purge Volume	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	Analysis Requested: 8260B - VOCs	Analysis Requested	Analysis Requested	Analysis Requested	Analysis Requested	Analysis Requested	Magnehelic Vacuum (in/H_2O)	Number of Containers	Remarks/Special Instructions
SV16-5'		1	6/12/13	1422			SG	X						-5	1	SUMMA (S#: 1490)
SV16-15'		1	↓	1410	~~1410~~ (KD)		SG	X						-5	1	SUMMA
SV16-5' REP		1	↓	1428			SG	X						-5	1	SUMMA

❶ Relinquished by (signature)	Date 6/12/13	❷ Received by (signature)	Date 6/12/13	3	Total Number of Containers		
Company Alta Environmental	Time 1415	Company JEL	Time 1415				
❸ Relinquished by (signature)	Date	❹ Received by Laboratory (signature)	Date				
Company	Time	Company	Time				

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B1
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0825		B1-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0827		B1-2'						0.0	
0830		B1-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B2
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0930		B2-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0932		B2-2'						0.0	
0934		B2-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B3
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0920		B3-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0922		B3-2'						0.0	
0924		B3-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B4
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0910		B4-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0912		B4-2'						0.0	
0914		B4-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B5
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1030		B5-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1032		B5-2'						0.0	
1034		B5-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B6
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1000		B6-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1002		B6-2'						0.0	
1004		B6-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B7
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1040		B7-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1042		B7-2'						0.0	
1044		B7-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B8
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1010		B8-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1012		B8-2'						0.0	
1014		B8-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B9
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1100		B9-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1102		B9-2'						0.0	
1104		B9-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B10
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1110		B10-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1112		B10-2'						0.0	
1114		B10-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B11
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1210		B11-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1212		B11-2'						0.0	
1214		B11-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B12
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1300		B12-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1302		B12-2'						0.0	
1304		B12-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B13
DATE DRILLED 5/29/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0745		B13-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0747		B13-2'						0.0	
0749		B13-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B14
DATE DRILLED 5/29/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0840		B14-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0842		B14-2'						0.0	
0844		B14-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B15
DATE DRILLED 5/29/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0800		B15-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0802		B15-2'						0.0	
0804		B15-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B16
DATE DRILLED 5/29/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0810		B16-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0812		B16-2'						0.0	
0814		B16-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B17
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1306		B17-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1308		B17-2'						0.0	
1310		B17-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B18
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0950		B18-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0952		B18-2'						0.0	
0954		B18-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B19
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0810		B19-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0812		B19-2'						0.0	
0814		B19-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B20
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1050		B20-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1052		B20-2'						0.0	
1054		B20-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B21
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0800		B21-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0802		B21-2'						0.0	
0804		B21-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B22
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0850		B22-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0852		B22-2'						0.0	
0854		B22-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B23
DATE DRILLED 5/29/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0830		B23-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0832		B23-2'						0.0	
0834		B23-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B24
DATE DRILLED 5/29/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0906		B24-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0908		B24-2'						0.0	
0910		B24-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B25
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0900		B25-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0902		B25-2'						0.0	
0904		B25-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B26
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0940		B26-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0942		B26-2'						0.0	
0944		B26-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B27
DATE DRILLED 5/29/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0900		B27-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0902		B27-2'						0.0	
0904		B27-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B28
DATE DRILLED 5/29/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
0930		B28-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
0932		B28-2'						0.0	
0934		B28-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B29
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1020		B29-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1022		B29-2'						0.0	
1024		B29-3'		5				0.0	Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 3 **WELL DEPTH (FT BGS)** NA
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER B30
DATE DRILLED 5/28/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
1130		B30-1'			MLS			0.0	**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
1132		B30-2'						0.0	
1134		B30-3'						0.0	
				5					Boring Terminated at 3' bgs. No Groundwater Encountered.

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP1
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	AC		1/4" Nylaflow Tubing (typical)		**3" Asphalt**
					MLS		Dry granular bentonite (typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, medium dense, no staining, no odor
				5			Sand pack (#3 Sand - typical)		**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
					ML				
				10			Seal (hydrated bentonite chips - typical)		(Gradual change to light brown with depth)
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP2
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	MLS		1/4" Nylaflow Tubing (typical) Dry granular bentonite (typical) Sand pack (#3 Sand - typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, medium dense, no staining, no odor
				5	ML		Seal (hydrated bentonite chips - typical) 1/4" Soil-gas implant (typical)		**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor (Gradual change to light brown with depth) Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				10					
				15					
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP3
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	AC		1/4" Nylaflow Tubing (typical)		**3" Asphalt**
					MLS		Dry granular bentonite (typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, medium dense, no staining, no odor
				5			Sand pack (#3 Sand - typical)		**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
					ML				
				10			Seal (hydrated bentonite chips - typical)		(Gradual change to light brown with depth)
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP4
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	AC		1/4" Nylaflow Tubing (typical)		**3" Asphalt**
					MLS		Dry granular bentonite (typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, medium dense, no staining, no odor
				5			Sand pack (#3 Sand - typical)		
					ML		Seal (hydrated bentonite chips - typical)		**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
				10					
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP5
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	AC		1/4" Nylaflow Tubing (typical)		**3" Asphalt**
					MLS		Dry granular bentonite (typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, medium dense, no staining, no odor
				5			Sand pack (#3 Sand - typical)		
					ML		Seal (hydrated bentonite chips - typical)		**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
				10					
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP6
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	AC		1/4" Nylaflow Tubing (typical)		**3" Asphalt**
									Sandy Silt, very fine grained sand, trace coarse grains, medium brown, dry, medium dense, no staining, no odor
							Dry granular bentonite (typical)		
					MLS		Sand pack (#3 Sand - typical)		
				5					
					ML				**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
					MLS				**Sandy Silt**, very fine grained sand, trace coarse grains, medium brown, dry, medium dense, no staining, no odor
				10			Seal (hydrated bentonite chips - typical)		
					ML				**Silt**, trace very fine grained sand, trace coarse grains, medium dense, medium to light brown, dry, no staining, no odor
									Same as above, ~2" layer of medium angular gravel at 13' bgs.
							1/4" Soil-gas implant (typical)		
				15					Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP7
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0			1/4" Nylaflow Tubing (typical)		**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
							Dry granular bentonite (typical)		
							Sand pack (#3 Sand - typical)		
				5	MLS				Same as above, trace small gravel and coarse grains
				10			Seal (hydrated bentonite chips - typical)		
					ML				**Silt**, trace very fine grained sand, dense, medium to light brown, dry, no staining, no odor
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP8
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	AC		1/4" Nylaflow Tubing (typical)		**3" Asphalt**
									Sandy Silt, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
							Dry granular bentonite (typical)		
							Sand pack (#3 Sand - typical)		
				5	MLS				Same as above, trace small gravel and coarse grains
							Seal (hydrated bentonite chips - typical)		
				10	ML				**Silt**, trace very fine grained sand, dense, medium to light brown, dry, no staining, no odor
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP9
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	MLS		1/4" Nylaflow Tubing (typical); Dry granular bentonite (typical); Sand pack (#3 Sand - typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, medium dense, no staining, no odor
				5					
				10	ML		Seal (hydrated bentonite chips - typical); 1/4" Soil-gas implant (typical)		**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
				15					Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP10
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	MLS		1/4" Nylaflow Tubing (typical); Dry granular bentonite (typical); Sand pack (#3 Sand - typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, loose, no staining, no odor
				5					
					SW				**Well Graded Sand** medium brown, dry, loose, no staining, no odor
				10			Seal (hydrated bentonite chips - typical)		
					ML				**Silt**, trace very fine grained sand, loose, medium to light brown, dry, no staining, no odor
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP11
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	MLS		1/4" Nylaflow Tubing (typical); Dry granular bentonite (typical); Sand pack (#3 Sand - typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, loose, no staining, no odor
				5					
					SW				**Well Graded Sand** medium brown, dry, loose, no staining, no odor
				10			Seal (hydrated bentonite chips - typical)		
					ML				**Silt**, trace very fine grained sand, loose, medium to light brown, dry, no staining, no odor
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP12
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		5	MLS		1/4" Nylaflow Tubing (typical) Dry granular bentonite (typical) Sand pack (#3 Sand - typical)		**Sandy Silt**, very fine grained sand, trace coarse grains, medium brown, dry, medium dense, no staining, no odor
					ML				**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
					MLS				**Sandy Silt**, very fine grained sand, trace coarse grains, medium brown, dry, medium dense, no staining, no odor
				10	ML		Seal (hydrated bentonite chips - typical)		**Silt**, trace very fine grained sand, trace coarse grains, medium dense, medium to light brown, dry, no staining, no odor
				15			1/4" Soil-gas implant (typical)		Same as above, layer of medium angular gravel at 14' bgs. Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP13
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	MLS		1/4" Nylaflow Tubing (typical); Dry granular bentonite (typical); Sand pack (#3 Sand - typical)		**Sandy Silt**, very fine grained sand, trace coarse grains, medium brown, dry, medium dense, no staining, no odor
				5	ML				**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
					MLS				**Sandy Silt**, very fine grained sand, trace coarse grains, medium brown, dry, medium dense, no staining, no odor
					ML				
				10			Seal (hydrated bentonite chips - typical)		**Silt**, trace very fine grained sand, trace coarse grains, medium dense, medium to light brown, dry, no staining, no odor
									Same as above, layer of medium angular gravel at 14' bgs.
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP14
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	AC		1/4" Nylaflow Tubing (typical)		**4" Asphalt**
					MLS		Dry granular bentonite (typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, medium dense, no staining, no odor
				5			Sand pack (#3 Sand - typical)		
					ML		Seal (hydrated bentonite chips - typical)		**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
				10					
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP15
DATE DRILLED 5/30/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		0	AC		1/4" Nylaflow Tubing (typical)		**4" Asphalt**
					MLS		Dry granular bentonite (typical)		**Sandy Silt**, very fine grained sand, light to medium brown, dry, medium dense, no staining, no odor
				5			Sand pack (#3 Sand - typical)		
									Silt, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
					ML				
				10			Seal (hydrated bentonite chips - typical)		
							1/4" Soil-gas implant (typical)		
				15					Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

ALTA ENVIRONMENTAL

Boring Log

PROJECT NUMBER LDWP-13-1198
PROJECT NAME LADWP Tyrone Site
LOCATION 7600 Tyrone Avenue, Van Nuys, California
DRILLING METHOD Geoprobe
SAMPLING METHOD Continuous Core
BORING DIAMETER 2.25"
BORING DEPTH (FT BGS) 15 **WELL DEPTH (FT BGS)** 5' and 15'
LOGGED BY K.Drake **CHECKED BY** S. Ridenour
REMARKS

BORING/WELL NUMBER VP16
DATE DRILLED 6/12/13
CASING DIAMETER/TYPE NA
SLOT SIZE NA **SCREEN INTERVAL** NA
GRAVEL PACK TYPE NA
DRILLING CONTRACTOR Interphase Environmental, Inc.
DEPTH TO WATER DURING DRILLING (FT BGS) NA
DEPTH TO WATER AFTER INSTALLATION (FT BGS) NA

TIME	BLOW COUNT	SAMPLE ID.	SAMPLE INTERVAL	DEPTH (BGS)	U.S.C.S.	GRAPHIC LOG	WELL DIAGRAM	PID (ppm)	LITHOLOGIC DESCRIPTION
		No Soil Samples Collected		5	MLS		1/4" Nylaflow Tubing (typical) Dry granular bentonite (typical) Sand pack (#3 Sand - typical)		**Sandy Silt**, very fine grained sand, trace medium grains, medium brown, dry, no staining, no odor
				10	ML		Seal (hydrated bentonite chips - typical)		**Silt**, trace very fine grained sand, medium dense, medium to light brown, dry, no staining, no odor
				15			1/4" Soil-gas implant (typical)		Boring Terminated at 15' bgs. No Groundwater Encountered. Soil vapor probes installed at 5' and 15' bgs.
				20					

WELL-MODIFIED LDWP-13-1198.GPJ WELL.GDT 6/20/13

APPENDIX E

Noise Measurement Data

Appendix E - Noise

Field Noise Measurement Data Sheets

DUDEK
CREATOR OF KERATA TECHNOLOGY

FIELD DATA REPORT

Field Noise Measurement Data

Record: 274	
Project Name	*LADWP*
Project #	*8584*
Observer(s)	*Connor Burke*
Date	*2016-12-15*
autoemail	*cburke@dudek.com*

Meteorological Conditions	
Temp (F)	*60*
Humidity % (R.H.)	*65*
Wind	*Calm*
Wind Speed (MPH)	*2*
Wind Direction	*East*
Sky	*Overcast*

Instrument and Calibrator Information	
Instrument Name List	*(ENC) Rion NL-52*
Instrument Name	*(ENC) Rion NL-52*
Instrument Name Lookup Key	*(ENC) Rion NL-52*
Manufacturer	*Rion*
Model	*NL-52*
Serial Number	*553896*
Calibrator Name	*(ENC) LD CAL150*
Calibrator Name	*(ENC) LD CAL150*
Calibrator Name Lookup Key	*(ENC) LD CAL150*
Calibrator Manufacturer	*Larson Davis*
Calibrator Model	*LD CAL150*
Calibrator Serial #	*5152*
Pre-Test (dBA SPL)	*94*
Post-Test (dBA SPL)	*94*
Windscreen	*Yes*
Weighting?	*A-WTD*
Slow/Fast?	*Slow*
ANSI?	*Yes*

Recordings	
Record #	*1*
Site ID	*M1*
Site Location	*Latitude:34.206975, Longitude:-118.444379, Altitude:232.893478, Speed:0.000000, Horizontal Accuracy:5.000000, Vertical Accuracy:4.000000, Time:10:41:25 AM PST*
Begin (Time)	*11:05:00*
End (Time)	*11:15:00*
Leq	*72.2*
Lmax	*88.6*
Lmin	*42.4*
Other Lx?	*L90, L50, L10*
L90	*47.6*
L50	*61.4*
L10	*73.1*
Other (Specify Metric)	

DUDEK
CREATOR OF KERATA TECHNOLOGY

FIELD DATA REPORT

Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Birds, Distant Aircraft, Rustling Leaves*
Other Noise Sources Additional Description	*Trash truck.*
Is the same instrument and calibrator being used as previously notated?	*Yes*
Are the meteorological conditions the same as previously notated?	*Yes*

Source Info and Traffic Counts	
Distance to Roadway (feet)	*10*
Estimated Vehicle Speed (MPH)	*35*
Count Duration (Min)	*10*

Traffic Counts	
Counting Both Directions?	*Yes*
Autos	*1*
Number of Vehicles - Autos	*50*
Medium Trucks	*1*
Number of Vehicles - Medium Trucks	*4*

Description / Photos

Site Photos

Photo

Comments / Description	*Facing Covello Street*

DUDEK
CREATOR OF KERATA TECHNOLOGY

FIELD DATA REPORT

Recordings	
Record #	*2*
Site ID	*M4*
Site Location	*Latitude:34.208662, Longitude:-118.443318, Altitude:235.254379, Speed:0.280000, Horizontal Accuracy:10.000000, Vertical Accuracy:4.000000, Time:10:56:43 AM PST*
Begin (Time)	*11:20:00*
End (Time)	*11:30:00*
Leq	*53.5*
Lmax	*76*
Lmin	*46.6*
Other Lx?	*L90, L50, L10*
L90	*46.6*
L50	*51.2*
L10	*55.7*
Other (Specify Metric)	
Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Birds, Distant Aircraft, Distant Industrial*
Other Noise Sources Additional Description	*Fork lift across street at Time Warner building.*
Is the same instrument and calibrator being used as previously notated?	*Yes*
Are the meteorological conditions the same as previously notated?	*Yes*

Description / Photos

Site Photos	
Photo	
Comments / Description	*Facing south*

DUDEK
CREATOR OF KERATA TECHNOLOGY

FIELD DATA REPORT

Recordings	
Record #	*3*
Site ID	*M3*
Site Location	*Latitude:34.207117, Longitude:-118.447841, Altitude:237.415390, Speed:0.000000, Horizontal Accuracy:5.000000, Vertical Accuracy:4.000000, Time:11:21:13 AM PST*
Begin (Time)	*11:45:00*
End (Time)	*11:55:00*
Leq	*57.6*
Lmax	*92.3*
Lmin	*45*
Other Lx?	*L90, L50, L10*
L90	*48*
L50	*55.7*
L10	*61.3*
Other (Specify Metric)	
Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Birds, Distant Aircraft, Distant Dog Barking, Distant Traffic, Rustling Leaves*
Is the same instrument and calibrator being used as previously notated?	*Yes*
Are the meteorological conditions the same as previously notated?	*Yes*

Source Info and Traffic Counts	
Distance to Roadway (feet)	*20*
Estimated Vehicle Speed (MPH)	*35*
Count Duration (Min)	*10*

Traffic Counts	
Counting Both Directions?	*Yes*
Autos	*1*
Number of Vehicles - Autos	*35*
Medium Trucks	*1*
Number of Vehicles - Medium Trucks	*2*
Heavy Trucks	*1*
Number of Vehicles - Heavy Trucks	*1*

Description / Photos

Site Photos

DUDEK
CREATOR OF KERATA TECHNOLOGY

FIELD DATA REPORT

Photo	
Comments / Description	*Facing north towards LADWP*

Recordings	
Record #	*4*
Site ID	*M2*
Site Location	*Latitude:34.207046,* *Longitude:-118.441058,* *Altitude:233.370895,* *Speed:0.000000,* *Horizontal Accuracy:5.000000,* *Vertical Accuracy:3.000000,* *Time:11:41:53 AM PST*
Begin (Time)	*12:05:00*
End (Time)	*12:15:00*
Leq	*55.3*
Lmax	*93.6*
Lmin	*44.6*
Other Lx?	*L90, L50, L10*
L90	*46.5*
L50	*50.7*
L10	*58.4*
Other (Specify Metric)	
Primary Noise Source	*Traffic*
Other Noise Sources (Background)	*Birds, Distant Aircraft, Distant Traffic, Rustling Leaves*
Is the same instrument and calibrator being used as previously notated?	*Yes*
Are the meteorological conditions the same as previously notated?	*Yes*

DUDEK
CREATOR OF KERATA TECHNOLOGY

FIELD DATA REPORT

Source Info and Traffic Counts	
Distance to Roadway (feet)	*20*
Estimated Vehicle Speed (MPH)	*35*
Count Duration (Min)	*10*
Posted Speed Limit Sign (MPH)	*35*

Traffic Counts	
Counting Both Directions?	*Yes*
Autos	*1*
Number of Vehicles - Autos	*40*
Medium Trucks	*1*
Number of Vehicles - Medium Trucks	*1*

Description / Photos

Site Photos	
Photo	
Comments / Description	*Facing north towards LADWP*

Construction Noise Model Input / Output

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Site Preparation

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	560	0
Tractor	No	40	84		560	0
Front End Loader	No	40		79.1	580	0
Backhoe	No	40		77.6	580	0
Dozer	No	40		81.7	600	0
Dozer	No	40		81.7	600	0
Dozer	No	40		81.7	620	0

		Results Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe		56.6	52.6	N/A	N/A	N/A	N/A	N/A
Tractor		63	59	N/A	N/A	N/A	N/A	N/A
Front End Loader		57.8	53.8	N/A	N/A	N/A	N/A	N/A
Backhoe		56.3	52.3	N/A	N/A	N/A	N/A	N/A
Dozer		60.1	56.1	N/A	N/A	N/A	N/A	N/A
Dozer		60.1	56.1	N/A	N/A	N/A	N/A	N/A
Dozer		59.8	55.8	N/A	N/A	N/A	N/A	N/A
	Total	63	64.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	850	0
Tractor	No	40	84		850	0

Front End Loader	No	40		79.1	850	0
Backhoe	No	40		77.6	850	0
Dozer	No	40		81.7	850	0
Dozer	No	40		81.7	850	0
Dozer	No	40		81.7	850	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Backhoe	53	49	N/A	N/A	N/A	N/A	N/A
Tractor	59.4	55.4	N/A	N/A	N/A	N/A	N/A
Front End Loader	54.5	50.5	N/A	N/A	N/A	N/A	N/A
Backhoe	53	49	N/A	N/A	N/A	N/A	N/A
Dozer	57.1	53.1	N/A	N/A	N/A	N/A	N/A
Dozer	57.1	53.1	N/A	N/A	N/A	N/A	N/A
Dozer	57.1	53.1	N/A	N/A	N/A	N/A	N/A
Total	59.4	60.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Grading

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

			Equipment Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Excavator	No	40		80.7	560	0
Grader	No	40	85		560	0
Dozer	No	40		81.7	580	0
Backhoe	No	40		77.6	580	0
Front End Loader	No	40		79.1	600	0
Tractor	No	40	84		600	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Excavator	59.7	55.7	N/A	N/A	N/A	N/A	N/A
Grader	64	60	N/A	N/A	N/A	N/A	N/A

Dozer		60.4	56.4	N/A	N/A	N/A	N/A	N/A
Backhoe		56.3	52.3	N/A	N/A	N/A	N/A	N/A
Front End Loader		57.5	53.5	N/A	N/A	N/A	N/A	N/A
Tractor		62.4	58.4	N/A	N/A	N/A	N/A	N/A
	Total	64	64.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	850	0
Grader	No	40	85		850	0
Dozer	No	40		81.7	850	0
Backhoe	No	40		77.6	850	0
Front End Loader	No	40		79.1	850	0
Tractor	No	40	84		850	0

		Calculated (dBA)		Results	Noise Limits (dBA)			
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Excavator		56.1	52.1	N/A	N/A	N/A	N/A	N/A
Grader		60.4	56.4	N/A	N/A	N/A	N/A	N/A
Dozer		57.1	53.1	N/A	N/A	N/A	N/A	N/A
Backhoe		53	49	N/A	N/A	N/A	N/A	N/A
Front End Loader		54.5	50.5	N/A	N/A	N/A	N/A	N/A
Tractor		59.4	55.4	N/A	N/A	N/A	N/A	N/A
	Total	60.4	61.3	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Trenching & Underground Utilities

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compactor (ground)	No	20		83.2	560	0
Backhoe	No	40		77.6	560	0
Tractor	No	40	84		580	0
Slurry Trenching Machine	No	50		80.4	580	0

Results

		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Compactor (ground)		62.2	55.3	N/A	N/A	N/A	N/A	N/A
Backhoe		56.6	52.6	N/A	N/A	N/A	N/A	N/A
Tractor		62.7	58.7	N/A	N/A	N/A	N/A	N/A
Slurry Trenching Machine		59.1	56.1	N/A	N/A	N/A	N/A	N/A
	Total	62.7	62.2	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compactor (ground)	No	20		83.2	850	0
Backhoe	No	40		77.6	850	0
Tractor	No	40	84		850	0
Slurry Trenching Machine	No	50		80.4	850	0

Results

		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Compactor (ground)		58.6	51.6	N/A	N/A	N/A	N/A	N/A
Backhoe		53	49	N/A	N/A	N/A	N/A	N/A
Tractor		59.4	55.4	N/A	N/A	N/A	N/A	N/A
Slurry Trenching Machine		55.8	52.7	N/A	N/A	N/A	N/A	N/A
	Total	59.4	58.8	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019

Case Description: LADWP Mid Valley_Perimeter Wall Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Drill Rig Truck	No	20		79.1	560	0
Concrete Mixer Truck	No	40		78.8	560	0
Concrete Saw	No	20		89.6	580	0
All Other Equipment > 5 HP	No	50	85		580	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq	Night Lmax
Drill Rig Truck	58.2	51.2	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	57.8	53.8	N/A	N/A	N/A	N/A	N/A
Concrete Saw	68.3	61.3	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	63.7	60.7	N/A	N/A	N/A	N/A	N/A
Total	68.3	64.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Drill Rig Truck	No	20		79.1	850	0
Concrete Mixer Truck	No	40		78.8	850	0
Concrete Saw	No	20		89.6	850	0
All Other Equipment > 5 HP	No	50	85		850	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq	Night Lmax
Drill Rig Truck	54.5	47.5	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	54.2	50.2	N/A	N/A	N/A	N/A	N/A

Concrete Saw		65	58	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP		60.4	57.4	N/A	N/A	N/A	N/A	N/A
	Total	65	61.3	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Paving & Site Infrastructure

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	560	0
Paver	No	50		77.2	560	0
Roller	No	20		80	580	0
Roller	No	20		80	580	0
All Other Equipment > 5 HP	No	50	85		600	0
All Other Equipment > 5 HP	No	50	85		600	0

			Results				
	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Paver	56.2	53.2	N/A	N/A	N/A	N/A	N/A
Paver	56.2	53.2	N/A	N/A	N/A	N/A	N/A
Roller	58.7	51.7	N/A	N/A	N/A	N/A	N/A
Roller	58.7	51.7	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	63.4	60.4	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	63.4	60.4	N/A	N/A	N/A	N/A	N/A
Total	63.4	64.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

	Impact	Equipment Spec Lmax	Actual Lmax	Receptor Distance	Estimated Shielding

Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Paver	No	50		77.2	850	0
Paver	No	50		77.2	850	0
Roller	No	20		80	850	0
Roller	No	20		80	850	0
All Other Equipment > 5 HP	No	50	85		850	0
All Other Equipment > 5 HP	No	50	85		850	0

			Results				
	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Paver	52.6	49.6	N/A	N/A	N/A	N/A	N/A
Paver	52.6	49.6	N/A	N/A	N/A	N/A	N/A
Roller	55.4	48.4	N/A	N/A	N/A	N/A	N/A
Roller	55.4	48.4	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	60.4	57.4	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	60.4	57.4	N/A	N/A	N/A	N/A	N/A
Total	60.4	61.5	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Office Building and Staff Parking Structure Construction

		---- Receptor #1 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	560	0
Man Lift	No	20		74.7	560	0
Man Lift	No	20		74.7	580	0
Tractor	No	40	84		580	0
Backhoe	No	40		77.6	600	0
Man Lift	No	20		74.7	600	0
Man Lift	No	20		74.7	620	0
Generator	No	50		80.6	620	0
Front End Loader	No	40		79.1	640	0
Welder / Torch	No	40		74	640	0
Welder / Torch	No	40		74	660	0
Welder / Torch	No	40		74	660	0

		Results						
		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane		59.6	51.6	N/A	N/A	N/A	N/A	N/A
Man Lift		53.7	46.7	N/A	N/A	N/A	N/A	N/A
Man Lift		53.4	46.4	N/A	N/A	N/A	N/A	N/A
Tractor		62.7	58.7	N/A	N/A	N/A	N/A	N/A
Backhoe		56	52	N/A	N/A	N/A	N/A	N/A
Man Lift		53.1	46.1	N/A	N/A	N/A	N/A	N/A
Man Lift		52.8	45.8	N/A	N/A	N/A	N/A	N/A
Generator		58.8	55.8	N/A	N/A	N/A	N/A	N/A
Front End Loader		57	53	N/A	N/A	N/A	N/A	N/A
Welder / Torch		51.9	47.9	N/A	N/A	N/A	N/A	N/A
Welder / Torch		51.6	47.6	N/A	N/A	N/A	N/A	N/A
Welder / Torch		51.6	47.6	N/A	N/A	N/A	N/A	N/A
	Total	62.7	62.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane	No	16		80.6	850	0
Man Lift	No	20		74.7	850	0
Man Lift	No	20		74.7	850	0
Tractor	No	40	84		850	0
Backhoe	No	40		77.6	850	0
Man Lift	No	20		74.7	850	0
Man Lift	No	20		74.7	850	0
Generator	No	50		80.6	850	0
Front End Loader	No	40		79.1	850	0
Welder / Torch	No	40		74	850	0
Welder / Torch	No	40		74	850	0
Welder / Torch	No	40		74	850	0

		Results						
		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane		55.9	48	N/A	N/A	N/A	N/A	N/A

Man Lift		50.1	43.1	N/A	N/A	N/A	N/A	N/A
Man Lift		50.1	43.1	N/A	N/A	N/A	N/A	N/A
Tractor		59.4	55.4	N/A	N/A	N/A	N/A	N/A
Backhoe		53	49	N/A	N/A	N/A	N/A	N/A
Man Lift		50.1	43.1	N/A	N/A	N/A	N/A	N/A
Man Lift		50.1	43.1	N/A	N/A	N/A	N/A	N/A
Generator		56	53	N/A	N/A	N/A	N/A	N/A
Front End Loader		54.5	50.5	N/A	N/A	N/A	N/A	N/A
Welder / Torch		49.4	45.4	N/A	N/A	N/A	N/A	N/A
Welder / Torch		49.4	45.4	N/A	N/A	N/A	N/A	N/A
Welder / Torch		49.4	45.4	N/A	N/A	N/A	N/A	N/A
	Total	59.4	59.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019

Case Description: LADWP Mid Valley_Water Distribution Shop and Maintenance Building Construction

		---- Receptor #1 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	560	0
Man Lift	No	20		74.7	560	0
Man Lift	No	20		74.7	580	0
Generator	No	50		80.6	580	0
Backhoe	No	40		77.6	600	0
Welder / Torch	No	40		74	600	0
Welder / Torch	No	40		74	620	0
Welder / Torch	No	40		74	620	0

	Results						
	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane	59.6	51.6	N/A	N/A	N/A	N/A	N/A
Man Lift	53.7	46.7	N/A	N/A	N/A	N/A	N/A
Man Lift	53.4	46.4	N/A	N/A	N/A	N/A	N/A
Generator	59.3	56.3	N/A	N/A	N/A	N/A	N/A
Backhoe	56	52	N/A	N/A	N/A	N/A	N/A
Welder / Torch	52.4	48.4	N/A	N/A	N/A	N/A	N/A

Welder / Torch		52.1	48.2	N/A	N/A	N/A	N/A	N/A
Welder / Torch		52.1	48.2	N/A	N/A	N/A	N/A	N/A
	Total	59.6	60.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	850	0
Man Lift	No	20		74.7	850	0
Man Lift	No	20		74.7	850	0
Generator	No	50		80.6	850	0
Backhoe	No	40		77.6	850	0
Welder / Torch	No	40		74	850	0
Welder / Torch	No	40		74	850	0
Welder / Torch	No	40		74	850	0

	Calculated (dBA)		Results Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane	55.9	48	N/A	N/A	N/A	N/A	N/A
Man Lift	50.1	43.1	N/A	N/A	N/A	N/A	N/A
Man Lift	50.1	43.1	N/A	N/A	N/A	N/A	N/A
Generator	56	53	N/A	N/A	N/A	N/A	N/A
Backhoe	53	49	N/A	N/A	N/A	N/A	N/A
Welder / Torch	49.4	45.4	N/A	N/A	N/A	N/A	N/A
Welder / Torch	49.4	45.4	N/A	N/A	N/A	N/A	N/A
Welder / Torch	49.4	45.4	N/A	N/A	N/A	N/A	N/A
Total	56	56.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Department Fleet Vehicles Parking Structure Construction

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	560	0
Man Lift	No	20		74.7	560	0
Man Lift	No	20		74.7	580	0
Generator	No	50		80.6	580	0
Backhoe	No	40		77.6	600	0
Welder / Torch	No	40		74	600	0
Welder / Torch	No	40		74	620	0
Welder / Torch	No	40		74	620	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane	59.6	51.6	N/A	N/A	N/A	N/A	N/A
Man Lift	53.7	46.7	N/A	N/A	N/A	N/A	N/A
Man Lift	53.4	46.4	N/A	N/A	N/A	N/A	N/A
Generator	59.3	56.3	N/A	N/A	N/A	N/A	N/A
Backhoe	56	52	N/A	N/A	N/A	N/A	N/A
Welder / Torch	52.4	48.4	N/A	N/A	N/A	N/A	N/A
Welder / Torch	52.1	48.2	N/A	N/A	N/A	N/A	N/A
Welder / Torch	52.1	48.2	N/A	N/A	N/A	N/A	N/A
Total	59.6	60.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	850	0
Man Lift	No	20		74.7	850	0
Man Lift	No	20		74.7	850	0
Generator	No	50		80.6	850	0
Backhoe	No	40		77.6	850	0
Welder / Torch	No	40		74	850	0
Welder / Torch	No	40		74	850	0
Welder / Torch	No	40		74	850	0

		Results						
		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane		55.9	48	N/A	N/A	N/A	N/A	N/A
Man Lift		50.1	43.1	N/A	N/A	N/A	N/A	N/A
Man Lift		50.1	43.1	N/A	N/A	N/A	N/A	N/A
Generator		56	53	N/A	N/A	N/A	N/A	N/A
Backhoe		53	49	N/A	N/A	N/A	N/A	N/A
Welder / Torch		49.4	45.4	N/A	N/A	N/A	N/A	N/A
Welder / Torch		49.4	45.4	N/A	N/A	N/A	N/A	N/A
Welder / Torch		49.4	45.4	N/A	N/A	N/A	N/A	N/A
	Total	56	56.9	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Supply Chain

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	560	0

		Results						
		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane		59.6	51.6	N/A	N/A	N/A	N/A	N/A
	Total	59.6	51.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

				---- Receptor #2 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

		Equipment Spec	Actual	Receptor	Estimated
	Impact	Lmax	Lmax	Distance	Shielding

Description	Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	850	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane	55.9	48	N/A	N/A	N/A	N/A	N/A
Total	55.9	48	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Fleet Maintenance

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	560	0

Results

	Calculated (dBA)		Noise Limits (dBA)				
			Day		Evening		Night
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane	59.6	51.6	N/A	N/A	N/A	N/A	N/A
Total	59.6	51.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	850	0

Results

		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Crane		55.9	48	N/A	N/A	N/A	N/A	N/A
	Total	55.9	48	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Building and CNG Dispensing Area Construction

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	560	5
Man Lift	No	20		74.7	560	0
Tractor	No	40	84		580	0
Backhoe	No	40		77.6	580	0
Paver	No	50		77.2	600	0
All Other Equipment > 5 HP	No	50	85		600	0
Roller	No	20		80	620	0
Tractor	No	40	84		620	0

Results

		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Man Lift		48.7	41.7	N/A	N/A	N/A	N/A	N/A
Man Lift		53.7	46.7	N/A	N/A	N/A	N/A	N/A
Tractor		62.7	58.7	N/A	N/A	N/A	N/A	N/A
Backhoe		56.3	52.3	N/A	N/A	N/A	N/A	N/A
Paver		55.6	52.6	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP		63.4	60.4	N/A	N/A	N/A	N/A	N/A
Roller		58.1	51.1	N/A	N/A	N/A	N/A	N/A
Tractor		62.1	58.2	N/A	N/A	N/A	N/A	N/A
	Total	63.4	64.8	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Man Lift	No	20		74.7	850	0
Man Lift	No	20		74.7	850	0
Tractor	No	40	84		850	0
Backhoe	No	40		77.6	850	0
Paver	No	50		77.2	850	0
All Other Equipment > 5 HP	No	50	85		850	0
Roller	No	20		80	850	0
Tractor	No	40	84		850	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Man Lift		50.1	43.1	N/A	N/A	N/A	N/A	N/A
Man Lift		50.1	43.1	N/A	N/A	N/A	N/A	N/A
Tractor		59.4	55.4	N/A	N/A	N/A	N/A	N/A
Backhoe		53	49	N/A	N/A	N/A	N/A	N/A
Paver		52.6	49.6	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP		60.4	57.4	N/A	N/A	N/A	N/A	N/A
Roller		55.4	48.4	N/A	N/A	N/A	N/A	N/A
Tractor		59.4	55.4	N/A	N/A	N/A	N/A	N/A
	Total	60.4	61.8	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Architectural Coating

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	560	0

		Results						
		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Compressor (air)		56.7	52.7	N/A	N/A	N/A	N/A	N/A
	Total	56.7	52.7	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	850	0

		Results						
		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Compressor (air)		53.1	49.1	N/A	N/A	N/A	N/A	N/A
	Total	53.1	49.1	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/1/2019
Case Description: LADWP Mid Valley_Street Improvement of Hazeltine Ave.

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Receiver 560'	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	560	0
Grader	No	40	85		560	0
Dozer	No	40		81.7	580	0
Backhoe	No	40		77.6	580	0
Front End Loader	No	40		79.1	600	0
Tractor	No	40	84		600	0

Results

		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Excavator		59.7	55.7	N/A	N/A	N/A	N/A	N/A
Grader		64	60	N/A	N/A	N/A	N/A	N/A
Dozer		60.4	56.4	N/A	N/A	N/A	N/A	N/A
Backhoe		56.3	52.3	N/A	N/A	N/A	N/A	N/A
Front End Loader		57.5	53.5	N/A	N/A	N/A	N/A	N/A
Tractor		62.4	58.4	N/A	N/A	N/A	N/A	N/A
	Total	64	64.6	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Acoustical Center 850'	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	850	0
Grader	No	40	85		850	0
Dozer	No	40		81.7	850	0
Backhoe	No	40		77.6	850	0
Front End Loader	No	40		79.1	850	0
Tractor	No	40	84		850	0

Results

		Calculated (dBA)		Noise Limits (dBA)				
				Day		Evening		Night
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax
Excavator		56.1	52.1	N/A	N/A	N/A	N/A	N/A
Grader		60.4	56.4	N/A	N/A	N/A	N/A	N/A
Dozer		57.1	53.1	N/A	N/A	N/A	N/A	N/A
Backhoe		53	49	N/A	N/A	N/A	N/A	N/A
Front End Loader		54.5	50.5	N/A	N/A	N/A	N/A	N/A
Tractor		59.4	55.4	N/A	N/A	N/A	N/A	N/A
	Total	60.4	61.3	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Traffic Noise Model Input / Output

Dudek 8 August 2019
MG TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Existing 2019

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Hazeltine Ave n. of Covello St	45.0	point1	1	3,608.2	1,218.9	300.00				Average	
		point2	2	3,607.8	461.4	300.00					
Covello St - Hazeltine Ave to Tyrone Av	28.0	point4	4	3,593.2	465.1	300.00				Average	
		point5	5	2,286.4	465.1	300.00					
Tyrone Ave n. of Covello St.	45.0	point7	7	2,290.1	482.3	300.00				Average	
		point8	8	2,290.5	1,023.9	300.00					
Tyrone Ave s. of Covello St.	45.0	point9	9	2,291.0	444.5	300.00				Average	
		point10	10	2,291.4	-206.3	300.00					
Covello St - w. of Tyrone Av	28.0	point13	13	2,286.4	465.1	300.00				Average	
		point6	6	859.6	465.1	300.00					
Hazeltine Ave s. of Covello St	45.0	point14	14	3,607.8	461.4	300.00				Average	
		point3	3	3,607.5	-219.0	300.00					
Valerio Street - west of Tyrone Ave	30.0	point17	17	940.3	-220.0	300.00				Average	
		point18	18	2,296.9	-220.0	300.00					
Valerio Street - east of Tyrone Ave	30.0	point21	21	2,296.9	-220.0	300.00				Average	
		point19	19	3,607.9	-220.0	300.00					
Valerio Street - east of Hazeltine Ave	30.0	point22	22	3,607.9	-220.0	300.00				Average	
		point20	20	4,244.6	-220.0	300.00					
Van Nuys Blvd. n of Valerio St.	80.0	point27	27	840.0	-200.0	300.00				Average	
		point28	28	840.0	1,000.0	300.00					

Dudek				**8 August 2019**								
MG				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**PN 10649 / 01**											
RUN:	**LADWP Mid Valley Facility - Existing 2019**											
Roadway	**Points**											
Name	**Name**	**No.**	**Segment**									
			Autos		**MTrucks**		**HTrucks**		**Buses**		**Motorcycles**	
			V	**S**	**V**	**S**	**V**	**S**	**V**	**S**	**V**	**S**
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Hazeltine Ave n. of Covello St	point1	1	89	30	2	30	1	30	0	0	0	0
	point2	2										
Covello St - Hazeltine Ave to Tyrone Av	point4	4	545	30	11	30	6	30	0	0	0	0
	point5	5										
Tyrone Ave n. of Covello St.	point7	7	112	30	2	30	1	30	0	0	0	0
	point8	8										
Tyrone Ave s. of Covello St.	point9	9	112	30	2	30	1	30	0	0	0	0
	point10	10										
Covello St - w. of Tyrone Av	point13	13	601	30	12	30	6	30	0	0	0	0
	point6	6										
Hazeltine Ave s. of Covello St	point14	14	659	30	14	30	7	30	0	0	0	0
	point3	3										
Valerio Street - west of Tyrone Ave	point17	17	852	30	18	30	9	30	0	0	0	0
	point18	18										
Valerio Street - east of Tyrone Ave	point21	21	826	30	17	30	9	30	0	0	0	0
	point19	19										
Valerio Street - east of Hazeltine Ave	point22	22	1003	30	21	30	10	30	0	0	0	0
	point20	20										
Van Nuys Blvd. n of Valerio St.	point27	27	2642	35	54	35	27	35	0	0	0	0
	point28	28										

Dudek 8 August 2019
MG TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Existing 2019

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	2,432.4	410.5	300.00	5.00	0.00	66	10.0	8.0	Y
M2	2	1	3,521.2	408.9	300.00	5.00	0.00	66	10.0	8.0	Y
M3	3	1	1,105.8	416.5	300.00	5.00	0.00	66	10.0	8.0	Y
Hazeltine Ave N of Valerio St	4	1	3,554.2	301.3	300.00	5.00	0.00	66	10.0	8.0	Y
Tyrone Ave N of Valerio St	6	1	2,347.9	251.8	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St west of Tyrone Ave	8	1	1,879.4	-174.1	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St east of Tyrone Ave	9	1	2,991.5	-178.3	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St east of Hazeline Ave	11	1	3,853.8	-177.4	300.00	5.00	0.00	66	10.0	8.0	Y

Dudek 8 August 2019
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Existing 2019

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per Unit Area	$ per Unit Vol.	Top Width	Run:Rise	$ per Unit Length			X	Y	Z	at Point	Seg Ht Incre-ment	#Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
5' Wall	W	0.00	99.99	0.00				0.00	point1	1	2,252.5	426.4	300.00	5.00	0.00	0	0		
									point2	2	956.6	426.4	300.00	5.00					
Barrier2	W	0.00	99.99	0.00				0.00	point3	3	3,556.3	424.8	300.00	5.00	0.00	0	0		
									point4	4	2,345.1	424.8	300.00	5.00					

Dudek
MG

8 August 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Existing 2019
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	55.5	66	55.5	10	----	55.5	0.0	8	-8.0
M2	2	1	0.0	58.4	66	58.4	10	----	58.4	0.0	8	-8.0
M3	3	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
Hazeltine Ave N of Valerio St	4	1	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
Tyrone Ave N of Valerio St	6	1	0.0	54.1	66	54.1	10	----	54.1	0.0	8	-8.0
Valerio St west of Tyrone Ave	8	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
Valerio St east of Tyrone Ave	9	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
Valerio St east of Hazeline Ave	11	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	8	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek 8 August 2019
MG TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Ex w Pr 2019

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway Name	Width	Points Name	No.	Coordinates (pavement) X	Y	Z	Flow Control Control Device	Speed Constraint	Percent Vehicles Affected	Segment Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Hazeltine Ave n. of Covello St	45.0	point1	1	3,608.2	1,218.9	300.00				Average	
		point2	2	3,607.8	461.4	300.00					
Covello St - Hazeltine Ave to Tyrone Av	28.0	point4	4	3,593.2	465.1	300.00				Average	
		point5	5	2,286.4	465.1	300.00					
Tyrone Ave n. of Covello St.	45.0	point7	7	2,290.1	482.3	300.00				Average	
		point8	8	2,290.5	1,023.9	300.00					
Tyrone Ave s. of Covello St.	45.0	point9	9	2,291.0	444.5	300.00				Average	
		point10	10	2,291.4	-206.3	300.00					
Covello St - w. of Tyrone Av	28.0	point13	13	2,286.4	465.1	300.00				Average	
		point6	6	859.6	465.1	300.00					
Hazeltine Ave s. of Covello St	45.0	point14	14	3,607.8	461.4	300.00				Average	
		point3	3	3,607.5	-219.0	300.00					
Valerio Street - west of Tyrone Ave	30.0	point17	17	940.3	-220.0	300.00				Average	
		point18	18	2,296.9	-220.0	300.00					
Valerio Street - east of Tyrone Ave	30.0	point21	21	2,296.9	-220.0	300.00				Average	
		point19	19	3,607.9	-220.0	300.00					
Valerio Street - east of Hazeltine Ave	30.0	point22	22	3,607.9	-220.0	300.00				Average	
		point20	20	4,244.6	-220.0	300.00					
Van Nuys Blvd. n of Valerio St.	80.0	point29	29	840.0	-200.0	300.00				Average	
		point30	30	840.0	1,000.0	300.00					

Dudek 8 August 2019
MG TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Ex w Pr 2019

Roadway Name	Points Name	No.	Segment Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Hazeltine Ave n. of Covello St	point1	1	89	30	2	30	1	30	0	0	0	0
	point2	2										
Covello St - Hazeltine Ave to Tyrone Av	point4	4	545	30	11	30	6	30	0	0	0	0
	point5	5										
Tyrone Ave n. of Covello St.	point7	7	139	30	3	30	1	30	0	0	0	0
	point8	8										
Tyrone Ave s. of Covello St.	point9	9	139	30	3	30	1	30	0	0	0	0
	point10	10										
Covello St - w. of Tyrone Av	point13	13	601	30	12	30	6	30	0	0	0	0
	point6	6										
Hazeltine Ave s. of Covello St	point14	14	755	30	16	30	8	30	0	0	0	0
	point3	3										
Valerio Street - west of Tyrone Ave	point17	17	852	30	18	30	9	30	0	0	0	0
	point18	18										
Valerio Street - east of Tyrone Ave	point21	21	833	30	17	30	9	30	0	0	0	0
	point19	19										
Valerio Street - east of Hazeltine Ave	point22	22	1051	30	22	30	10	30	0	0	0	0
	point20	20										
Van Nuys Blvd. n of Valerio St.	point29	29	2653	35	55	35	27	35	0	0	0	0
	point30	30										

Dudek 8 August 2019
MG TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Ex w Pr 2019

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	2,432.4	410.5	300.00	5.00	0.00	66	10.0	8.0	Y
M2	2	1	3,521.2	408.9	300.00	5.00	0.00	66	10.0	8.0	Y
M3	3	1	1,105.8	416.5	300.00	5.00	0.00	66	10.0	8.0	Y
Hazeltine Ave N of Valerio St	4	1	3,554.2	301.3	300.00	5.00	0.00	66	10.0	8.0	Y
Tyrone Ave N of Valerio St	6	1	2,347.9	251.8	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St west of Tyrone Ave	8	1	1,879.4	-174.1	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St east of Tyrone Ave	9	1	2,991.5	-178.3	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St east of Hazeline Ave	11	1	3,853.8	-177.4	300.00	5.00	0.00	66	10.0	8.0	Y

Dudek 8 August 2019
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Ex w Pr 2019

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht	Perturbs		On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
5' Wall	W	0.00	99.99	0.00				0.00	point1	1	2,252.5	426.4	300.00	5.00	0.00	0	0		
									point2	2	956.6	426.4	300.00	5.00					
Barrier2	W	0.00	99.99	0.00				0.00	point3	3	3,556.3	424.8	300.00	5.00	0.00	0	0		
									point4	4	2,345.1	424.8	300.00	5.00					

Dudek
MG
8 August 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Ex w Pr 2019
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc					
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	55.6	66	55.6	10	----	55.6	0.0	8	-8.0
M2	2	1	0.0	58.8	66	58.8	10	----	58.8	0.0	8	-8.0
M3	3	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
Hazeltine Ave N of Valerio St	4	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
Tyrone Ave N of Valerio St	6	1	0.0	54.7	66	54.7	10	----	54.7	0.0	8	-8.0
Valerio St west of Tyrone Ave	8	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
Valerio St east of Tyrone Ave	9	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
Valerio St east of Hazeline Ave	11	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	8	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**8 August 2019**						
MG					**TNM 2.5**						
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**PN 10649 / 01**						**a State highway agency substantiates the use**				
RUN:	**LADWP Mid Valley Facility - Yr 2023 2019**						**of a different type with the approval of FHWA**				
Roadway		**Points**									
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**	
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft		mph	%		
Hazeltine Ave n. of Covello St	45.0	point1	1	3,608.2	1,218.9	300.00				Average	
		point2	2	3,607.8	461.4	300.00					
Covello St - Hazeltine Ave to Tyrone Av	28.0	point4	4	3,593.2	465.1	300.00				Average	
		point5	5	2,286.4	465.1	300.00					
Tyrone Ave n. of Covello St.	45.0	point7	7	2,290.1	482.3	300.00				Average	
		point8	8	2,290.5	1,023.9	300.00					
Tyrone Ave s. of Covello St.	45.0	point9	9	2,291.0	444.5	300.00				Average	
		point10	10	2,291.4	-206.3	300.00					
Covello St - w. of Tyrone Av	28.0	point13	13	2,286.4	465.1	300.00				Average	
		point6	6	859.6	465.1	300.00					
Hazeltine Ave s. of Covello St	45.0	point14	14	3,607.8	461.4	300.00				Average	
		point3	3	3,607.5	-219.0	300.00					
Valerio Street - west of Tyrone Ave	30.0	point17	17	940.3	-220.0	300.00				Average	
		point18	18	2,296.9	-220.0	300.00					
Valerio Street - east of Tyrone Ave	30.0	point21	21	2,296.9	-220.0	300.00				Average	
		point19	19	3,607.9	-220.0	300.00					
Valerio Street - east of Hazeltine Ave	30.0	point22	22	3,607.9	-220.0	300.00				Average	
		point20	20	4,244.6	-220.0	300.00					
Van Nuys Blvd. n of Valerio St.	80.0	point27	27	840.0	-200.0	300.00				Average	
		point28	28	840.0	1,000.0	300.00					

Dudek 8 August 2019
MG TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Yr 2023 2019

Roadway Name	Points Name	No.	Segment Autos V	Autos S	MTrucks V	MTrucks S	HTrucks V	HTrucks S	Buses V	Buses S	Motorcycles V	Motorcycles S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Hazeltine Ave n. of Covello St	point1	1	89	30	2	30	1	30	0	0	0	0
	point2	2										
Covello St - Hazeltine Ave to Tyrone Av	point4	4	545	30	11	30	6	30	0	0	0	0
	point5	5										
Tyrone Ave n. of Covello St.	point7	7	114	30	2	30	1	30	0	0	0	0
	point8	8										
Tyrone Ave s. of Covello St.	point9	9	114	30	2	30	1	30	0	0	0	0
	point10	10										
Covello St - w. of Tyrone Av	point13	13	601	30	12	30	6	30	0	0	0	0
	point6	6										
Hazeltine Ave s. of Covello St	point14	14	676	30	14	30	7	30	0	0	0	0
	point3	3										
Valerio Street - west of Tyrone Ave	point17	17	875	30	18	30	9	30	0	0	0	0
	point18	18										
Valerio Street - east of Tyrone Ave	point21	21	849	30	18	30	9	30	0	0	0	0
	point19	19										
Valerio Street - east of Hazeltine Ave	point22	22	1029	30	21	30	11	30	0	0	0	0
	point20	20										
Van Nuys Blvd. n of Valerio St.	point27	27	2722	35	56	35	28	35	0	0	0	0
	point28	28										

Dudek 8 August 2019
MG TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Yr 2023 2019

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	2,432.4	410.5	300.00	5.00	0.00	66	10.0	8.0	Y
M2	2	1	3,521.2	408.9	300.00	5.00	0.00	66	10.0	8.0	Y
M3	3	1	1,105.8	416.5	300.00	5.00	0.00	66	10.0	8.0	Y
Hazeltine Ave N of Valerio St	4	1	3,554.2	301.3	300.00	5.00	0.00	66	10.0	8.0	Y
Tyrone Ave N of Valerio St	6	1	2,347.9	251.8	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St west of Tyrone Ave	8	1	1,879.4	-174.1	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St east of Tyrone Ave	9	1	2,991.5	-178.3	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St east of Hazeline Ave	11	1	3,853.8	-177.4	300.00	5.00	0.00	66	10.0	8.0	Y

Dudek 8 August 2019
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Yr 2023 2019

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per Unit Area	$ per Unit Vol.	Top Width	Run:Rise	$ per Unit Length			X	Y	Z	at Point	Seg Ht Incre-ment	#Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
5' Wall	W	0.00	99.99	0.00				0.00	point1	1	2,252.5	426.4	300.00	5.00	0.00	0	0		
									point2	2	956.6	426.4	300.00	5.00					
Barrier2	W	0.00	99.99	0.00				0.00	point3	3	3,556.3	424.8	300.00	5.00	0.00	0	0		
									point4	4	2,345.1	424.8	300.00	5.00					

Dudek
MG
8 August 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Valley Facility - Yr 2023 2019
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	55.5	66	55.5	10	----	55.5	0.0	8	-8.0
M2	2	1	0.0	58.4	66	58.4	10	----	58.4	0.0	8	-8.0
M3	3	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
Hazeltine Ave N of Valerio St	4	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
Tyrone Ave N of Valerio St	6	1	0.0	54.1	66	54.1	10	----	54.1	0.0	8	-8.0
Valerio St west of Tyrone Ave	8	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
Valerio St east of Tyrone Ave	9	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
Valerio St east of Hazeline Ave	11	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	8	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**8 August 2019**						
MG					**TNM 2.5**						
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**PN 10649 / 01**						**a State highway agency substantiates the use**				
RUN:	**LADWP Mid Vlly Fcity - Yr 2023 w P 2019**						**of a different type with the approval of FHWA**				
Roadway		**Points**									
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**	
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft		mph	%		
Hazeltine Ave n. of Covello St	45.0	point1	1	3,608.2	1,218.9	300.00				Average	
		point2	2	3,607.8	461.4	300.00					
Covello St - Hazeltine Ave to Tyrone Av	28.0	point4	4	3,593.2	465.1	300.00				Average	
		point5	5	2,286.4	465.1	300.00					
Tyrone Ave n. of Covello St.	45.0	point7	7	2,290.1	482.3	300.00				Average	
		point8	8	2,290.5	1,023.9	300.00					
Tyrone Ave s. of Covello St.	45.0	point9	9	2,291.0	444.5	300.00				Average	
		point10	10	2,291.4	-206.3	300.00					
Covello St - w. of Tyrone Av	28.0	point13	13	2,286.4	465.1	300.00				Average	
		point6	6	859.6	465.1	300.00					
Hazeltine Ave s. of Covello St	45.0	point14	14	3,607.8	461.4	300.00				Average	
		point3	3	3,607.5	-219.0	300.00					
Valerio Street - west of Tyrone Ave	30.0	point17	17	940.3	-220.0	300.00				Average	
		point18	18	2,296.9	-220.0	300.00					
Valerio Street - east of Tyrone Ave	30.0	point21	21	2,296.9	-220.0	300.00				Average	
		point19	19	3,607.9	-220.0	300.00					
Valerio Street - east of Hazeltine Ave	30.0	point22	22	3,607.9	-220.0	300.00				Average	
		point20	20	4,244.6	-220.0	300.00					
Van Nuys Blvd. n of Valerio St.	80.0	point27	27	840.0	-200.0	300.00				Average	
		point28	28	840.0	1,000.0	300.00					

Dudek				**8 August 2019**								
MG				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**PN 10649 / 01**											
RUN:	**LADWP Mid Vlly Fcity - Yr 2023 w P 2019**											
Roadway	**Points**											
Name	**Name**	**No.**	**Segment**									
			Autos		**MTrucks**		**HTrucks**		**Buses**		**Motorcycles**	
			V	**S**	**V**	**S**	**V**	**S**	**V**	**S**	**V**	**S**
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Hazeltine Ave n. of Covello St	point1	1	89	30	2	30	1	30	0	0	0	0
	point2	2										
Covello St - Hazeltine Ave to Tyrone Av	point4	4	545	30	11	30	6	30	0	0	0	0
	point5	5										
Tyrone Ave n. of Covello St.	point7	7	142	30	3	30	1	30	0	0	0	0
	point8	8										
Tyrone Ave s. of Covello St.	point9	9	142	30	3	30	1	30	0	0	0	0
	point10	10										
Covello St - w. of Tyrone Av	point13	13	601	30	12	30	6	30	0	0	0	0
	point6	6										
Hazeltine Ave s. of Covello St	point14	14	772	30	16	30	8	30	0	0	0	0
	point3	3										
Valerio Street - west of Tyrone Ave	point17	17	875	30	18	30	9	30	0	0	0	0
	point18	18										
Valerio Street - east of Tyrone Ave	point21	21	856	30	18	30	9	30	0	0	0	0
	point19	19										
Valerio Street - east of Hazeltine Ave	point22	22	1077	30	22	30	11	30	0	0	0	0
	point20	20										
Van Nuys Blvd. n of Valerio St.	point27	27	2732	35	56	35	28	35	0	0	0	0
	point28	28										

Dudek						**8 August 2019**					
MG						**TNM 2.5**					
INPUT: RECEIVERS											
PROJECT/CONTRACT:	**PN 10649 / 01**										
RUN:	**LADWP Mid Vlly Fcity - Yr 2023 w P 2019**										
Receiver											
Name	**No.**	**#DUs**	**Coordinates (ground)**			**Height**	**Input Sound Levels and Criteria**				**Active**
			X	**Y**	**Z**	**above**	**Existing**	**Impact Criteria**		**NR**	**in**
						Ground	**LAeq1h**	**LAeq1h**	**Sub'l**	**Goal**	**Calc.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M1	1	1	2,432.4	410.5	300.00	5.00	0.00	66	10.0	8.0	Y
M2	2	1	3,521.2	408.9	300.00	5.00	0.00	66	10.0	8.0	Y
M3	3	1	1,105.8	416.5	300.00	5.00	0.00	66	10.0	8.0	Y
Hazeltine Ave N of Valerio St	4	1	3,554.2	301.3	300.00	5.00	0.00	66	10.0	8.0	Y
Tyrone Ave N of Valerio St	6	1	2,347.9	251.8	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St west of Tyrone Ave	8	1	1,879.4	-174.1	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St east of Tyrone Ave	9	1	2,991.5	-178.3	300.00	5.00	0.00	66	10.0	8.0	Y
Valerio St east of Hazeline Ave	11	1	3,853.8	-177.4	300.00	5.00	0.00	66	10.0	8.0	Y

Dudek 8 August 2019
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Vlly Fcity - Yr 2023 w P 2019

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per Unit Area	$ per Unit Vol.	Top Width	Run:Rise	$ per Unit Length			X	Y	Z	at Point	Seg Ht Incre-ment	#Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
5' Wall	W	0.00	99.99	0.00				0.00	point1	1	2,252.5	426.4	300.00	5.00	0.00	0	0		
									point2	2	956.6	426.4	300.00	5.00					
Barrier2	W	0.00	99.99	0.00				0.00	point3	3	3,556.3	424.8	300.00	5.00	0.00	0	0		
									point4	4	2,345.1	424.8	300.00	5.00					

Dudek
MG

8 August 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 10649 / 01
RUN: LADWP Mid Vlly Fcity - Yr 2023 w P 2019
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M1	1	1	0.0	55.6	66	55.6	10	----	55.6	0.0	8	-8.0
M2	2	1	0.0	58.8	66	58.8	10	----	58.8	0.0	8	-8.0
M3	3	1	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0
Hazeltine Ave N of Valerio St	4	1	0.0	61.2	66	61.2	10	----	61.2	0.0	8	-8.0
Tyrone Ave N of Valerio St	6	1	0.0	54.8	66	54.8	10	----	54.8	0.0	8	-8.0
Valerio St west of Tyrone Ave	8	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
Valerio St east of Tyrone Ave	9	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
Valerio St east of Hazeline Ave	11	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	8	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**8 August 2019**						
MG					**TNM 2.5**						
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**PN 8584 / 13**						**a State highway agency substantiates the use**				
RUN:	**LADWP Mid Valley Facility - Yr 2026**						**of a different type with the approval of FHWA**				
Roadway		**Points**									
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**	
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft		mph	%		
Hazeltine Ave n. of Covello St	45.0	point1	1	3,608.2	1,218.9	300.00				Average	
		point2	2	3,607.8	461.4	300.00					
Covello St - Hazeltine Ave to Tyrone Av	28.0	point4	4	3,593.2	465.1	300.00				Average	
		point5	5	2,286.4	465.1	300.00					
Tyrone Ave n. of Covello St.	45.0	point7	7	2,290.1	482.3	300.00				Average	
		point8	8	2,290.5	1,023.9	300.00					
Tyrone Ave s. of Covello St.	45.0	point9	9	2,291.0	444.5	300.00				Average	
		point10	10	2,291.4	-206.3	300.00					
Covello St - w. of Tyrone Av	28.0	point13	13	2,286.4	465.1	300.00				Average	
		point6	6	910.4	465.1	300.00					
Hazeltine Ave s. of Covello St	45.0	point14	14	3,607.8	461.4	300.00				Average	
		point3	3	3,607.5	-224.4	300.00					

Dudek **8 August 2019**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **PN 8584 / 13**
RUN: **LADWP Mid Valley Facility - Yr 2026**

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Hazeltine Ave n. of Covello St	point1	1	98	30	2	30	1	30	0	0	0	0
	point2	2										
Covello St - Hazeltine Ave to Tyrone Av	point4	4	616	30	13	30	6	30	0	0	0	0
	point5	5										
Tyrone Ave n. of Covello St.	point7	7	121	30	3	30	1	30	0	0	0	0
	point8	8										
Tyrone Ave s. of Covello St.	point9	9	122	30	3	30	1	30	0	0	0	0
	point10	10										
Covello St - w. of Tyrone Av	point13	13	677	30	14	30	7	30	0	0	0	0
	point6	6										
Hazeltine Ave s. of Covello St	point14	14	619	30	13	30	6	30	0	0	0	0
	point3	3										

Dudek						**8 August 2019**					
MG						**TNM 2.5**					
INPUT: RECEIVERS											
PROJECT/CONTRACT:	**PN 8584 / 13**										
RUN:	**LADWP Mid Valley Facility - Yr 2026**										
Receiver											
Name	**No.**	**#DUs**	**Coordinates (ground)**			**Height**	**Input Sound Levels and Criteria**				**Active**
			X	**Y**	**Z**	**above**	**Existing**	**Impact Criteria**		**NR**	**in**
						Ground	**LAeq1h**	**LAeq1h**	**Sub'l**	**Goal**	**Calc.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M3	1	1	1,105.8	416.5	300.00	5.00	0.00	66	10.0	8.0	Y
M1	2	1	2,432.4	410.5	300.00	5.00	0.00	66	10.0	8.0	Y
Hazeltine Ave s. of Covello St.	3	1	3,554.2	301.3	300.00	5.00	0.00	66	10.0	8.0	Y
Tyrone Ave s. of Covello St.	4	1	2,347.9	251.8	300.00	5.00	0.00	66	10.0	8.0	Y
M2	6	1	3,521.2	408.9	300.00	5.00	0.00	66	10.0	8.0	Y

Dudek 8 August 2019
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 8584 / 13
RUN: LADWP Mid Valley Facility - Yr 2026

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per Unit Area	$ per Unit Vol.	Top Width	Run:Rise	$ per Unit Length			X	Y	Z	at Point	Seg Ht Incre-ment	#Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
5' Wall	W	0.00	99.99	0.00				0.00	point1	1	2,252.5	426.4	300.00	5.00	0.00	0	0		
									point2	2	956.6	426.4	300.00	5.00					
Barrier2	W	0.00	99.99	0.00				0.00	point3	3	3,556.3	424.8	300.00	5.00	0.00	0	0		
									point4	4	2,345.1	424.8	300.00	5.00					

Dudek
MG
8 August 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 8584 / 13
RUN: LADWP Mid Valley Facility - Yr 2026
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M3	1	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
M1	2	1	0.0	55.7	66	55.7	10	----	55.7	0.0	8	-8.0
Hazeltine Ave s. of Covello St.	3	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
Tyrone Ave s. of Covello St.	4	1	0.0	54.0	66	54.0	10	----	54.0	0.0	8	-8.0
M2	6	1	0.0	58.2	66	58.2	10	----	58.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**8 August 2019**						
MG					**TNM 2.5**						
INPUT: ROADWAYS							**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**PN 8584 / 13**						**a State highway agency substantiates the use**				
RUN:	**LADWP Mid Valley Facility - Yr 2026wPrj**						**of a different type with the approval of FHWA**				
Roadway		**Points**									
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**	
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft		mph	%		
Hazeltine Ave n. of Covello St	45.0	point1	1	3,608.2	1,218.9	300.00				Average	
		point2	2	3,607.8	461.4	300.00					
Covello St - Hazeltine Ave to Tyrone Av	28.0	point4	4	3,593.2	465.1	300.00				Average	
		point5	5	2,286.4	465.1	300.00					
Tyrone Ave n. of Covello St.	45.0	point7	7	2,290.1	482.3	300.00				Average	
		point8	8	2,290.5	1,023.9	300.00					
Tyrone Ave s. of Covello St.	45.0	point9	9	2,291.0	444.5	300.00				Average	
		point10	10	2,291.4	-206.3	300.00					
Covello St - w. of Tyrone Av	28.0	point13	13	2,286.4	465.1	300.00				Average	
		point6	6	910.4	465.1	300.00					
Hazeltine Ave s. of Covello St	45.0	point14	14	3,607.8	461.4	300.00				Average	
		point3	3	3,607.5	-224.4	300.00					

Dudek				**8 August 2019**								
MG				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**PN 8584 / 13**											
RUN:	**LADWP Mid Valley Facility - Yr 2026wPrj**											
Roadway	**Points**											
Name	**Name**	**No.**	**Segment**									
			Autos		**MTrucks**		**HTrucks**		**Buses**		**Motorcycles**	
			V	**S**	**V**	**S**	**V**	**S**	**V**	**S**	**V**	**S**
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Hazeltine Ave n. of Covello St	point1	1	102	30	2	30	5	30	0	0	0	0
	point2	2										
Covello St - Hazeltine Ave to Tyrone Av	point4	4	629	30	13	30	10	30	0	0	0	0
	point5	5										
Tyrone Ave n. of Covello St.	point7	7	290	30	6	30	3	30	0	0	0	0
	point8	8										
Tyrone Ave s. of Covello St.	point9	9	223	30	5	30	2	30	0	0	0	0
	point10	10										
Covello St - w. of Tyrone Av	point13	13	732	30	15	30	10	30	0	0	0	0
	point6	6										
Hazeltine Ave s. of Covello St	point14	14	635	30	13	30	10	30	0	0	0	0
	point3	3										

Dudek 8 August 2019
MG TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: PN 8584 / 13
RUN: LADWP Mid Valley Facility - Yr 2026wPrj

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
M3	1	1	1,105.8	416.5	300.00	5.00	0.00	66	10.0	8.0	Y
M1	2	1	2,432.4	410.5	300.00	5.00	0.00	66	10.0	8.0	Y
Hazeltine Ave s. of Covello St.	3	1	3,554.2	301.3	300.00	5.00	0.00	66	10.0	8.0	Y
Tyrone Ave s. of Covello St.	4	1	2,347.9	251.8	300.00	5.00	0.00	66	10.0	8.0	Y
M2	6	1	3,521.2	408.9	300.00	5.00	0.00	66	10.0	8.0	Y

Dudek 8 August 2019
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 8584 / 13
RUN: LADWP Mid Valley Facility - Yr 2026wPrj

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per Unit Area	$ per Unit Vol.	Top Width	Run:Rise	$ per Unit Length			X	Y	Z	at Point	Seg Ht Incre-ment	#Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
5' Wall	W	0.00	99.99	0.00				0.00	point1	1	2,252.5	426.4	300.00	5.00	0.00	0	0		
									point2	2	956.6	426.4	300.00	5.00					
Barrier2	W	0.00	99.99	0.00				0.00	point3	3	3,556.3	424.8	300.00	5.00	0.00	0	0		
									point4	4	2,345.1	424.8	300.00	5.00					

Dudek
MG
8 August 2019
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 8584 / 13
RUN: LADWP Mid Valley Facility - Yr 2026wPrj
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
M3	1	1	0.0	56.6	66	56.6	10	----	56.6	0.0	8	-8.0
M1	2	1	0.0	56.8	66	56.8	10	----	56.8	0.0	8	-8.0
Hazeltine Ave s. of Covello St.	3	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
Tyrone Ave s. of Covello St.	4	1	0.0	56.3	66	56.3	10	----	56.3	0.0	8	-8.0
M2	6	1	0.0	58.9	66	58.9	10	----	58.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

APPENDIX F

Transportation Impact Study

Transportation Impact Study
Mid Valley Water Facility, City of Los Angeles

Prepared for:

Los Angeles Department of Water and Power (LADWP)
111 N. Hope Street, Room 1044
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MARCH 2019

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1 INTRODUCTION

1.1 Purpose and Scope of the TIS

The purpose of this Transportation Impact Study (TIS) is to identify traffic impacts associated with the proposed Los Angeles Department of Water and Power (LADWP) Mid Valley Water Facility project (proposed project) in the City of Los Angeles (City). This TIS has been prepared per the *City of Los Angeles Department of Transportation (LADOT) Transportation Impact Study Guidelines (December 2016),* and per an approved Transportation Impact Study Memorandum of Understanding (MOU) by LADOT. A copy of the approved MOU is provided in Appendix A.

The objectives of this TIS are:

- Document existing traffic conditions, including intersection levels of service in the study area;
- Estimate trip generation, distribution, and assignment characteristics for the proposed project;
- Analyze the traffic impacts that would occur as a result of project traffic under the Existing and Future 2023 conditions;
- Describe the significance of the potential impacts under the Existing and Future 2023 conditions;
- Identify mitigation measures for any significantly impacted transportation facilities;
- Describe the adequacy of project access locations; and,
- Describe active transportation and transit facilities in the vicinity of the project site.

Dudek analyzed study area intersections for the following study scenarios:

Existing Condition

The TIS includes a description of existing traffic conditions in the site vicinity, including the existing roadway system, existing weekday AM and PM peak hour traffic volumes, and traffic operations. The existing condition is representative of the year 2018.

Existing plus Project

This condition includes analysis of traffic operations under existing conditions with project-related traffic added to the existing AM and PM peak hour traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining project's significant impacts.

Future 2023

The Future 2023 scenario includes a description of traffic conditions and operations within a short-term horizon period where the proposed project is constructed and fully occupied. An ambient annual growth factor of 0.54% based on the Los Angeles County Congestion Management Program for the region in which the project is located was applied to the existing year (2018) traffic volumes over the course of five years to estimate future baseline traffic volumes in the year 2023.

Along with ambient growth, traffic generated by other approved and pending projects in the study area was also added to existing traffic volumes. These approved or pending projects are developments in the review process, but not fully approved; or, projects that have been approved, but not fully constructed or occupied. Although traffic from all these projects is estimated in the cumulative trip generation summary for future projects, only a reasonable percentage that is likely to utilize the study area network is assigned to the roadway facilities analyzed in the TIS.

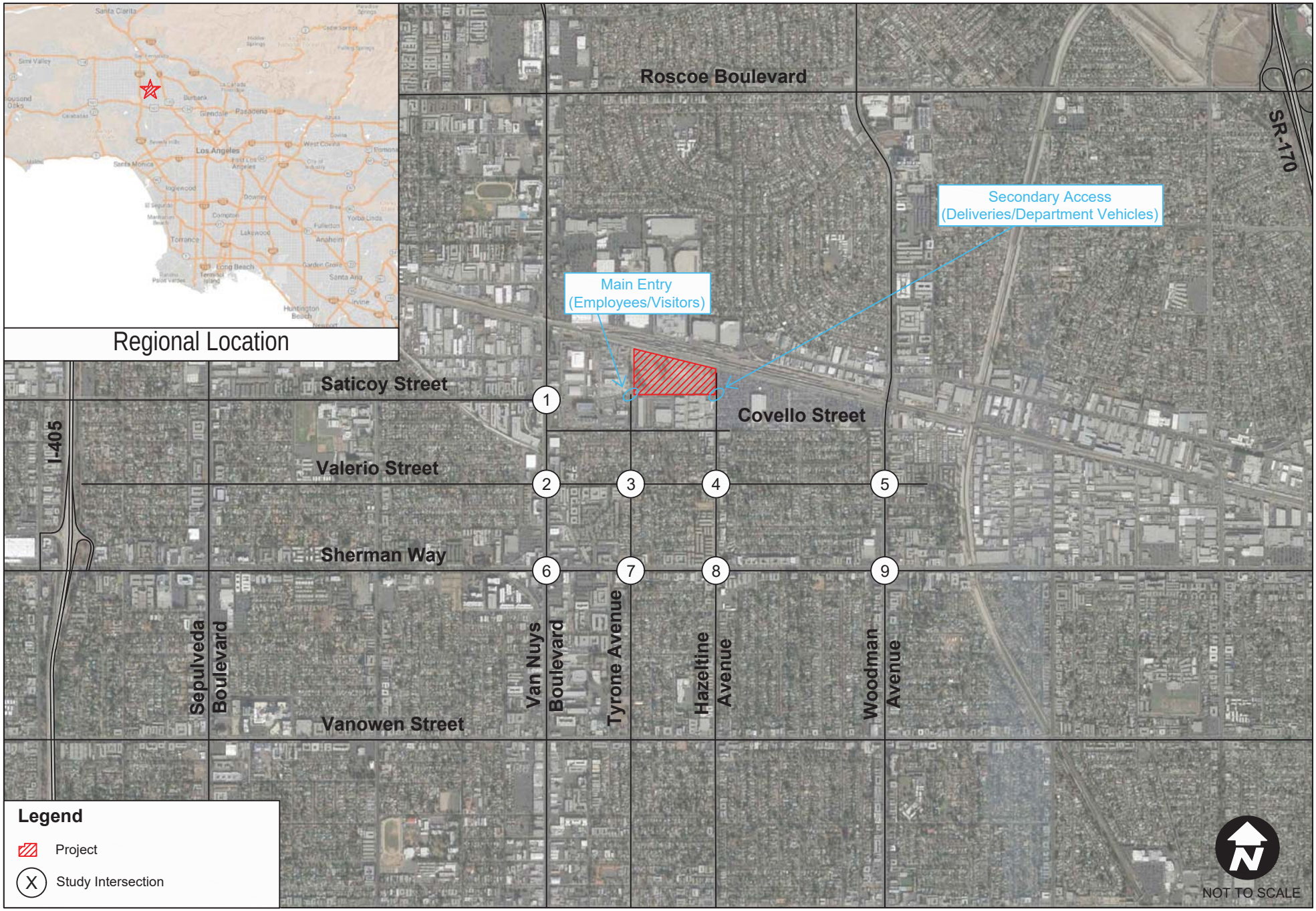
Future 2023 plus Project

This condition includes analysis of traffic operations under the Future 2023 condition (described above) with project-related traffic added to the AM and PM peak hour traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining the project's significant impacts.

1.2 Project Description, Location and Study Area

The proposed Mid Valley Water Facility site is located at 7600 North Tyrone Avenue in the Van Nuys area of the City of Los Angeles, adjacent to the existing LADWP Valley Center site occupied by the Power System. The parcel on which the Project site is primarily located is Assessor's Parcel Number 2215001913 (City of Los Angeles 2016). Figure 1 shows the project location, study area, and regional location of the project site.

The project site is approximately 17.3 acres of empty property already owned by LADWP. Access to the site would be provided from both Tyrone Avenue on the southwest and Hazeltine Avenue on the southeast, as shown in Figure 2, Preliminary Site Plan. The closest major roadway to the project site is Van Nuys Boulevard, located approximately two blocks to the west. The project site is shown in Figure 2. The project would also include improvements along approximately 323 linear feet of Hazeltine Avenue, which is a north-south City of Los Angeles roadway.



Source: Google Maps, 06/2018

FIGURE 1

Project Location and Study Area

LADWP - Mid Valley Water Facility

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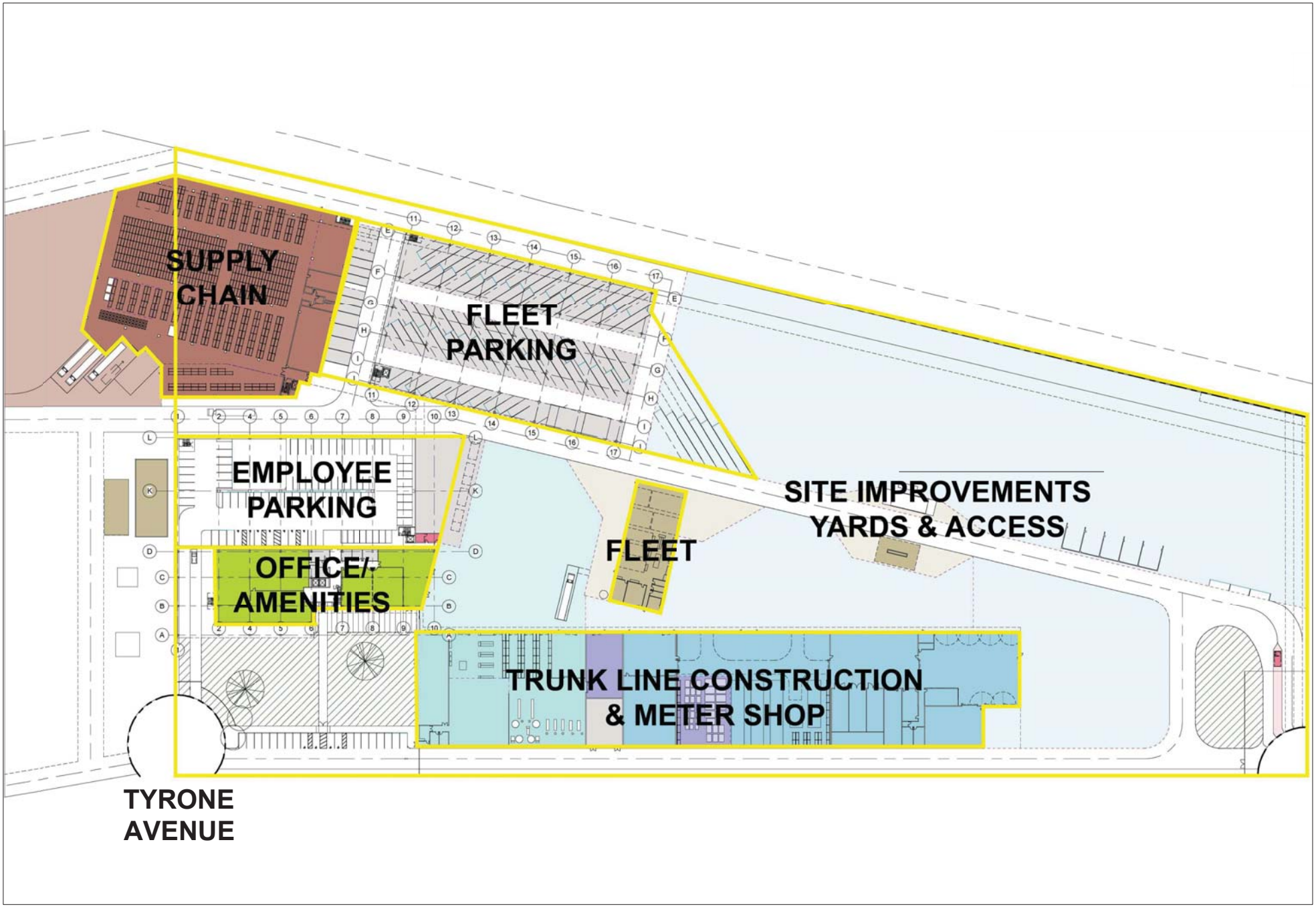

FIGURE 2

Preliminary Site Plan

LADWP - Mid Valley Water Facility

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LADWP owns this approximately 17-acre site, and a number of the water divisions are dispersed at out-of-date facilities throughout the entire San Fernando Valley; therefore, LADWP desires to consolidate all divisions onto one site. The proposed project would house the following components, as outlined in Table 1 below.

Table 1
Project Components

Building/Area	No. of Staff (year 2022)	Component/ Group/Function
Trunk Line	152	Water distribution and trunk line construction and maintenance
Meter Shop	51	Meter and Services
Main Line	114	Water main line maintenance
Emergency Operations Center/Trouble Board	34	Emergency Operation Center
Security	2	On-site security
Supply Chain Services	54	Warehouse storage
Fleet Services	9	Fleet vehicle maintenance
CNG Fueling	0	Fleet vehicle fueling
Total	416	

Source: Los Angeles Department of Water & Power, *Feasibility Study Revision B*, September 2017.

As illustrated in Figure 1, the study area is comprised of the following nine intersections segments, all within City limits:

Intersections

1. Van Nuys Boulevard/Saticoy Street (signalized)
2. Van Nuys Boulevard/Valerio Street (signalized)
3. Tyrone Avenue/Valerio Street (signalized)
4. Hazeltine Avenue/Valerio Street (signalized)
5. Woodman Avenue/Valerio Street (signalized)
6. Van Nuys Boulevard/Sherman Way (signalized)
7. Tyrone Avenue/Sherman Way (signalized)
8. Hazeltine Avenue/Sherman Way (signalized)
9. Woodman Avenue/Sherman Way (signalized)

1.3 Significance Thresholds

The study area intersections are located within the jurisdiction of the City of Los Angeles. The significance criteria for the City Los Angeles is described in the section below. The study area does not include any Caltrans facilities, therefore Caltrans criteria has not been utilized in this traffic analysis.

1.3.1 Los Angeles Department of Transportation (LADOT)

The proposed project is located within the City of Los Angeles and uses the significance criteria provided in the LADOT *Transportation Impact Study Guidelines* (December 2016). LADOT has adopted the following significance criteria to assess whether the addition of project trips would cause a significant impact on study area intersections:

A significant impact would occur if a land development project increases the volume to capacity (V/C) ratio equals or exceeds the thresholds shown in Table 2.

Table 2
Significance Criteria for Local Signalized Intersections for Development Projects

Level of Service	Final V/C Ratio	Project-Related Increase in V/C
C	0.701 to 0.800	equal to or greater than 0.040
D	0.801 to 0.900	equal to or greater than 0.020
E	0.901 to 1.000	equal to or greater than 0.010
F	Greater than 1.000	equal to or greater than 0.010

Source: LADOT, *Transportation Impact Study Guidelines*, 2016.

Per LADOT, for development projects, unsignalized intersections should be evaluated solely to determine the need for the permanent installation of a traffic signal or other traffic control device(s).

Mitigation Measures

LADOT guidelines mention if a TIS identifies project-related impacts then mitigation measures that should be considered include, Transportation Demand Management, Transit Capacity and Access Improvements, Parking Management Measures, Jobs/Housing Balance measures, Traffic signal Operational Improvements, Street Restriping, Physical Street Improvements, Fair Share Contributions, Transportation Mitigation Trust Fund etc. If mitigation measures are deemed to be infeasible, and no substitute mitigation measures (an environmentally equivalent or superior to the original measure in mitigating the project's significant impact) are feasible, then a significant transportation impact would remain. For projects with unmitigated transportation impacts, a Statement of Overriding Considerations should evaluate and consider suitable enhancements that improve quality of life in the public realm, such as non-restrictive traffic calming, traffic safety

enhancements, signal timing upgrades, and community streetscape features (e.g., lighting, landscaping, shade, sidewalk repairs etc.)

1.4 Analysis Methodology

Level of service (LOS) is commonly used as a qualitative description of roadway segments and intersection operations and is based on the design capacity of the roadway segment or intersection configuration, compared to the volume of traffic using the roadway segment or intersection.

1.4.1 Freeway Impact Analysis

Pursuant to the Freeway Impact Analysis Procedures agreement executed in October 2013 between LADOT and Caltrans District 7, as amended in December 2015, traffic studies may be required to conduct a focused freeway impact analysis in addition to the CMP analysis. Freeway mainline segments and off-ramps in the project vicinity that are forecast to receive net new project trips are subject to freeway impact analysis screening. This screening analysis is based solely on the comparisons between the expected net new project-related traffic volumes and the capacity of the subject mainline freeway segments and freeway off-ramps. Thus, cumulative conditions (i.e., related project's traffic volumes and regional growth) are not considered for purposes of the screening analysis. Based on the screening criteria included in the scoping agreement (Appendix A), the amount of peak hour project-related traffic expected to occur on the freeway system is not expected to meet the criteria for freeway impact analysis. Thus, no further analysis of potential impacts to the I-405 and SR-170 mainline freeway system or ramp intersections is required.

1.4.2 Intersection Analysis

Per City of Los Angeles Department of Transportation (LADOT) *Transportation Impact Study Guidelines* (December 2016) the intersection evaluation methodology to assess transportation impacts is based on the Transportation Research Board, Circular 212 Critical Movement Analysis (CMA) Planning Method for analyzing traffic operating conditions at study intersections. CMA is a method that determines the volume-to-capacity (V/C) ratio on a critical lane basis and the level of service associated with each V/C ratio at an intersection.

The operational characteristics of an intersection are determined by calculating the intersection's level of service (LOS). The intersection as a whole and its individual turning movements can be described alphabetically with a range of LOS (A through F), with LOS A indicating free-flow traffic and LOS F indicating extreme congestion and long vehicle delays.

Table 3
Level of Service Definitions Using Critical Movement Analysis Methodology for Signalized Intersections

Level of Service	V/C Ratio	General Description
A	≤0.600	Free flow
B	0.601 to ≤0.700	Stable flow (slight delays)
C	0.701 to ≤0.800	Stable flow (acceptable delays)
D	0.801 to ≤0.900	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	0.901 to ≤1.00	Unstable flow (intolerable delay)
F	>1.00	Forced flow (jammed)

Source: LADOT 2016.

1.4.3 Congestion Management Program Analysis

The applicable congestion management program (CMP) for the project area and the surrounding metropolitan area is the Los Angeles County Metropolitan Transportation Authority's (Metro) 2010 CMP. This program monitors and sets performance indicators for a transportation network of numerous highway segments, freeways, and key roadway intersections throughout Los Angeles County (called the CMP Highway and Roadway System). In the vicinity of the project, I-405 and SR-170 is part of the CMP Highway and Roadway System.

The CMP requires analysis of arterial monitoring intersections where a project will add 50 or more trips during either the morning peak traffic hour (AM peak hour) or evening peak traffic hour (PM peak hour) and CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips (by direction) during either the AM or PM peak hour. The CMP indicates that a project would have a significant impact if project traffic increases the volume to capacity (v/c) ratio of a facility by 0.02 or more at a facility operating at LOS F.

1.4.4 California Senate Bill 743 and Vehicle Miles Traveled Analysis

On September 27, 2013, Senate Bill (SB) 743 was signed into law, which creates a process to change the way that transportation impacts are analyzed under CEQA. SB 743 required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to level of service (LOS) for evaluating transportation impacts. Under the new transportation guidelines, LOS, or automobile delay, will no longer be considered an environmental impact under CEQA.

The updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. OPR's regulatory text indicates that a public agency may immediately commence implementation of the new transportation impact guidelines, and that the guidelines must be implemented statewide by January 1, 2020. The traffic analysis in this section relies on LOS to characterize impacts since the MOU for traffic analysis for the proposed project was approved by LADOT in November 2018, which was prior to approval of the revised CEQA Guidelines.

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2 EXISTING CONDITIONS

This section describes existing conditions within the study area. Characteristics are provided for the existing roadway system, daily roadway segment traffic volumes, peak hour traffic volumes, and traffic operations.

2.1 Roadway System

The existing traffic controls and geometrics at the study area intersections are shown in Figure 3. All the intersections identified in the study area are signalized. Characteristics of the existing street system in the study are described below.

Interstate 405 (I-405), also known as the San Diego Freeway, is a north-south, ten-lane, divided freeway located west of the project site. The posted speed limit is 65 miles per hour (mph), and interchanges in the study area are located at Sherman Way and Roscoe Boulevard.

State Route 170 (SR-170), also known as the Hollywood Freeway, is a ten-lane, divided freeway located east of the project site. The posted speed limit is 65 mph, and interchanges in the study area are located at Sherman Way and Roscoe Boulevard.

Van Nuys Boulevard is a north-south, six-lane, undivided roadway in the study area, and is designated as *Boulevard II* by the City of Los Angeles Mobility Plan 2035. The posted speed limit is 35 mph, and a two-way left turn lane (TWLTL) is located along the roadway south of Saticoy Boulevard. Parking from 8:00 am to 6:00 pm is restricted to two hours along both sides of the street.

Woodman Avenue is a north-south, six-lane, undivided roadway with a TWLTL in the study area, and is designated as *Avenue I* by the City of Los Angeles Mobility Plan 2035. The posted speed limit is 35 mph. No stopping is allowed Monday through Friday, from 3:00 pm and 6:00 pm along the east side of the street, and no stopping is allowed at any time along the west side of the street.

Tyrone Avenue is a north-south, two-lane, undivided roadway in the study area, and is designated as a *Collector Street* by the City of Los Angeles Mobility Plan 2035. The posted speed limit is 25 mph, and parking is allowed along both sides of the street.

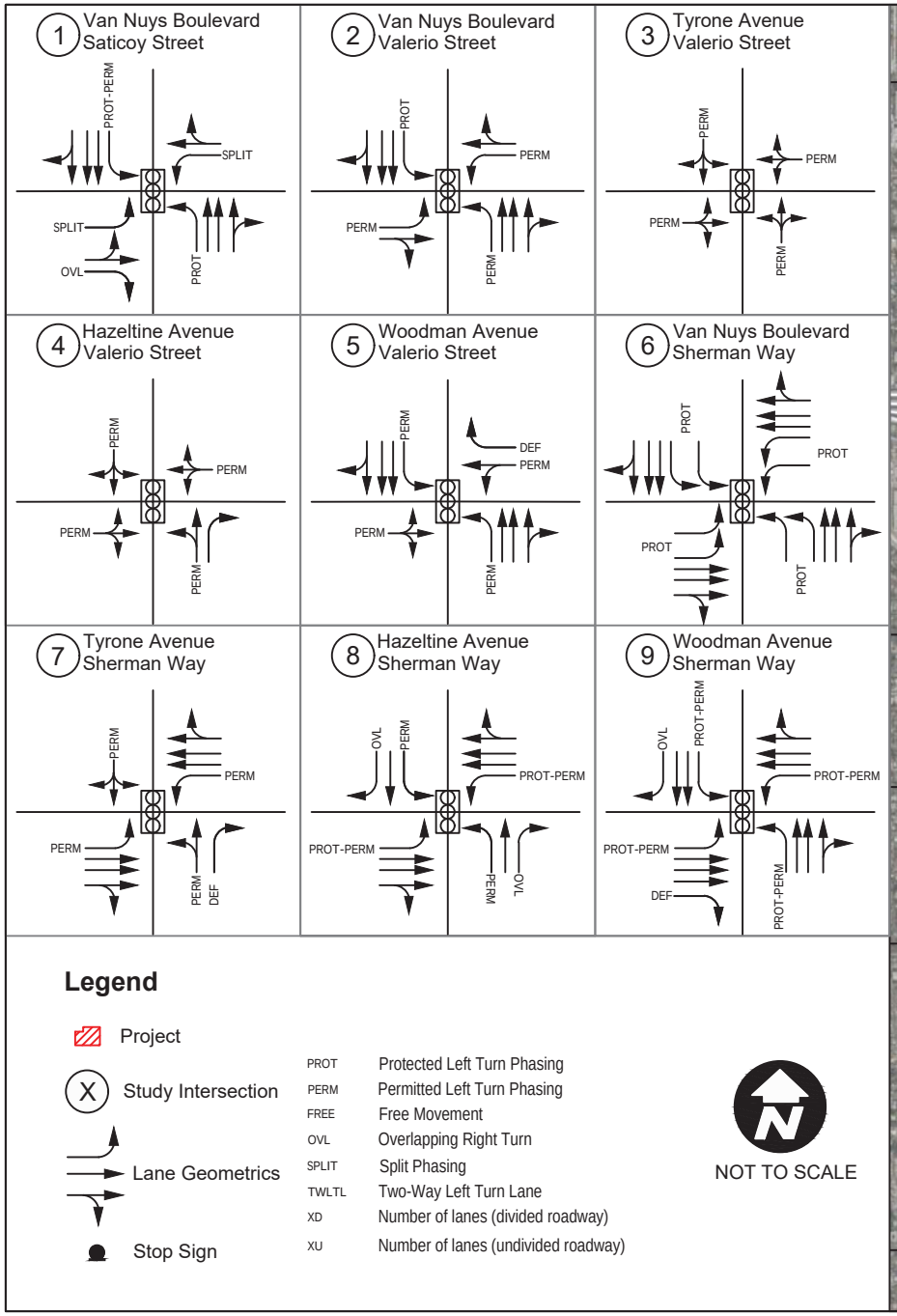
Hazeltine Avenue is a north-south, two-lane, undivided roadway in the study area, and is designated as a *Collector Street* by the City of Los Angeles Mobility Plan 2035. The posted speed limit is 25 mph, and parking is allowed along both sides of the street.

Sherman Way is an east-west, six-lane, undivided road with a TWLTL in the study area, and becomes a divided road west of Van Nuys Boulevard. Sherman Way is designated as *Boulevard II* by the City of Los Angeles Mobility Plan 2035, and the posted speed limit is 35 mph. Parking is

allowed along the west side of the street; however, no parking is allowed along the east side of the street Monday through Friday, from 4:00 pm to 7:00 pm.

Saticoy Street is an east-west, four-lane, undivided road with a TWLTL in the study area, and is designated at *Avenue II* by the City of Los Angeles Mobility Plan 2035. Saticoy Street becomes a two-lane road east of Van Nuys Boulevard, and terminates approximately 200 feet east of the intersection at a private LADWP gate. The posted speed limit is 35 mph, and parking is allowed along both sides of the street.

Valerio Street is an east-west, two-lane, undivided road in the study area, and is designated as a *Collector Street* by the City of Los Angeles Mobility Plan 2035. The posted speed limit is 30 mph, and parking is allowed along both sides of the street.



Source: Google Maps, 06/2018

FIGURE 3

Existing Intersection Controls and Geometrics

LADWP - Mid Valley Water Facility

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2.2 Transit System

The Los Angeles County Metropolitan Transportation Authority (Metro) and LADOT – DASH provide public transit service (bus and rail) within the service area. The project is located approximately 0.75 miles from the Van Nuys Amtrak/Metrolink station. The following routes serve the study area:

Metrolink

- **Ventura County Line** provides service from Oxnard to the Los Angeles Union Station every 40 to 120 minutes during peak frequency.

Amtrak

- **Pacific Surfliner** provides service from San Luis Obispo to San Diego every 10 to 120 minutes during peak frequency.

Metro (bus)

- **Route 744** provides service from Northridge/Pacoima to Sherman Oaks along Van Nuys Boulevard, Reseda Boulevard, and Ventura Boulevard. Peak service frequency averages approximately 20 minutes.
- **Route 788** provides service from Arleta to West Los Angeles along Van Nuys Boulevard and I-405. Peak service frequency averages approximately 15 minutes.
- **Route 233** provides service from Lakeview Terrace to Sherman Oaks along Van Nuys Boulevard. Peak service frequency averages approximately 12 to 15 minutes.
- **Route 169** provides service from Bob Hope Airport to Woodland Hills along Saticoy Street and Van Nuys Boulevard. This route runs every hour during peak frequency.
- **Route 656** provides service from Mission Hills to Hollywood along Van Nuys Boulevard, Burbank Boulevard, Chandler Boulevard, and Cahuenga Boulevard. This route runs every hour during peak frequency.
- **Route 162/163** provides service from Sun Valley to West Hills along Sherman Way and Lankershim Boulevard. Peak service frequency ranges from 11 to 45 minutes.

LADOT – DASH

- **Panorama City/Van Nuys** offers neighborhood shuttle service within and between Panorama City and Van Nuys via Van Nuys Boulevard, Sepulveda Boulevard, Saticoy Street, and Sherman Way. Service averages approximately 20 minutes during peak frequency.

2.3 Pedestrian and Bicycle Facilities

2.3.1 Pedestrian Facilities

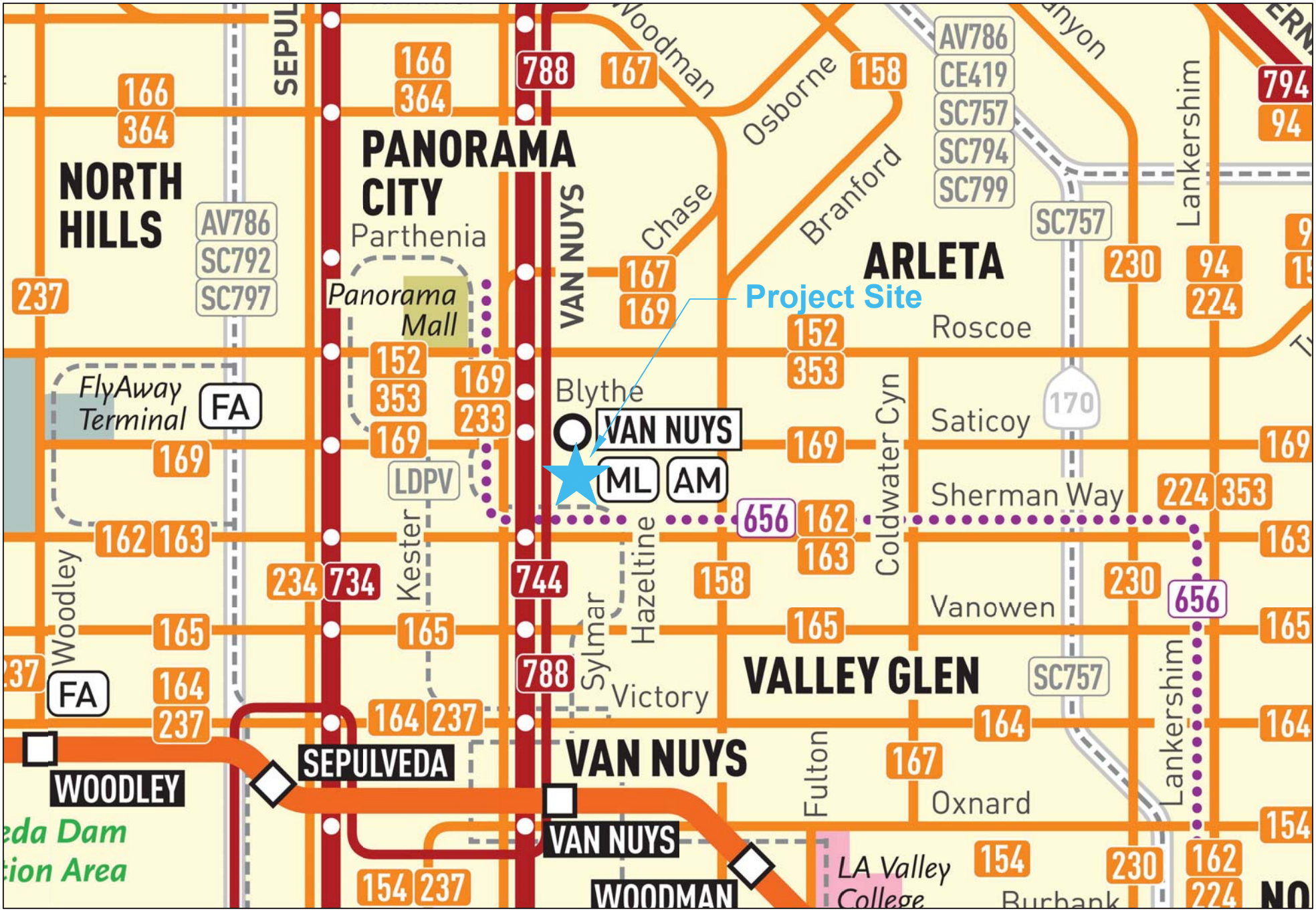
The study area serves many active transportation users due to its proximity to the Van Nuys Amtrak and Metrolink train station. Tyrone Avenue has paved sidewalk along its eastern side, whereas Hazeltine Avenue has intermittent sidewalk along its western side in the vicinity of the project site. All other study area roadways are constructed with curbs, gutters, and sidewalks along both sides of all streets within the study area with the exception of Valerio Street, which consists of intermittent sidewalk segments. The majority of Van Nuys Boulevard and stretches of Sherman Way and Saticoy Street are identified as Pedestrian-Enhanced Districts (PEDs) within the study area by the City of Los Angeles Mobility Plan 2035. PEDs are areas identified by the City of Los Angeles where "pedestrian improvements on arterial streets could be prioritized to provide better walking connections within communities."

2.3.2 Bicycle Facilities

Within the study area, only Woodman Avenue has designated bicycle facilities, and is classified as a Tier 2 Bicycle Lane by the City of Los Angeles Mobility Plan 2035. Additionally, Van Nuys Boulevard and Sherman Way are identified as Tier 1 Protected Bicycle Lanes as part of the Bicycle Enhanced Network (BEN). BEN is a network of streets identified by the City of Los Angeles Mobility Plan 2035 that would be enhanced to prioritize bicyclists.

2.4 Traffic Volumes

Existing weekday peak hour turn movement counts at the study intersections were conducted in December 2018, during a typical non-holiday week while area schools were in-session. Peak hour turn volumes were adjusted using appropriate Passenger Car Equivalent (PCE) factors to account for number of heavy vehicles in the existing traffic stream. Raw traffic count worksheets and PCE adjusted worksheets are provided in Appendix B. This analysis focuses on the weekday daily, AM (7:00 a.m. to 10:00 a.m.) and the PM (3:00 p.m. to 6:00 p.m.) peak periods. The peak periods represent the highest volume of traffic for the adjacent street system. Existing weekday AM and PM peak hour volumes are summarized on Figure 5.



Source: LA Metro, 09/2018

FIGURE 4

Existing Transit Facilities

LADWP - Mid Valley Water Facility

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2.5 Intersection Operations

An intersection LOS analysis was prepared for the existing conditions using the CMA methodologies discussed in Section 1.4.2. Table 4 shows the results of the existing conditions LOS analysis. LOS worksheets are provided in Appendix C.

Table 4
Existing Weekday Peak Hour Intersection LOS

No.	Intersection	LOS Method	AM Peak		PM Peak	
			V/C[1]	*LOS*[2]	*V/C*[1]	*LOS*[2]
1	Van Nuys Boulevard/Saticoy Street	CMA	0.711	C	0.764	C
2	Van Nuys Boulevard/Valerio Street	CMA	0.562	A	0.614	B
3	Tyrone Avenue/Valerio Street	CMA	0.258	A	0.273	A
4	Hazeltine Avenue/Valerio Street	CMA	0.593	A	0.548	A
5	Woodman Avenue/Valerio Street	CMA	0.809	D	0.631	B
6	Van Nuys Boulevard/Sherman Way	CMA	0.660	B	0.763	C
7	Tyrone Avenue/Sherman Way	CMA	0.464	A	0.439	A
8	Hazeltine Avenue/Sherman Way	CMA	0.764	C	0.707	C
9	Woodman Avenue/Sherman Way	CMA	0.892	D	0.849	D

Source: Dudek, 2019
CMA = LADOT CMA Methodology
1 Volume-to-Capacity (V/C) ratio
2 Level of Service (LOS)

As shown in the table, all of the study area intersections are currently operating at LOS D or better under existing conditions, during both peak hours.

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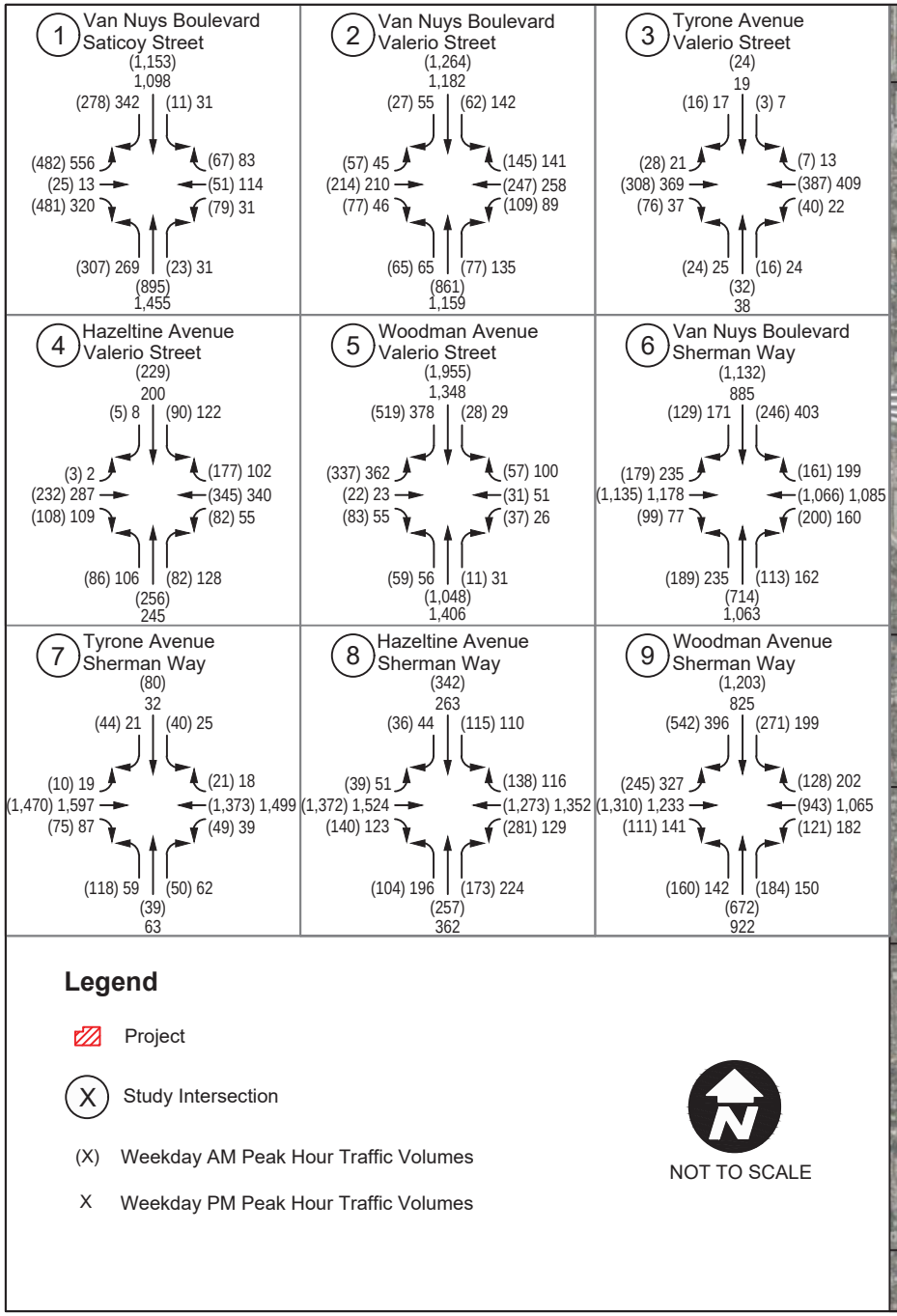

Source: Google Maps, 06/2018

FIGURE 5

Existing Traffic Volumes

LADWP - Mid Valley Water Facility

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3 PROJECT TRAFFIC

This section documents the trip generation, distribution, and assignment of project traffic.

3.1 Trip Generation

Trip generation for the proposed project is based on the number of employees (a total of 416 staff estimated for the year 2022) that are proposed to occupy various components of the facility (shown in Table 1). Trip generation estimates for the proposed project are based on daily and AM and PM peak hour trip generation rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition* (2017). Trip generation estimates for the project are based on the trip generation rate per employee for utility land use. A utility use is defined by ITE as a "free-standing building that can house office space, a storage area, and electromechanical or industrial equipment that support a local electrical, communication, water supply or control, or sewage treatment utility."

Trip generation rates and resulting trip generation estimates for the project are summarized in Table 5.

Table 5
Proposed Mid Valley Water Facility Trip Generation Summary

ITE Trip Generation Rates								
			AM Peak Hour			PM Peak Hour		
Land Use	*Size/Unit*	*Daily*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Utility (ITE 170)	per employee	4.11	0.57	0.13	0.70	0.11	0.65	0.76
Trip Generation								
Mid Valley Water Facility	416 employees	1,710	236	55	291	47	269	316
Transit Reduction (15% Daily/AM,PM)[1]		*-256*	*-35*	*-8*	*-44*	*-7*	*-40*	*-47*
Off-Peak Employee Trip Reduction (15% AM/PM)[2]		*0*	*-30*	*-7*	*-37*	*-6*	*-34*	*-40*
NET Trip Generation		1,453	170	40	210	34	194	229

Notes:
Trip rates from the Institute of Transportation Engineers (ITE), Trip Generation, 10th Edition, 2017.
1 15% Transit Reduction assumed given the project's proximity to transit service including Van Nuys Amtrak/Metrolink station, Metro and LADOT Dash bus lines.
2 15% Off-Peak employee trip reduction as approximately 15% of all employees are anticipated to begin work before 7:00 am and leave work before 3:00 pm, and therefore commute outside of the AM and PM peak periods.

As shown in the Table 5, the project would generate 1,710 daily trips, 291 AM peak hour trips (236 inbound and 55 outbound), and 316 trips during the PM peak hour (47 inbound and 269 outbound).

However, after applying a transit reduction due to the project's proximity to transit service and an off-peak employee reduction to account for workers commuting outside the standard AM and PM peak hours, the project would generate approximately 1,453 net daily trips, 210 AM peak hour net trips (170 inbound and 40 outbound), and 229 net trips during the PM peak hour (34 inbound and 194 outbound).

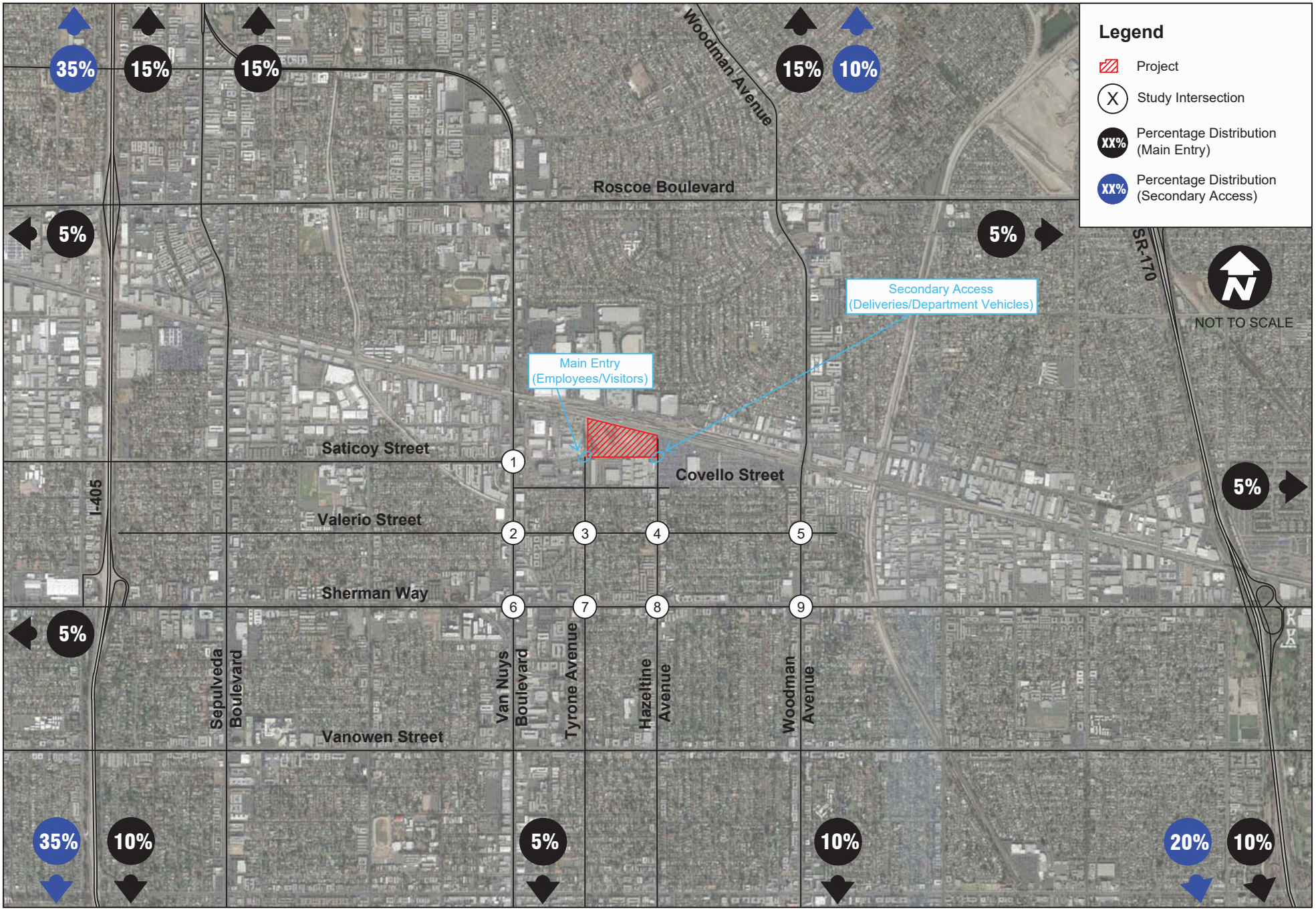
3.2 Trip Distribution and Assignment

Project trip distribution percentages were based on logical travel paths to commute corridors in the study area as well as analysis of employee data provided by LADWP. City staff approved the project's trip distribution percentages prior to the initiation of the traffic analysis, and a copy of the approved MOU is provided in Appendix A.

As shown in Figure 6, approximately 45% of the traffic would access the project site from the north, 35% would access from the south, and 10% from the east, and 10% from the west of the project site.

A majority of project traffic would consist of employees and visitors. Therefore, 90% of project traffic was assumed to access the project site at the main entry proposed at Tyrone Avenue. The remaining 10% of project traffic would comprise of delivery and service vehicles and would utilize the secondary project access off Hazeltine Avenue. The delivery and department vehicle trips were mainly distributed onto the nearby freeway corridors (I-405 and SR-170).

Project trips were assigned to the study area intersections by applying the project trip generation estimates to the trip distribution percentages at each study area intersection. The resulting project trip assignment for project traffic is shown in Figure 7.



Source: Google Maps, 06/2018

FIGURE 6

Project Trip Distribution

LADWP - Mid Valley Water Facility

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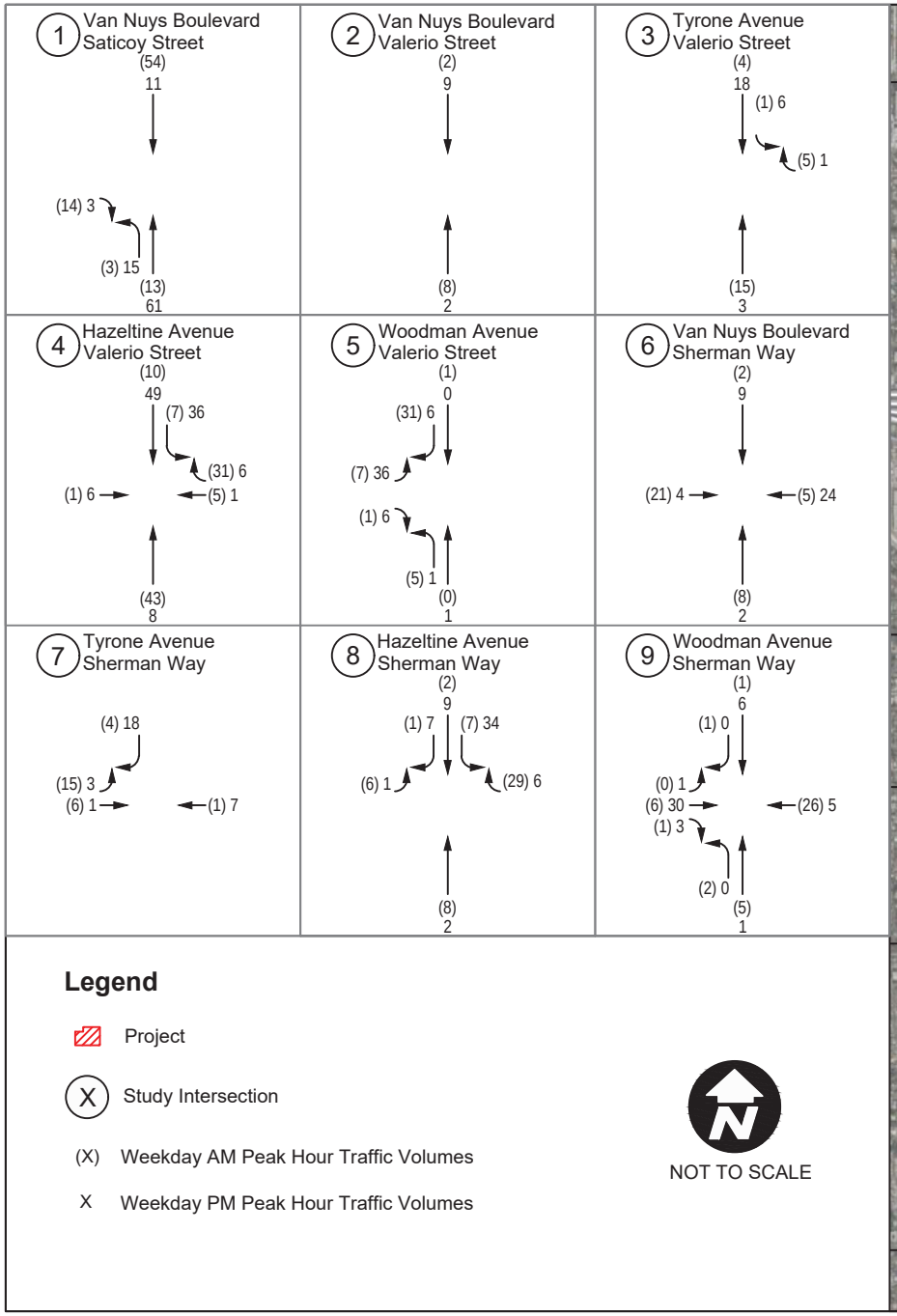

Source: Google Maps, 06/2018

FIGURE 7

Project Trip Assignment

LADWP - Mid Valley Water Facility

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4 EXISTING PLUS PROJECT CONDITIONS

This section describes project-specific impacts under Existing plus Project conditions within the study area for intersection operations, and analyzes significance based on the LADOT significance criteria.

4.1 Traffic Volumes

Project traffic volumes shown in Figure 7 were added to the Existing traffic volumes shown in Figure 5 to derive the Existing plus Project traffic condition. Figure 8 shows the Existing plus Project traffic volumes.

4.2 Intersection Operations

An intersection LOS analysis was prepared for the Existing plus Project condition using the CMA methodology. Table 6 summarizes the results of the Existing plus Project intersection analysis for the AM and PM peak hours. Detailed LOS calculation worksheets are included in Appendix C.

As shown in Table 6, all of the study area intersections are forecast to operate at LOS D or better, under Existing plus Project conditions. In addition, the V/C increases created by the proposed project would not create a significant impact per LADOT significance criteria shown in Table 2. Therefore, the project would not have a significant impact at any of the study area intersections under Existing plus Project conditions.

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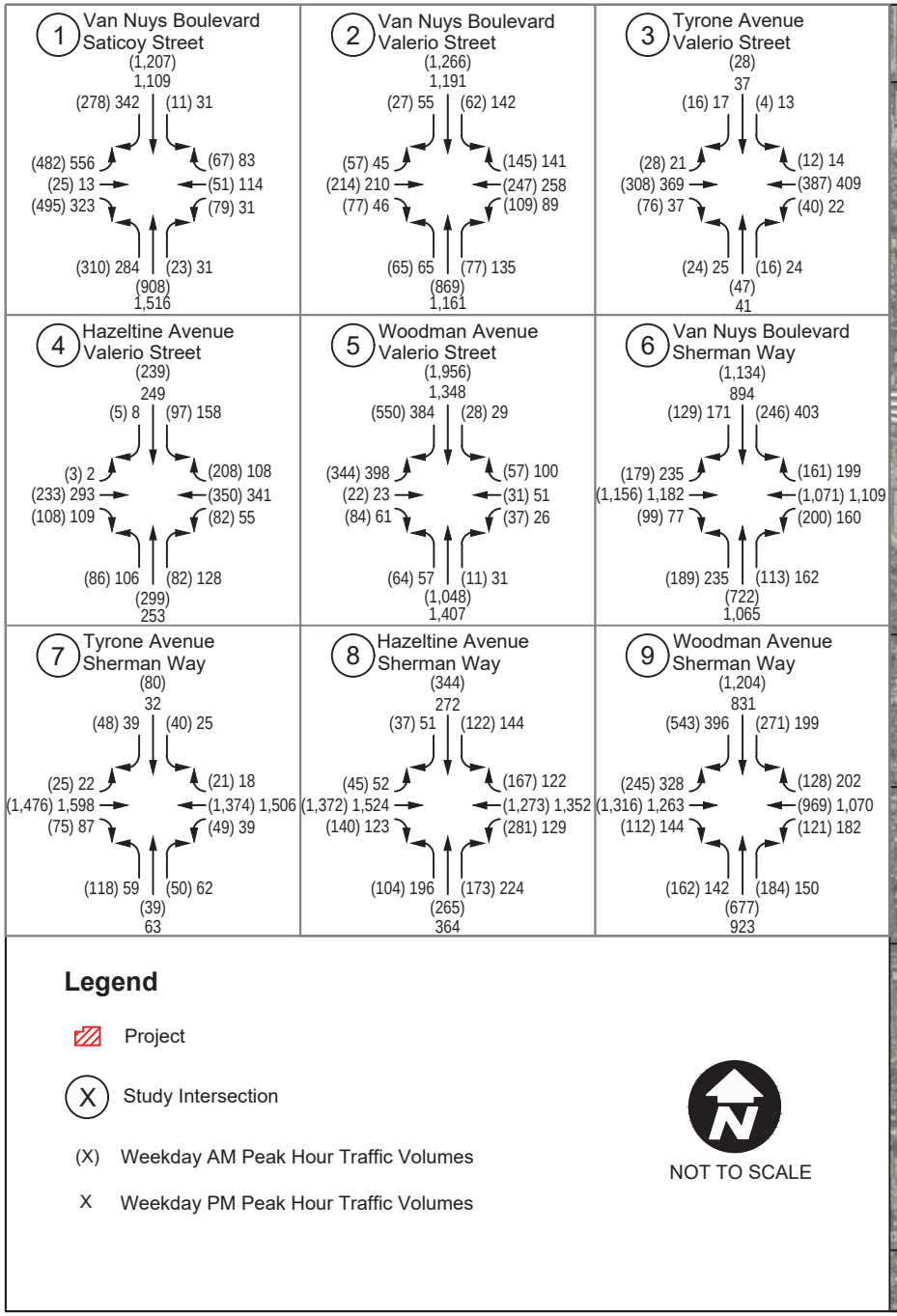

Source: Google Maps, 06/2018

FIGURE 8

Existing plus Project Traffic Volumes

LADWP - Mid Valley Water Facility

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Table 6
Existing plus Project Peak Hour Intersection Level of Service

No.	Intersection	LOS Method	Existing				Existing plus Project				Change in V/C		Significant Impact?	
			AM Peak		*PM Peak*		*AM Peak*		*PM Peak*					
			Delay[1]	*LOS*[2]	*Delay*[1]	*LOS*[2]	*Delay*[1]	*LOS*[2]	*Delay*[1]	*LOS*[2]	*AM*	*PM*	*AM*	*PM*
1	Van Nuys Boulevard/Saticoy Street	CMA	0.711	C	0.764	C	0.726	C	0.777	C	0.015	0.013	No	No
2	Van Nuys Boulevard/Valerio Street	CMA	0.562	A	0.614	B	0.563	A	0.614	B	0.001	0.000	No	No
3	Tyrone Avenue/Valerio Street	CMA	0.258	A	0.273	A	0.272	A	0.279	A	0.014	0.006	No	No
4	Hazeltine Avenue/Valerio Street	CMA	0.593	A	0.548	A	0.650	B	0.585	A	0.057	0.037	No	No
5	Woodman Avenue/Valerio Street	CMA	0.809	D	0.631	B	0.824	D	0.661	B	0.015	0.030	No	No
6	Van Nuys Boulevard/Sherman Way	CMA	0.660	B	0.763	C	0.666	B	0.770	C	0.006	0.007	No	No
7	Tyrone Avenue/Sherman Way	CMA	0.464	A	0.439	A	0.468	A	0.440	A	0.004	0.001	No	No
8	Hazeltine Avenue/Sherman Way	CMA	0.764	C	0.707	C	0.765	C	0.732	C	0.001	0.025	No	No
9	Woodman Avenue/Sherman Way	CMA	0.892	D	0.849	D	0.900	D	0.853	D	0.008	0.004	No	No

Source: Dudek 2019
Note: CMA = LADOT CMA Methodology; BOLD value indicates unsatisfactory LOS
1 Volume-to-Capacity (V/C) ratio
2 Level of Service (LOS)

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5 FUTURE 2023 CONDITIONS

This section presents the analysis of future traffic conditions that was conducted for the horizon year (2023) where the proposed project is fully occupied. The Future 2023 conditions are based on the addition of traffic from approved and pending projects in the study area, along with application of an ambient growth factor to the existing 2018 traffic volumes.

5.1 Cumulative Projects

The cumulative projects are projects that are proposed and in the review process, but not yet fully approved; or, projects that have been approved, but not fully constructed or occupied. Based on review of the Los Angeles Department of City Planning, Case Reports, thirteen cumulative development projects that may add traffic to the project study area were identified.

Figure 9 shows the locations, and Table 7 provides the trip generation of these cumulative projects. Brief descriptions of all cumulative projects are provided in the LADOT MOU in Appendix A.

5.1.1 Trip Generation

As described above, cumulative projects were identified from review of the Los Angeles Department of City Planning, Case Reports. Trip generation rates provided by the Institute of Engineers (ITE) *Trip Generation*, 10th Edition, were applied to all cumulative projects and total trip generation is shown in Table 7. As shown in the table, cumulative projects are forecast to generate approximately 7,273 daily trips, 403 AM peak hour trips, and 642 PM peak hour trips.

5.1.2 Trip Distribution and Assignment

Trip distributions and assignments for the cumulative projects were developed assuming logical commute corridors. The trips generated by the cumulative projects were distributed and assigned through the study area network.

5.2 Traffic Volumes

Future 2023 traffic volumes include traffic from ambient growth, and traffic from the addition of cumulative projects in the vicinity of the project. A growth rate of 0.54% per year, provided in the "General Traffic Volume Growth Factors" (from the respective Regional Statistical Area #12 – RSA) found in Exhibit D-1 of the Los Angeles County Congestion Management Program (CMP) (Metro 2010) was applied to the existing traffic volumes to account for the Future 2023 conditions. In addition, traffic from cumulative (approved/pending but not yet constructed) projects in the vicinity of the project was also added to the study area intersections. Figure 10 illustrates the Future 2023 (no project) traffic volumes for peak hour conditions.

Table 7
Cumulative Projects Trip Generation Summary

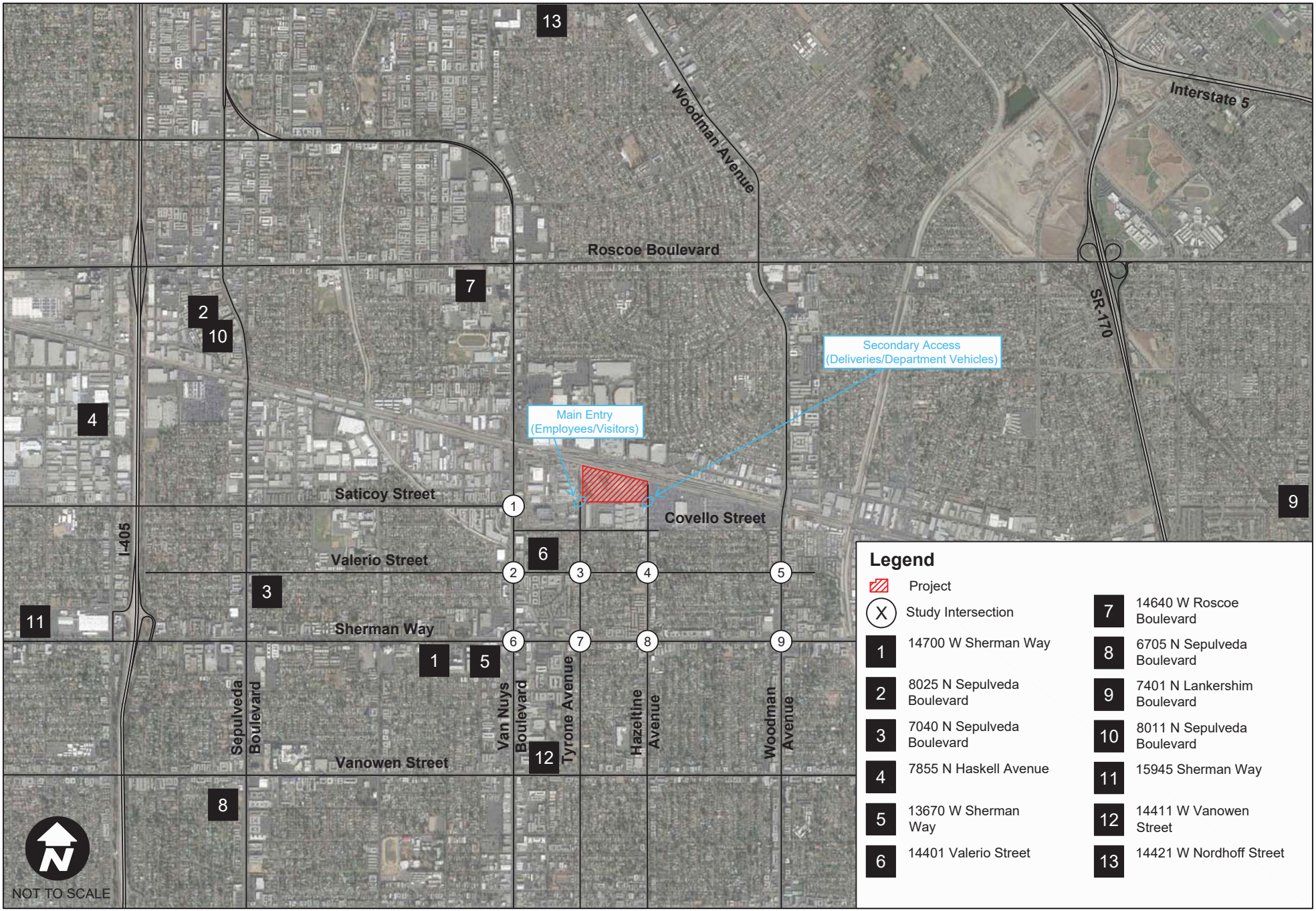
No.	Project	Size/Units		Daily Trips	AM Peak Hour			PM Peak Hour		
					In	*Out*	*Total*	*In*	*Out*	*Total*
Cumulative Projects Trip Generation										
1	14700 W Sherman Way 91405	58	DU	548	11	32	43	36	21	57
2	8025 N Sepulveda Blvd 91402	67	DU	364	6	18	24	18	11	29
3	7040 N Sepulveda Blvd 91405	2	TSF	1,036	45	43	88	37	34	72
4	7855 N Haskell Ave 91406	148	TSF	224	9	6	15	12	13	25
5	13670 W Sherman Way 91405	15	TSF	1,614	30	27	57	76	76	152
6	14401 Valerio Street 91405	7	DU	66	1	4	5	4	3	7
7	14640 W Roscoe Blvd 91402	19	TSF	2,008	43	29	72	89	85	174
8	6705 N Sepulveda Blvd 91411	30	DU	283	6	17	22	19	11	30
9	7401 N Lankershim Blvd 91605[1]	108	DU	588	10	29	39	29	19	48
10	8011 N Sepulveda Blvd 91402[2]	32	DU	174	3	9	12	9	5	14
11	15945 Sherman Way 91406	5	DU	47	1	3	4	3	2	5
12	14411 W Vanowen Street 91405	22	DU	161	2	8	10	8	5	12
13	14421 W Nordhoff Street 91402	17	DU	160	3	9	13	11	6	17
Total Cumulative Project Trip Generation				7,273	171	233	403	350	292	642

Notes: TSF = Thousand Square Feet, DU = Dwelling Units

Trip rates from the Institute of Transportation Engineers, Trip Generation, 10th Edition, 2017.

1 Square footage not available for the commercial component of this project. Additionally, the Mid-Rise Residential with 1st-Floor Commercial trip rate (ITE Code 231) was not used due to small sample size.

2 Description of project includes demolition of commercial building; however, no reductions were taken into consideration for the existing land use as aerial footage indicates demolition occurred before existing traffic counts were collected



Source: Google Earth, 06/2018

FIGURE 9

Locations of Cumulative Projects

LADWP - Mid Valley Water Facility

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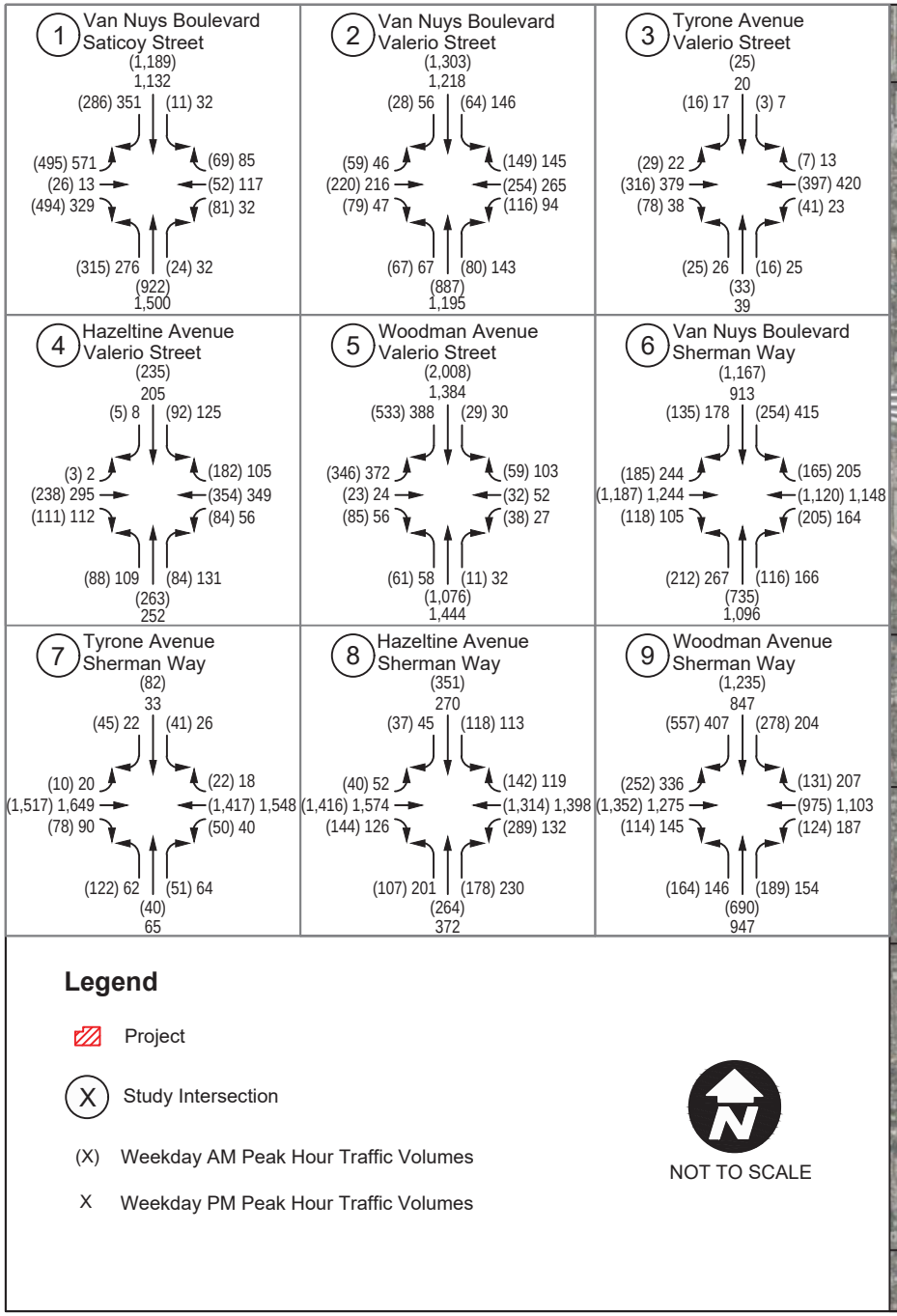

Source: Google Maps, 06/2018

FIGURE 10

Future 2023 Traffic Volumes

LADWP - Mid Valley Water Facility

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5.3 Intersection Operations

An intersection LOS analysis was prepared for the Future 2023 baseline condition using the CMA methodology. Table 8 summarizes the results of the Future 2023 intersection analysis for the AM and PM peak hours. Detailed LOS calculation worksheets are included in Appendix C.

Table 8
Future 2023 Peak Hour Intersection Level of Service

No.	Intersection	LOS Method	AM Peak Hour		PM Peak Hour	
			Delay[1]	*LOS*[2]	*Delay*[1]	*LOS*[2]
1	Van Nuys Boulevard/Saticoy Street	CMA	0.734	C	0.787	C
2	Van Nuys Boulevard/Valerio Street	CMA	0.583	A	0.635	B
3	Tyrone Avenue/Valerio Street	CMA	0.268	A	0.283	A
4	Hazeltine Avenue/Valerio Street	CMA	0.611	B	0.566	A
5	Woodman Avenue/Valerio Street	CMA	0.833	D	0.653	B
6	Van Nuys Boulevard/Sherman Way	CMA	0.699	B	0.797	C
7	Tyrone Avenue/Sherman Way	CMA	0.481	A	0.458	A
8	Hazeltine Avenue/Sherman Way	CMA	0.789	C	0.732	C
9	Woodman Avenue/Sherman Way	CMA	0.920	E	0.877	D

Source: Dudek 2019
Note: CMA = LADOT CMA Methodology; BOLD value indicates unsatisfactory LOS
1 Volume-to-Capacity (V/C) ratio
2 Level of Service (LOS)

As shown in Table 8, all of the study area intersections, except the Woodman Avenue/Sherman Way intersection, are forecast to continue to operate at LOS D or better, under Future 2023 conditions during both peak hours. The Woodman Avenue/Sherman Way intersection operates at LOS E during the AM peak hour and at LOS D during the PM peak hour, under Future 2023 conditions.

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6 FUTURE 2023 PLUS PROJECT CONDITIONS

This section describes project impacts under Future 2023 plus Project conditions within the study area for intersection operations, and analyzes significance based on the LADOT significance criteria.

6.1 Traffic Volumes

The project trip assignment, as shown in Figure 7, was added to the Future 2023 traffic volumes, as shown in Figure 10, to derive the Future 2023 plus Project traffic volumes. Figure 11 shows the Future 2023 plus Project traffic volumes.

The existing intersection geometrics in the study area have been assumed to be maintained through the Future 2023 plus Project traffic scenario, as shown in Figure 3.

6.2 Intersection Operations

An intersection LOS analysis was prepared for the Future 2023 plus Project condition using the CMA methodology. Table 9 summarizes the results of the Future 2023 plus Project intersection analysis for the AM and PM peak hours. Detailed LOS calculation worksheets are included in Appendix C.

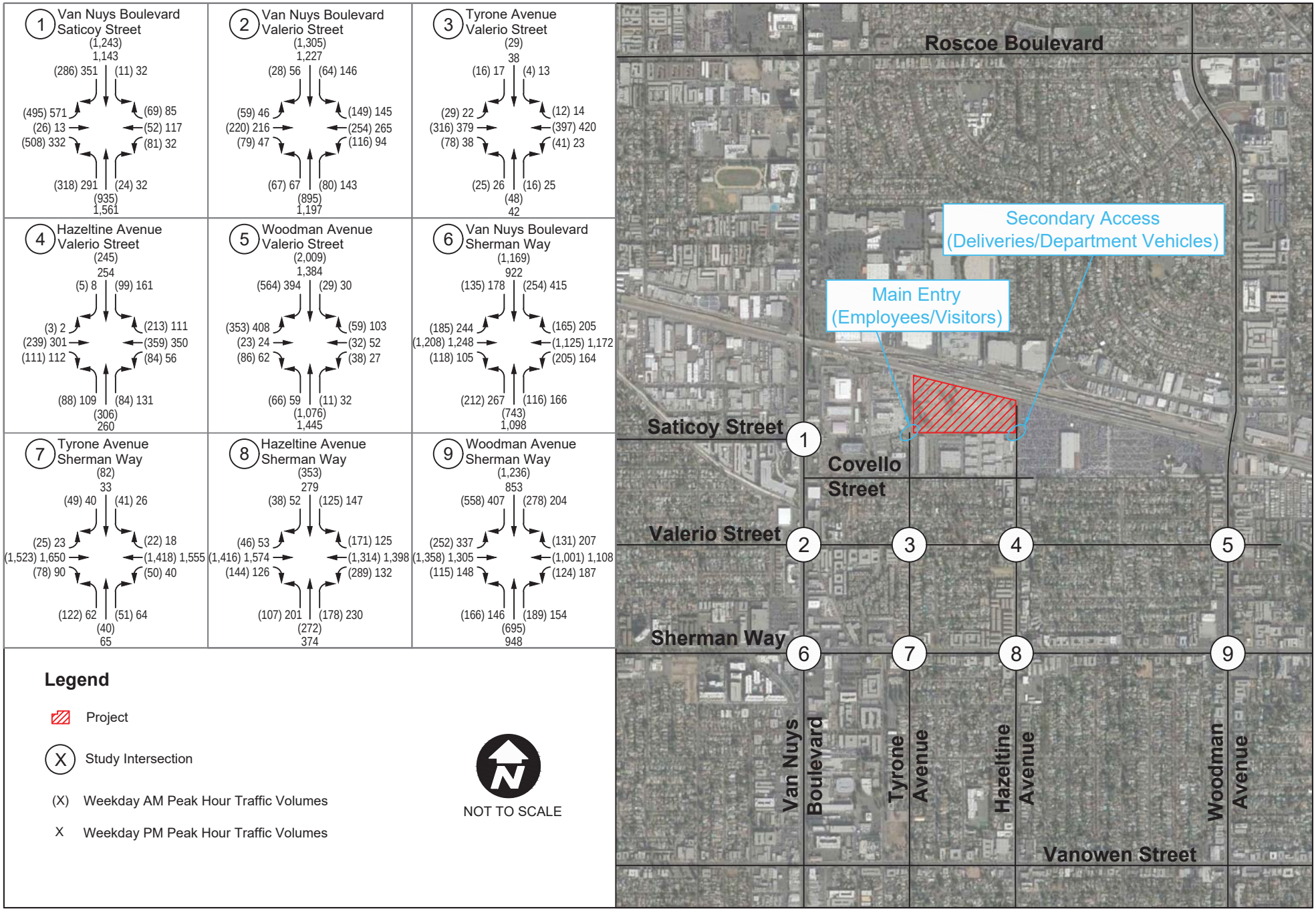
As shown in Table 9, with the exception of Woodman Avenue/Sherman Way, all of the study area intersections are forecast to operate at LOS D or better, under Future 2023 plus Project conditions. The Woodman Avenue/Sherman Way intersection continues to operate at LOS E during the AM peak hour. Since the V/C increase during the AM peak hour would be less than 0.01, the project would not have a significant impact at the Woodman Avenue/Sherman Way intersection.

Therefore, per LADOT significance criteria, the project would not have a significant impact at any of the study area intersections under Future 2023 plus Project conditions.

Table 9
Future 2023 plus Project Intersection Level of Service

No.	Intersection	LOS Method	Future 2023				Future 2023 plus Project				Change in V/C		Significant Impact	
			AM Peak		*PM Peak*		*AM Peak*		*PM Peak*					
			Delay[1]	*LOS*[2]	*Delay*[1]	*LOS*[2]	*Delay*[1]	*LOS*[2]	*Delay*[1]	*LOS*[2]	*AM*	*PM*	*AM*	*PM*
1	Van Nuys Boulevard/Saticoy Street	CMA	0.734	C	0.787	C	0.749	C	0.800	C	0.015	0.013	No	No
2	Van Nuys Boulevard/Valerio Street	CMA	0.583	A	0.635	B	0.583	A	0.636	B	0.000	0.001	No	No
3	Tyrone Avenue/Valerio Street	CMA	0.268	A	0.283	A	0.282	A	0.290	A	0.014	0.007	No	No
4	Hazeltine Avenue/Valerio Street	CMA	0.611	B	0.566	A	0.668	B	0.601	B	0.057	0.035	No	No
5	Woodman Avenue/Valerio Street	CMA	0.833	D	0.653	B	0.849	D	0.683	B	0.016	0.030	No	No
6	Van Nuys Boulevard/Sherman Way	CMA	0.699	B	0.797	C	0.705	C	0.803	D	0.006	0.006	No	No
7	Tyrone Avenue/Sherman Way	CMA	0.481	A	0.458	A	0.485	A	0.458	A	0.004	0.000	No	No
8	Hazeltine Avenue/Sherman Way	CMA	0.789	C	0.732	C	0.791	C	0.757	C	0.002	0.025	No	No
9	Woodman Avenue/Sherman Way	CMA	0.920	E	0.877	D	0.929	E	0.881	D	0.009	0.004	No	No

Source: Dudek 2019
Note: CMA = LADOT CMA Methodology; BOLD value indicates unsatisfactory LOS
1 Volume-to-Capacity (V/C) ratio
2 Level of Service (LOS)



Source: Google Maps, 06/2018

FIGURE 11

Future 2023 plus Project Traffic Volumes

LADWP - Mid Valley Water Facility

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7 CONGESTION MANAGEMENT PLAN ANALYSIS

This section provides analysis that is required for conformance with the County of Los Angeles Congestion Management Program. The County's CMP requires evaluation of CMP arterial monitoring intersections where the project adds 50 or more new peak hour trips and/or mainline freeway monitoring location where a project adds 150 trips or more, in either direction during either the weekday AM or PM peak hours. I-405 and SR-170 is the closest CMP facility in the study area.

The nearest CMP arterial monitoring intersection to the project is:

- #83 Victory Boulevard and Woodman Avenue

The nearest CMP mainline freeway monitoring locations to the project are:

- #1057 SR-170, south of Sherman Way
- #1072 I-405, north of Roscoe Boulevard

Based on the project's trip generation, distribution, assignment and freeway screening analysis, it would not add 50 or more new peak hour trips to the CMP arterial monitoring station, or 150 new peak hour trips to a CMP mainline freeway monitoring location. Project traffic would not likely increase the v/c ratio of any CMP facility by 0.02 v/c or higher. Therefore, CMP analysis would not be required.

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8 CMP TRANSIT ANALYSIS

As mentioned in Section 2.2, and shown in Figure 4, the project site has access to transit facilities such as Metro and LADOT DASH bus lines. As shown in Table 5, a transit reduction of 15% was applied to project trip generation per LADOT recommendation.

Vehicle and person trips estimates for CMP transit trips analysis for the project are summarized in Table 10. Vehicle trips were converted to person trips by applying a factor of 1.4, per CMP guidelines for Los Angeles.

Table 10
Transit Trips

CMP Transit Trips							
		AM Peak Hour			*PM Peak Hour*		
Land Use	*Daily*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Transit Reduction (15%)							
Vehicle Trips (removed by Transit) [1]	256	35	8	44	7	40	47
Person Trips							
Person Trips (added to Transit) [2]	359	50	12	61	10	56	66

Notes:
1 Trip generation from Table 6 – Project Trip Generation.
2 Per CMP guidelines, a conversion factor of 1.4 was utilized to convert vehicle trips to person trips.

As shown in the Table 10, the project would generate 359 net additional transit trips, 61 AM peak hour trips (50 inbound and 12 outbound), and 66 trips during the PM peak hour (10 inbound and 66 outbound).

The CMP transit performance is based on frequency and routing of public transit. Since the study area is served by both bus and rail transit that operate at adequate frequency and the highest peak hour directional transit trips is only 56 person trips, the project is not anticipated to create a significant impact on the transit system in the study area.

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9 FINDINGS

Based on the traffic analysis of the proposed Mid Valley Water Facility, the following findings on study area intersection levels of service, project trip generation, and project impacts are made:

- After applying a transit reduction due to the project's proximity to transit service and an off-peak employee reduction to account for workers commuting outside the standard AM and PM peak hours, the project would generate approximately 1,453 net daily trips, 210 AM peak hour net trips (170 inbound and 40 outbound), and 229 net trips during the PM peak hour (34 inbound and 194 outbound).
- In Existing plus Project conditions, all of the study area intersections are forecast to operate at LOS D, and the project's increases to intersection V/C would be less than the LADOT significance criteria. Therefore, the proposed project would not create a significant impact in the Existing plus Project condition.
- In Future 2023 plus Project conditions with the exception of Woodman Avenue/Sherman Way, all of the study area intersections are forecast to operate at LOS D or better, The Woodman Avenue/Sherman Way intersection continues to operate at LOS E during the AM peak hour. Since the V/C increase during the AM peak hour would be less than 0.01, the project would not have a significant impact at the Woodman Avenue/Sherman Way intersection. Therefore, the proposed project would not have a significant impact at any of the study area intersections under the Future 2023 plus Project conditions.
- Based on the project's trip generation, distribution, assignment and freeway screening analysis, it would not add 50 or more new peak hour trips to the CMP arterial monitoring station, or 150 new peak hour trips to a CMP mainline freeway monitoring location. Project traffic would not likely increase the v/c ratio of any CMP facility by 0.02 v/c or higher. Therefore, CMP analysis would not be required.
- The project would generate 359 net additional transit trips, 61 AM peak hour trips (50 inbound and 12 outbound), and 66 trips during the PM peak hour (10 inbound and 66 outbound). Since the study area is served by both bus and rail transit that operate at adequate frequency and the highest peak hour directional transit trips is only 56 person trips, the project is not anticipated to create a significant impact on the transit system in the study area.

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APPENDIX A

LADOT Transportation Impact Study Memorandum of Understanding (MOU)

LADOT

Transportation Impact Study Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Impact Study for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Impact Study Guidelines:

I. PROJECT INFORMATION

Project Name: LADWP Mid Valley Water Facility

Project Address: 7600 North Tyrone Avenue, Van Nuys, Los Angeles

Project Description: A consolidated campus with modern facilities and consolidated operations for the Mid Valley Water Facility on approximately 17.3-acre parcel comprising of 235,967 square feet of building, 216,000 square feet of parking and 180,168 square feet of yard/expansion space.

LADOT Project Case Number: _____ Project Site Plan attached? *(Required)* ■ Yes ☐ No

II. TRIP GENERATION

Geographic Distribution: N 35.00 % S 45.00 % E 10.00 % W 10.00 %

Illustration of Project trip distribution percentages at Study intersections attached? *(Required)* ■ Yes ☐ No

Trip Generation Adjustments *(Exact amount of credit subject to approval by LADOT)*

	Yes	No
Transit Usage	■	☐
Transportation Demand Management	■	☐
Existing Active Land Use	☐	■
Previous Land Use	☐	■
Internal Trip	☐	■
Pass-By Trip	☐	■

Studied intersections
#3, #6, #7, #8, #9
#12, #13, #14 & #15

Source of Trip Generation Rate(s)? ☐ ITE 9th Edition ■ Other: ITE 10th Edition

Trip generation table including a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)* ■ Yes ☐ No

	IN	OUT	TOTAL
AM Trips	133	31	164
PM Trips	27	151	178

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2023 Ambient or CMP Growth Rate: 0.54 % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)* ■ Yes ☐ No

Subject to Freeway Impact Analysis, in addition to CMP Analysis? *(Freeway analysis screening filter must be included in this MOU; selecting "yes" implies that at least one criteria was satisfied)* ☐ Yes ■ No

Map of Study Intersections attached? *(May be subject to LADOT revision after initial impact analysis)* ■ Yes ☐ No

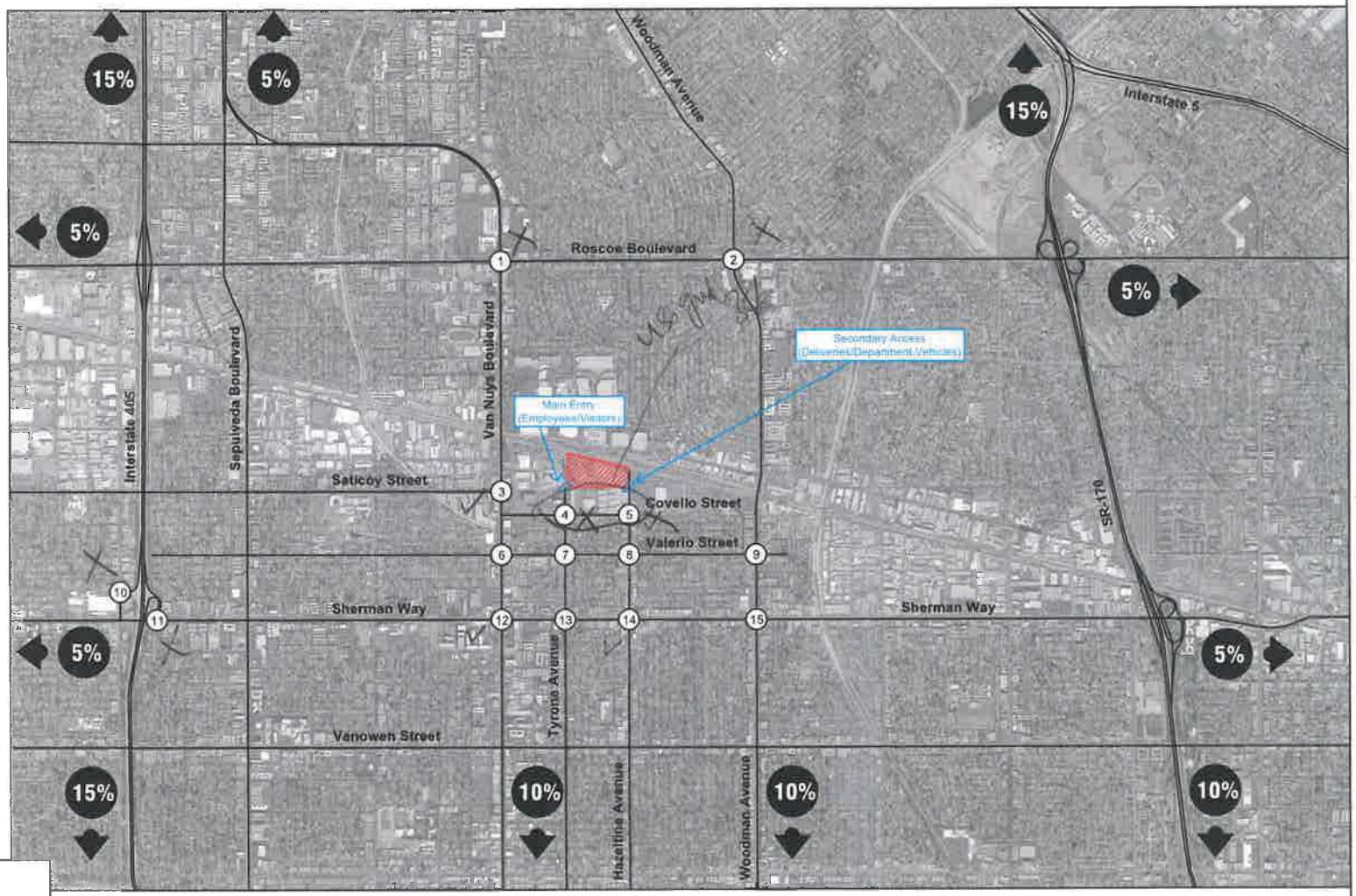
Is this Project located on a street within the High Injury Network? ☐ Yes ■ No

IV. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Dennis Pascua, Dudek	Kathryn Laudeman, Environmental Planning and Assessment, LADWP
Address:	605 Third Street, Encinitas, CA 92024	111 North Hope Street, Room 1044, Los Angeles, CA 90012
Phone Number:	760-479-4256	213-367-6376
E-Mail:	dpascua@dudek.com	Kathryn.Laudeman@ladwp.com

Approved by:	x _____	11-1-2018	x _____	
	Consultant's Representative	Date	LADOT Representative	Date

1. Van Nuys Boulevard/ Roscoe Boulevard
2. Woodman Avenue/ Roscoe Boulevard
3. Van Nuys Boulevard/ Saticoy Street
4. Tyrone Avenue/ Covello Street
5. Hazeltine Avenue/ Covello Street
6. Van Nuys Boulevard/ Valerio Street
7. Tyrone Avenue/ Valerio Street
8. Hazeltine Avenue/ Valerio Street
9. Woodman Avenue/ Valerio Street
10. Haskell Avenue/ I-405 SB ramps
11. I-405 NB - Firmament Ave/ Sherman Way
12. Van Nuys Boulevard/ Sherman Way
13. Tyrone Avenue/ Sherman Way
14. Hazeltine Avenue/ Sherman Way
15. Woodman Avenue/ Sherman Way



Legend

- Project
- X — Study Intersection
- XX% — Percentage Distribution

NOT TO SCALE

Source: Google Maps, 09/2018

FIGURE 1

Study Area Intersections and Project Trip Distribution

LADWP - Mid Valley Water Facility

DUDEK

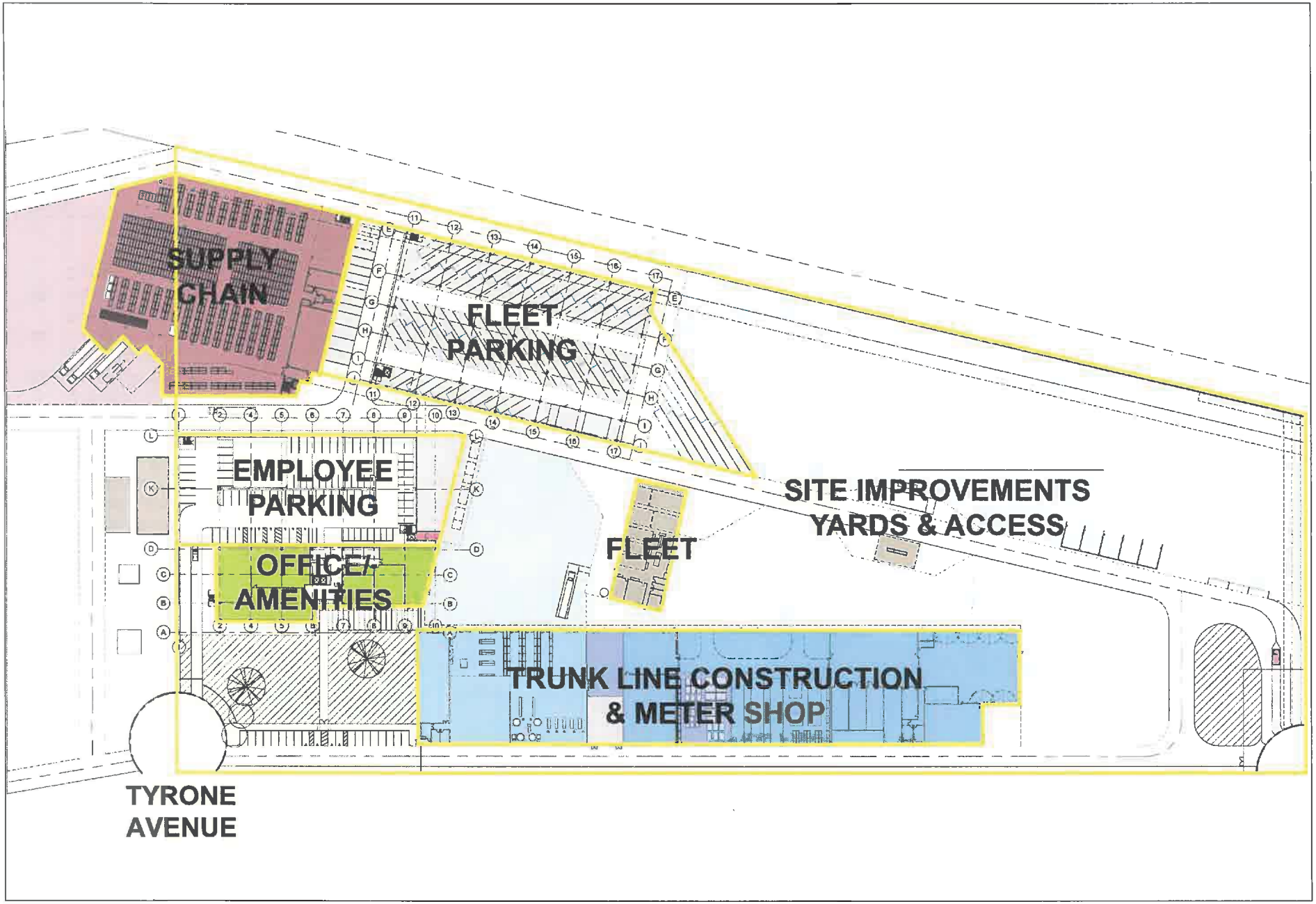


FIGURE 2

Preliminary Site Plan

LADWP - Mid Valley Water Facility

DUDEK

Table 1

Proposed Mid Valley Water Facility Trip Generation Summary

Trip Rates								
			AM Peak Hour			PM Peak Hour		
Land Use	Size/Unit	Daily	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Utility (ITE 170)	per employee	4.11	0.57	0.13	0.70	0.11	0.65	0.76
Trip Generation								
Utility (ITE 170)	416 employee	1,710	236	55	291	47	269	316
Transit Reduction (25% Daily/AM,PM) [1]		*-427*	*-59*	*-14*	*-73*	*-12*	*-67*	*-79*
Peak Employee Trip Reduction (25% AM/PM)) [2]		*0*	*-44*	*-10*	*-55*	*-9*	*-50*	*-59*
NET Trip Generation		**1,282**	**133**	**31**	**164**	**27**	**151**	**178**

max. 15%

Notes:

Trip rates from the Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition* , 2017.

[1] 25% Transit Reduction assumed given the project's proximity to transit service including Van Nuys Amtrak/Metrolin station, Metro and LADOT Dash buslines

[2] 25% Off-Peak employee trip reduction as approximately 25% of all employees are anticipated to begin work before 7:00 am and leave work before 3:00 pm, and therefore commute outside of the AM and PM peak periods.

Transit reduction = 15%

Table 2
Project Trip Assignment

	Daily	AM Peak Hour			PM Peak Hour		
		In	*Out*	*Total*	*In*	*Out*	*Total*
% Project Trips	**1,282**	**133**	**31**	**164**	**27**	**151**	**178**
5%	64	7	2	8	1	8	9
10%	128	13	3	16	3	15	18
15%	192	20	5	25	4	23	27
20%	256	27	6	33	5	30	36

Freeway Impact Screening Analysis - Mid Valley Water Facility Project

PEAK HOUR PROJECT TRIP GENERATION	Utility	
	AM	PM
INBOUND	133	27
OUTBOUND	31	151

Facility	Capacity (vphpl)
Mainline Segment	2000
Off-ramp	850

FREEWAY LOCATION	DIRECTION	DIRECTION OF PROJECT TRIPS	Mid Valley Water Facility DIST. %	TRIPS AM	TRIPS PM	NUMBER OF LANES	TOTAL CAPACITY	PERCENT OF CAPACITY AM	PERCENT OF CAPACITY PM	FREEWAY ANALYSIS REQUIRED? (YES/NO)
MAINLINE SEGMENT										
I-405 Freeway north of Roscoe Boulevard	Southbound Northbound	Inbound Outbound	15% 15%	20 4	4 23	4 4	8,000 8,000	0.25% 0.05%	0.05% 0.29%	No No
I-405 Freeway south of Sherman Way	Northbound Southbound	Inbound Outbound	15% 15%	20 4	4 23	4 4	8,000 8,000	0.25% 0.05%	0.05% 0.29%	No No
SR-170 Freeway north of Roscoe Boulevard	Southbound Northbound	Inbound Outbound	15% 15%	20 4	4 23	3 3	6,000 6,000	0.33% 0.07%	0.07% 0.38%	No No
SR-170 Freeway south of Sherman Way	Northbound Southbound	Inbound Outbound	10% 10%	13 3	3 15	4 4	8,000 8,000	0.16% 0.04%	0.04% 0.19%	No No
OFF-RAMP										
I-405 Southbound Ramp/ Roscoe Boulevard	Southbound	Inbound	15%	20	4	3	2,550	0.78%	0.16%	No
I-405 Southbound Ramp/ Haskell Avenue	Southbound	Inbound	15%	20	4	2	1,700	1.18%	0.24%	**Yes**
I-405 Northbound Ramp/ Roscoe Boulevard	Northbound	Inbound	15%	20	4	4	3,400	0.59%	0.12%	No
I-405 Northbound Ramp/ Sherman Way	Northbound	Inbound	15%	20	4	2	1,700	1.18%	0.24%	**Yes**
SR-170 Southbound Ramp/ Sherman Way	Southbound	Inbound	10%	13	3	3	2,550	0.51%	0.12%	No
SR-170 Southbound Ramp/ Roscoe Boulevard	Southbound	Inbound	15%	20	4	3	2,550	0.78%	0.16%	No

Freeway impact analysis is required if the project would result in an increase of ≥2% of capacity for facilities operating at LOS D, or in an increase of ≥1% of capacity for facilities operating at LOS E/F.

For a more conservative screening analysis, all facilities are assumed to be operating at LOS E or F.

Table 4

Cumulative Projects Near Study Area*

Address	Filing Date	Case Number	CNC	CD#	Project Description	Request Type	Applicant Contact
14700 W SHERMAN WAY 91405	9/25/2015	CPC-2015-3534-GPA-ZC-BL-F-SPR	Van Nuys	6	NEW 58-UNIT SMALL-LOT SUBDIVISION, 1 COMMON AREA OPEN SPACE LOT, AND 5 PRIVATE COMMON ACCESS LOTS IN THE PROPOSED RD2 ZONE; ONE EXISTING SFD LOT IN THE R1 ZONE		ANGIE YEE
8025 N SEPULVEDA BLVD 91402	11/20/2017	DIR-2017-4855-SPR	North Hills East	6	PROPOSED NEW 4 STORIES RESIDENTIAL BUILDING 67 UNITS WITH FIRST FLOOR AND SUBTERRANEAN PARKING GARAGE.	SPR-SITE PLAN REVIEW	VAROOSH ABEDI (818)758-0018
7040 N SEPULVEDA BLVD 91405	11/21/2017	ZA-2017-4879-CU	Van Nuys	6	A 2,200 SF. RESTAURANT WITH DRIVE-THROUGH SERVICES AND OUTDOOR SEATING; ALLOWING THE HOURS OF OPERATION FROM 4:00A.M.TO 12A.M.(MIDNIGHT), 7 DAYS A WEEK.	CU-CONDITIONAL USE	KATIE ROUNDS; KAIDENCE GROUP (480)269-1235
7855 N HASKELL AVE 91406	11/28/2017	ENV-2017-4931-EAF	Lake Balboa	6	DEMOLITION OF AN EXISTING 114,052 SF. BUILDING AND SURFACE PARKING LOT AND NEW CONSTRUCTION OF AN APPROXIMATELY 148,182 SF. BUILDING FOR STORAGE OF HOUSEHOLD GOODS.	EAF-ENVIRONMENTAL ASSESSMENT	DAVE RAND/ALIX WISNER - ARMBRUSTER GOLDSMITH & DELVAC LLP (310)209-8800
13670 W SHERMAN WAY 91405	1/2/2018	ZA-2018-6-CU-CUB-ZBA-SPR	Greater Valley Glen	2	CONSTRUCTION OF A NEW 14,786 SQUARE FOOT CVS PHARMACY WITH MEZZANINE AND DRIVE-THROUGH PHARMACY WINDOW.	CU-CONDITIONAL USE	MARGARET TAYLOR (818)398-2740
14401 VALERIO ST 91405	1/29/2018	TT-72487-EXT	Van Nuys	2	SUBDIVISION OF A 21,719 SQUARE-FOOT LOT INTO SEVEN SINGLE FAMILY RESIDENCES		0-
14640 W ROSCOE BLVD 91402	2/5/2018	ZA-2018-664-CUB	Panorama City	6	A CONDITIONAL USE PERMIT (CUB) TO AUTHORIZE THE SALE OF BEER AND WINE FOR OFF-SITE CONSUMPTION IN CONJUNCTION WITH A (N) PROPOSED 18,802 SQ. FT. GROCERY STORE.	CUB-CONDITIONAL USE BEVERAGE-ALCOHOL!	DOUG COUPER (714)292-1056
6705 N SEPULVEDA BLVD	2/26/2018	ENV-2018-1046-EAF	Van Nuys	6	SMALL LOT SUBDIVISION OF 30 DETACHED SINGLE FAMILY DWELLING WITH ATTACHED 2 CAR	EAF-ENVIRONMENTAL	ARMIN GHARAI (818)758-0018
7401 N LANKERSHIM BLVD 91605	3/16/2018	ENV-2018-1501-EAF	North Hollywood Northeast	2	DEMOLITION AND CONSTRUCTION OF 108 UNITS (98 MARKET RATE, 1 MANAGERS UNIT, 9 EXTREMELY LOW INCOME), 5 STORIES MIX-USE COMMERCIAL/RESIDENTIAL BUILDING OVER BASEMENT PARKING.TOC TIER 1: TWO INCENTIVES	EAF-ENVIRONMENTAL ASSESSMENT	ARMIN GHARAI (818)634-6327
8011 N SEPULVEDA BLVD 91402	3/21/2018	AA-2018-1599-COC	North Hills East	6	DEMOLITION OF EXISTING COMMERCIAL BUILDING 4,092 SF AND CONSTRUCTION OF A NEW 5 STORY 32 UNIT RESIDENTIAL BUILDING.	COC-CERTIFICATE OF COMPLIANCE	TANYA SANET (818)568-8132
15945 SHERMAN WAY 91406	4/24/2018	TT-72578-EXT	Lake Balboa	6	5-LOT SUBDIVISION		0-
14411 W VANOWEN ST 91405	6/5/2018	ZA-2018-3223-ZV-ZAA	Van Nuys	6	CONVERSION OF A VACANT OFFICE BUILDING INTO A 22-UNIT APARTMENT WITH INCREASED FLOOR AREA AND NO CLEARANCE AROUND SAID	ZV-ZONE VARIANCE	ROBERT B. LAMISHAW, JPL ZONING SERVICES (818)435-2010
14421 W NORDHOFF ST 91402	8/24/2018	APCNV-2008-513-ZC-BL-EXT	Panorama City	7	PROPOSED 17 SMALL LOT SUBDIVISION.	ZC-ZONE CHANGE	0-

* All project data is gathered from the City of Los Angeles Planning Department Website Case Reports.

LADOT

Transportation Impact Study Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Impact Study for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Impact Study Guidelines:

I. PROJECT INFORMATION

Project Name: LADWP Mid Valley Water Facility

Project Address: 7600 North Tyrone Avenue, Van Nuys, Los Angeles

Project Description: A consolidated campus with modern facilities and consolidated operations for the Mid Valley Water Facility on approximately 17.3-acre parcel comprising of 235,967 square feet of building, 216,000 square feet of parking and 180,168 square feet of yard/expansion space.

LADOT Project Case Number: _____ Project Site Plan attached? *(Required)* ■ Yes ☐ No

II. TRIP GENERATION

Geographic Distribution: N 45.00 % S 35.00 % E 10.00 % W 10.00 %

Illustration of Project trip distribution percentages at Study intersections attached? *(Required)* ■ Yes ☐ No

Trip Generation Adjustments *(Exact amount of credit subject to approval by LADOT)*

	Yes	No
Transit Usage	■	☐
Transportation Demand Management	■	☐
Existing Active Land Use	☐	■
Previous Land Use	☐	■
Internal Trip	☐	■
Pass-By Trip	☐	■

Source of Trip Generation Rate(s)? ☐ ITE 9th Edition ■ Other: ITE 10th Edition

Trip generation table including a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)* ■ Yes ☐ No

	IN	OUT	TOTAL
AM Trips	170	40	210
PM Trips	34	194	229

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2023 Ambient or CMP Growth Rate: 0.54 % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)* ■ Yes ☐ No

Subject to Freeway Impact Analysis, in addition to CMP Analysis? *(Freeway analysis screening filter must be included in this MOU; selecting "yes" implies that at least one criteria was satisfied)* ☐ Yes ■ No

Map of Study Intersections attached? *(May be subject to LADOT revision after initial impact analysis)* ■ Yes ☐ No

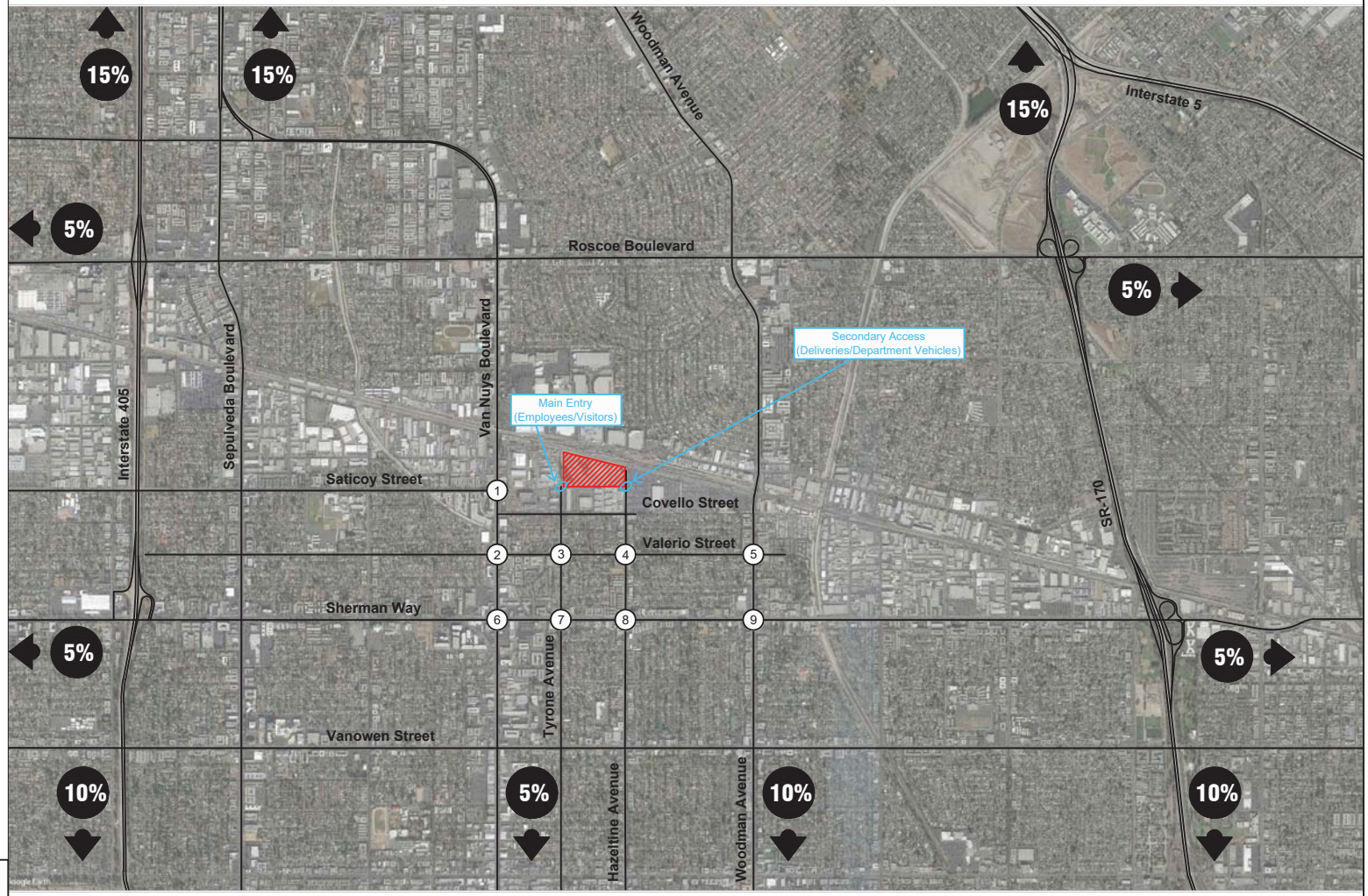
Is this Project located on a street within the High Injury Network? ☐ Yes ■ No

IV. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Dennis Pascua, Dudek	Kathryn Laudeman, Environmental Planning and Assessment, LADWP
Address:	605 Third Street, Encinitas, CA 92024	111 North Hope Street, Room 1044, Los Angeles, CA 90012
Phone Number:	760-479-4256	213-367-6376
E-Mail:	dpascua@dudek.com	Kathryn.Laudeman@ladwp.com

Approved by:	x	12/5/2018	x	
	Consultant's Representative	Date	LADOT Representative	Date

1. Van Nuys Boulevard/ Saticoy Street
2. Van Nuys Boulevard/ Valerio Street
3. Tyrone Avenue/ Valerio Street
4. Hazeltine Avenue/ Valerio Street
5. Woodman Avenue/ Valerio Street
6. Van Nuys Boulevard/ Sherman Way
7. Tyrone Avenue/ Sherman Way
8. Hazeltine Avenue/ Sherman Way
9. Woodman Avenue/ Sherman Way



Legend

- Project
- X — Study Intersection
- XX% — Percentage Distribution

NOT TO SCALE

Source: Google Maps, 06/2018

FIGURE 1

Study Area Intersections and Project Trip Distribution

LADWP - Mid Valley Water Facility

DUDEK

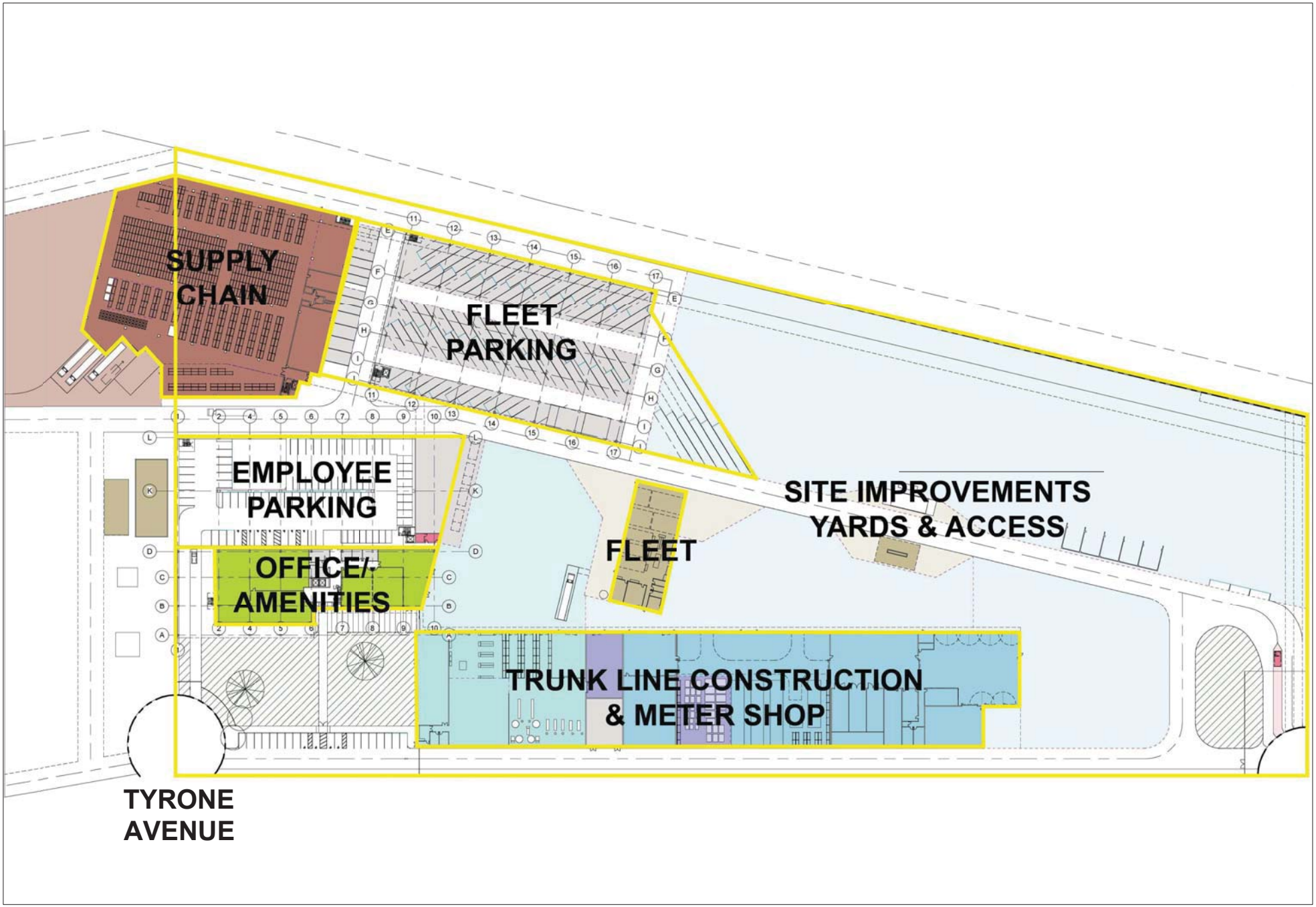


FIGURE 2

Preliminary Site Plan

LADWP - Mid Valley Water Facility

DUDEK

Table 1
Proposed Mid Valley Water Facility Trip Generation Summary

Trip Rates								
			AM Peak Hour			**PM Peak Hour**		
Land Use	**Size/Unit**	**Daily**	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Utility (ITE 170)	per employee	4.11	0.57	0.13	0.70	0.11	0.65	0.76
Trip Generation								
Utility (ITE 170)	416 employee	1,710	236	55	291	47	269	316
Transit Reduction (15% Daily/AM,PM) [1]		*-256*	*-35*	*-8*	*-44*	*-7*	*-40*	*-47*
Peak Employee Trip Reduction (15% AM/PM)) [2]		*0*	*-30*	*-7*	*-37*	*-6*	*-34*	*-40*
NET Trip Generation		**1,453**	**170**	**40**	**210**	**34**	**194**	**229**

Notes:

Trip rates from the Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition* , 2017.

[1] 15% Transit Reduction assumed given the project's proximity to transit service including Van Nuys Amtrak/Metrolin station, Metro and LADOT Dash buslines

[2] 15% Off-Peak employee trip reduction as approximately 15% of all employees are anticipated to begin work before 7:00 am and leave work before 3:00 pm, and therefore commute outside of the AM and PM peak periods.

A utility is a free-standing building that can house office space, a storage area, and electromechanical or industrial equipment

Table 2

Project Trip Assignment

% Project Trips	Daily	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
	1453	170	40	210	34	194	229
5%	73	9	2	11	2	10	11
10%	145	17	4	21	3	19	23
15%	218	26	6	32	5	29	34
20%	291	34	8	42	7	39	46

Freeway Impact Screening Analysis - Mid Valley Water Facility Project

PEAK HOUR PROJECT TRIP GENERATION	Utility	
	AM	PM
INBOUND	170	34
OUTBOUND	40	194

Facility	Capacity (vphpl)
Mainline Segment	2000
Off-ramp	850

FREEWAY LOCATION	DIRECTION	DIRECTION OF PROJECT TRIPS	Mid Valley Water Facility DIST. %	Mid Valley Water Facility TRIPS AM	Mid Valley Water Facility TRIPS PM	NUMBER OF LANES	TOTAL CAPACITY	PERCENT OF CAPACITY AM	PERCENT OF CAPACITY PM	FREEWAY ANALYSIS REQUIRED? (YES/NO)
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I-405 Freeway north of Roscoe Boulevard	Southbound Northbound	Inbound Outbound	15% 15%	26 5	5 29	4 4	8,000 8,000	0.33% 0.06%	0.06% 0.36%	No No
I-405 Freeway south of Sherman Way	Northbound Southbound	Inbound Outbound	15% 15%	26 5	5 29	4 4	8,000 8,000	0.33% 0.06%	0.06% 0.36%	No No
SR-170 Freeway north of Roscoe Boulevard	Southbound Northbound	Inbound Outbound	15% 15%	26 5	5 29	3 3	6,000 6,000	0.43% 0.08%	0.08% 0.48%	No No
SR-170 Freeway south of Sherman Way	Northbound Southbound	Inbound Outbound	10% 10%	17 3	3 19	4 4	8,000 8,000	0.21% 0.04%	0.04% 0.24%	No No
OFF-RAMP										
I-405 Southbound Ramp/ Roscoe Boulevard	Southbound	Inbound	15%	26	5	3	2,550	1.02%	0.20%	No
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Freeway impact analysis is required if the project would result in an increase of ≥2% of capacity for facilities operating at LOS D, or in an increase of ≥1% of capacity for facilities operating at LOS E/F.

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14401 VALERIO ST 91405	1/29/2018	TT-72487-EXT	Van Nuys	2	SUBDIVISION OF A 21,719 SQUARE-FOOT LOT INTO SEVEN SINGLE FAMILY RESIDENCES		0-
14640 W ROSCOE BLVD 91402	2/5/2018	ZA-2018-664-CUB	Panorama City	6	A CONDITIONAL USE PERMIT (CUB) TO AUTHORIZE THE SALE OF BEER AND WINE FOR OFF-SITE CONSUMPTION IN CONJUNCTION WITH A (N) PROPOSED 18,802 SQ. FT. GROCERY STORE.	CUB-CONDITIONAL USE BEVERAGE-ALCOHOLI	DOUG COUPER (714)292-1056
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15945 SHERMAN WAY 91406	4/24/2018	TT-72578-EXT	Lake Balboa	6	5-LOT SUBDIVISION		0-
14411 W VANOWEN ST 91405	6/5/2018	ZA-2018-3223-ZV-ZAA	Van Nuys	6	CONVERSION OF A VACANT OFFICE BUILDING INTO A 22-UNIT APARTMENT WITH INCREASED FLOOR AREA AND NO CLEARANCE AROUND SAID	ZV-ZONE VARIANCE	ROBERT B. LAMISHAW, JPL ZONING SERVICES (818)435-2010
14421 W NORDHOFF ST 91402	8/24/2018	APCNV-2008-513-ZC-BL-EXT	Panorama City	7	PROPOSED 17 SMALL LOT SUBDIVISION.	ZC-ZONE CHANGE	0-

* All project data is gathered from the City of Los Angeles Planning Department Website Case Reports.

APPENDIX B

Traffic Counts

Location: Van Nuys Blvd & Saticoy St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-001
Date: 12/12/2018

Total

NS/EW Streets:	Van Nuys Blvd				Van Nuys Blvd				Saticoy St				Saticoy St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1.5	0.5	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	51	159	12	0	4	317	93	0	71	9	66	0	8	7	14	0	811
7:15 AM	62	138	4	0	3	301	62	0	87	11	87	0	19	8	11	0	793
7:30 AM	92	199	7	0	1	263	61	0	143	5	123	0	30	18	17	0	959
7:45 AM	82	238	7	0	2	307	79	1	108	5	122	0	15	14	16	0	996
8:00 AM	73	222	6	0	0	292	51	0	124	8	128	0	11	8	12	0	935
8:15 AM	54	216	1	0	4	266	84	2	100	5	104	0	7	5	9	0	857
8:30 AM	67	182	2	0	3	261	73	0	65	7	85	0	5	3	6	0	759
8:45 AM	34	183	10	0	6	306	77	0	86	2	90	0	7	18	8	0	827
9:00 AM	45	214	2	0	6	272	67	1	95	7	83	0	7	7	4	0	810
9:15 AM	36	223	5	0	7	261	78	0	80	2	82	0	5	10	10	0	799
9:30 AM	37	243	7	0	4	269	74	0	73	0	102	0	5	5	10	0	829
9:45 AM	33	233	1	0	5	256	63	0	87	1	94	0	6	4	8	0	791
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	666	2450	64	0	45	3371	862	4	1119	62	1166	0	125	107	125	0	10166
APPROACH %'s :	20.94%	77.04%	2.01%	0.00%	1.05%	78.72%	20.13%	0.09%	47.68%	2.64%	49.68%	0.00%	35.01%	29.97%	35.01%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	301	875	21	0	7	1128	275	3	475	23	477	0	63	45	54	0	3747
PEAK HR FACTOR :	0.818	0.919	0.750	0.000	0.438	0.919	0.818	0.375	0.830	0.719	0.932	0.000	0.525	0.625	0.794	0.000	0.941
	0.915				0.908				0.899				0.623				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1.5	0.5	1	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	50	292	21	0	11	313	91	0	132	7	81	0	6	7	13	0	1024
3:15 PM	51	342	28	0	10	249	73	0	164	11	88	0	5	11	16	0	1048
3:30 PM	75	351	9	0	13	252	88	0	126	7	80	0	3	19	20	0	1043
3:45 PM	59	374	4	0	5	285	91	1	150	3	75	0	9	29	15	0	1100
4:00 PM	69	326	6	0	3	269	89	0	130	1	83	0	12	50	36	0	1074
4:15 PM	62	383	8	0	3	275	70	0	145	1	72	0	6	15	11	0	1051
4:30 PM	79	322	3	0	2	269	90	0	168	0	60	0	8	19	9	0	1029
4:45 PM	74	363	1	0	2	296	88	0	124	0	74	0	6	4	0	0	1032
5:00 PM	88	336	5	0	1	274	78	0	153	1	71	0	6	16	6	0	1035
5:15 PM	79	386	12	0	3	262	84	0	156	3	76	0	4	10	7	0	1082
5:30 PM	73	373	7	0	2	271	86	0	146	5	73	0	10	11	5	0	1062
5:45 PM	67	333	2	0	3	271	69	0	152	3	67	0	4	12	2	0	985
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	826	4181	106	0	58	3286	997	1	1746	42	900	0	79	203	140	0	12565
APPROACH %'s :	16.15%	81.77%	2.07%	0.00%	1.34%	75.68%	22.96%	0.02%	64.96%	1.56%	33.48%	0.00%	18.72%	48.10%	33.18%	0.00%	
PEAK HR :	03:30 PM - 04:30 PM																TOTAL
PEAK HR VOL :	265	1434	27	0	24	1081	338	1	551	12	310	0	30	113	82	0	4268
PEAK HR FACTOR :	0.883	0.936	0.750	0.000	0.462	0.948	0.929	0.250	0.918	0.429	0.934	0.000	0.625	0.565	0.569	0.000	0.970
	0.953				0.945				0.957				0.574				

Location: Van Nuys Blvd & Saticoy St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-001
Date: 12/12/2018

Totals PCE

NS/EW Streets:	Van Nuys Blvd				Van Nuys Blvd				Saticoy St				Saticoy St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	51	171	12	0	4	327	96	0	73	9	67	0	10	10	18	0	848
7:15 AM	64	144	4	0	3	308	63	0	87	11	89	0	22	8	16	0	819
7:30 AM	93	204	9	0	1	267	61	0	144	5	125	0	37	19	21	0	986
7:45 AM	82	241	7	0	3	317	79	1	109	6	123	0	19	16	22	0	1025
8:00 AM	76	226	6	0	0	297	53	0	128	9	129	0	15	9	14	0	962
8:15 AM	56	224	1	0	4	272	85	2	101	5	104	0	8	7	10	0	879
8:30 AM	69	192	2	0	3	270	75	0	66	8	90	0	6	3	7	0	791
8:45 AM	35	191	11	0	8	315	78	0	88	2	92	0	8	19	9	0	856
9:00 AM	49	221	3	0	7	276	68	1	99	8	86	0	9	7	4	0	838
9:15 AM	37	231	5	0	7	267	80	0	81	2	85	0	6	10	10	0	821
9:30 AM	40	249	7	0	4	272	76	0	78	0	116	0	6	6	11	0	865
9:45 AM	33	239	2	0	6	264	66	0	90	1	104	0	6	4	9	0	824
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	685	2533	69	0	50	3452	880	4	1144	66	1210	0	152	118	151	0	10514
APPROACH %'s :	20.84%	77.06%	2.10%	0.00%	1.14%	78.70%	20.06%	0.09%	47.27%	2.73%	50.00%	0.00%	36.10%	28.03%	35.87%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	307	895	23	0	8	1153	278	3	482	25	481	0	79	51	67	0	3852
PEAK HR FACTOR :	0.825	0.928	0.639	0.000	0.500	0.909	0.818	0.375	0.837	0.694	0.932	0.000	0.534	0.671	0.761	0.000	0.940
		0.928				0.901				0.901				0.640			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	51	299	23	0	15	320	93	0	134	8	82	0	6	7	13	0	1051
3:15 PM	52	349	35	0	14	253	73	0	167	13	92	0	6	11	17	0	1082
3:30 PM	76	356	11	0	18	255	90	0	126	7	85	0	3	20	20	0	1067
3:45 PM	61	381	5	0	6	290	92	1	152	4	78	0	10	29	15	0	1124
4:00 PM	70	331	6	0	3	275	90	0	131	1	84	0	12	50	37	0	1090
4:15 PM	62	387	9	0	3	278	70	0	147	1	73	0	6	15	11	0	1062
4:30 PM	83	326	3	0	2	272	90	0	173	0	61	0	9	19	9	0	1047
4:45 PM	75	365	1	0	2	302	89	0	130	0	75	0	6	4	0	0	1049
5:00 PM	89	340	5	0	1	277	81	0	156	1	73	0	7	16	6	0	1052
5:15 PM	80	389	13	0	3	267	86	0	157	3	76	0	4	10	7	0	1095
5:30 PM	74	379	7	0	2	272	88	0	148	5	73	0	10	11	5	0	1074
5:45 PM	70	336	2	0	3	273	70	0	152	4	68	0	4	12	2	0	996
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	843	4238	120	0	72	3334	1012	1	1773	47	920	0	83	204	142	0	12789
APPROACH %'s :	16.21%	81.48%	2.31%	0.00%	1.63%	75.45%	22.90%	0.02%	64.71%	1.72%	33.58%	0.00%	19.35%	47.55%	33.10%	0.00%	
PEAK HR :	03:30 PM - 04:30 PM																TOTAL
PEAK HR VOL :	269	1455	31	0	30	1098	342	1	556	13	320	0	31	114	83	0	4343
PEAK HR FACTOR :	0.88	0.940	0.705	0.000	0.417	0.947	0.929	0.250	0.914	0.464	0.941	0.000	0.646	0.570	0.561	0.000	0.966
		0.958				0.945				0.950				0.576			

Van Nuys Blvd & Saticoy St

Peak Hour Turning Movement Count

ID: 18-5782-001
City: Van Nuys

Day: Wednesday
Date: 12/12/2018

PEAK HOURS

AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 03:30 PM - 04:30 PM

COUNT PERIODS

AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 03:00 PM - 06:00 PM

Van Nuys Blvd

SOUTHBOUND

AM	275	1128	7	3	1407	AM
NOON	0	0	0	0	0	NOON
PM	338	1081	24	1	2068	PM

0 3 1 0

EASTBOUND (Saticoy St)

AM	NOON	PM		
621	0	716		
0	0	0	0	
475	0	551	1.5	
23	0	12	0.5	
477	0	310	1	

WESTBOUND (Saticoy St)

	PM	NOON	AM
0	82	0	54
1	113	0	45
1	30	0	63
0	0	0	0
	63	0	51

CONTROL

Signalized

TEV	3747	0	4268
	AM	NOON	PM
PHF	0.94		0.97

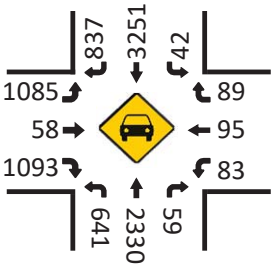
0 1 3 0

PM	1421	0	265	1434	27	PM
NOON	0	0	0	0	0	NOON
AM	1668	0	301	875	21	AM

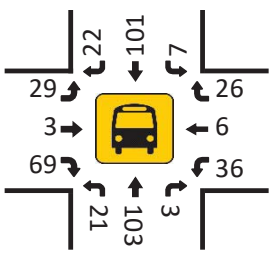
NORTHBOUND

Van Nuys Blvd

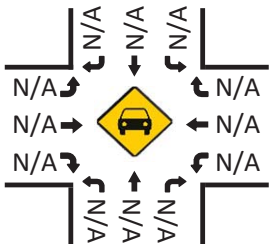
PV (AM)



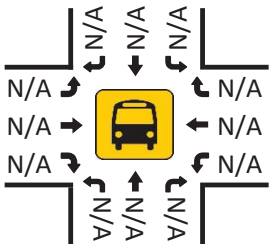
LT (AM)



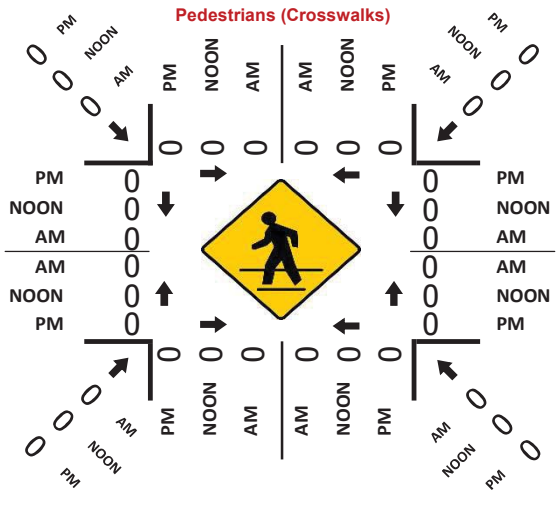
PV (NOON)



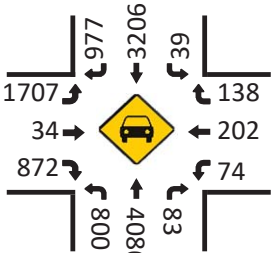
LT (NOON)



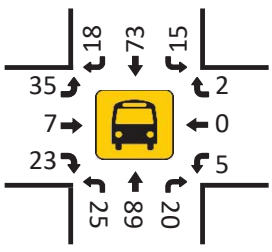
Pedestrians (Crosswalks)



PV (PM)



LT (PM)



City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Van Nuys Blvd

East/West Saticoy St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	294	272	186	98
BIKES	37	46	15	5
BUSES	84	84	9	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	326	7.45	400	7.00	265	7.30	47	7.30
PM PK 15 MIN	471	17.15	400	15.00	250	15.15	97	16.00
AM PK HOUR	1169	7.30	1457	7.00	960	7.30	120	7.15
PM PK HOUR	1779	16.45	1439	16.00	893	15.00	222	15.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	283	719	28	1030
8-9	219	776	18	1013
9-10	141	887	13	1041
15-16	226	1336	42	1604
16-17	278	1381	17	1676
17-18	297	1415	24	1736
TOTAL	1444	6514	142	8100

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	10	1157	290	1457
8-9	12	1108	277	1397
9-10	20	1034	274	1328
15-16	20	1081	335	1436
16-17	10	1093	336	1439
17-18	9	1074	310	1393
TOTAL	81	6547	1822	8450

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2487	17	2	0	1
2410	18	2	1	0
2369	29	3	2	0
3040	53	13	1	0
3115	35	10	3	0
3129	27	0	2	0
16550	179	30	9	1

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	404	29	387	820
8-9	369	20	402	791
9-10	320	9	307	636
15-16	561	22	310	893
16-17	555	2	282	839
17-18	598	10	282	890
TOTAL	2807	92	1970	4869

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	46	41	31	118
8-9	19	29	28	76
9-10	19	25	30	74
15-16	20	65	63	148
16-17	31	88	55	174
17-18	23	49	20	92
TOTAL	158	297	227	682

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
938	26	3	21	4
867	40	0	24	4
710	49	1	31	3
1041	75	1	47	14
1013	61	0	43	9
982	36	0	39	0
5551	287	5	205	34

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Van Nuys Blvd

East/West Saticoy St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	489	453	311	169
BIKES	37	46	15	1
BUSES	130	134	17	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	336	7.45	433	7.00	274	7.30	77	7.30
PM PK 15 MIN	446	17.15	436	15.00	274	15.15	99	16.00
AM PK HOUR	1245	7.30	1556	7.00	990	7.30	218	7.15
PM PK HOUR	1844	16.45	1497	16.00	952	15.00	228	15.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	290	780	32	1102
8-9	236	853	20	1109
9-10	159	963	17	1139
15-16	240	1403	74	1717
16-17	290	1433	19	1742
17-18	313	1469	27	1809
TOTAL	1528	6901	189	8618

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	11	1244	301	1556
8-9	15	1173	293	1481
9-10	24	1095	292	1411
15-16	53	1141	350	1544
16-17	10	1146	341	1497
17-18	9	1109	327	1445
TOTAL	122	6908	1904	8934

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2658	17	2	0	1
2590	18	2	1	0
2550	29	3	2	0
3261	53	13	1	0
3239	35	10	3	0
3254	27	0	2	0
17552	179	30	9	1

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	415	31	404	850
8-9	388	24	415	827
9-10	350	11	391	752
15-16	583	32	337	952
16-17	583	2	293	878
17-18	615	13	290	918
TOTAL	2934	113	2130	5177

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	88	53	77	218
8-9	37	38	40	115
9-10	27	27	34	88
15-16	25	67	65	157
16-17	33	88	57	178
17-18	25	49	20	94
TOTAL	235	322	293	850

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
1068	26	3	21	4
942	40	0	24	4
840	49	1	31	3
1109	75	1	47	14
1056	61	0	43	9
1012	36	0	39	0
6027	287	5	205	34

National Data & Surveying Services

Intersection Turning Movement Count

Location: Van Nuys Blvd & Valerio St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-002
Date: 12/12/2018

Total

NS/EW Streets:	Van Nuys Blvd				Van Nuys Blvd				Valerio St				Valerio St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	2	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	10	138	10	0	11	305	3	0	10	25	16	0	29	37	23	0	617
7:15 AM	9	153	13	1	10	312	6	0	10	35	15	0	33	61	38	0	696
7:30 AM	13	185	19	0	17	281	6	0	14	44	18	0	29	65	29	0	720
7:45 AM	24	239	23	0	11	336	7	0	15	78	20	0	24	76	43	0	896
8:00 AM	18	207	23	0	19	318	9	0	12	51	29	0	24	56	39	0	805
8:15 AM	9	208	9	0	14	295	3	0	13	39	8	0	32	50	33	0	713
8:30 AM	8	162	17	0	20	270	7	0	10	28	6	0	18	33	27	0	606
8:45 AM	4	182	15	0	17	320	5	0	13	36	9	0	18	29	31	0	679
9:00 AM	6	181	20	0	10	281	5	0	11	29	8	0	18	25	26	1	621
9:15 AM	5	196	17	0	17	274	6	0	13	27	5	0	18	23	27	0	628
9:30 AM	12	223	16	0	22	270	7	0	4	29	13	0	18	30	15	0	659
9:45 AM	8	216	26	0	20	273	9	0	10	26	14	0	22	25	14	0	663
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	126	2290	208	1	188	3535	73	0	135	447	161	0	283	510	345	1	8303
APPROACH %'s :	4.80%	87.24%	7.92%	0.04%	4.95%	93.12%	1.92%	0.00%	18.17%	60.16%	21.67%	0.00%	24.85%	44.78%	30.29%	0.09%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	64	839	74	0	61	1230	25	0	54	212	75	0	109	247	144	0	3134
PEAK HR FACTOR :	0.667	0.878	0.804	0.000	0.803	0.915	0.694	0.000	0.900	0.679	0.647	0.000	0.852	0.813	0.837	0.000	0.874
	0.854				0.929				0.754				0.874				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	2	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	15	265	39	0	24	317	4	0	13	36	10	0	21	65	35	0	844
3:15 PM	10	306	33	0	32	255	10	0	10	66	20	0	21	47	38	0	848
3:30 PM	15	293	24	0	29	282	10	0	16	57	14	0	21	54	32	0	847
3:45 PM	14	289	23	0	32	275	13	0	19	54	10	0	15	52	32	0	828
4:00 PM	16	268	24	2	36	258	16	0	16	47	18	0	21	33	30	0	785
4:15 PM	9	316	27	0	32	291	11	0	9	55	13	0	26	60	33	0	882
4:30 PM	15	273	32	0	43	278	13	0	9	57	12	0	20	59	28	0	839
4:45 PM	12	289	23	0	37	302	8	0	7	42	13	0	13	68	36	0	850
5:00 PM	19	280	47	0	39	291	16	0	9	47	8	0	31	71	29	0	887
5:15 PM	19	307	29	0	31	272	14	0	14	70	15	0	21	55	39	0	886
5:30 PM	15	267	36	0	33	299	17	0	15	51	10	0	24	61	34	0	862
5:45 PM	13	297	26	0	29	277	5	0	7	41	15	0	24	51	29	0	814
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	172	3450	363	2	397	3397	137	0	144	623	158	0	258	676	395	0	10172
APPROACH %'s :	4.31%	86.53%	9.10%	0.05%	10.10%	86.42%	3.49%	0.00%	15.57%	67.35%	17.08%	0.00%	19.41%	50.87%	29.72%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	65	1143	135	0	140	1164	55	0	45	210	46	0	89	255	138	0	3485
PEAK HR FACTOR :	0.855	0.931	0.718	0.000	0.897	0.964	0.809	0.000	0.750	0.750	0.767	0.000	0.718	0.898	0.885	0.000	0.982
	0.946				0.973				0.760				0.920				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Van Nuys Blvd & Valerio St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-002
Date: 12/12/2018

Totals PCE

NS/EW Streets:	Van Nuys Blvd				Van Nuys Blvd				Valerio St				Valerio St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	10	148	11	0	11	315	3	0	12	26	16	0	29	37	24	0	642
7:15 AM	9	159	13	1	11	322	6	0	11	36	15	0	33	61	38	0	715
7:30 AM	13	191	21	0	18	289	7	0	15	45	19	0	29	65	29	0	741
7:45 AM	24	242	23	0	11	350	8	0	16	79	20	0	24	76	43	0	916
8:00 AM	18	211	24	0	19	324	9	0	12	51	30	0	24	56	40	0	818
8:15 AM	10	217	9	0	14	301	3	0	14	39	8	0	32	50	33	0	730
8:30 AM	8	171	17	0	20	285	7	0	11	28	6	0	18	33	27	0	631
8:45 AM	4	189	15	0	17	330	5	0	13	36	9	0	18	30	31	0	697
9:00 AM	6	186	20	0	10	287	5	0	11	30	8	0	18	26	29	1	637
9:15 AM	5	202	18	0	18	281	6	0	13	27	5	0	19	24	27	0	645
9:30 AM	13	230	16	0	22	279	7	0	5	30	13	0	18	31	16	0	680
9:45 AM	8	222	26	0	20	285	10	0	11	26	14	0	23	25	14	0	684
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	128	2368	213	1	191	3648	76	0	144	453	163	0	285	514	351	1	8536
APPROACH %'s :	4.72%	87.38%	7.86%	0.04%	4.88%	93.18%	1.94%	0.00%	18.95%	59.61%	21.45%	0.00%	24.76%	44.66%	30.50%	0.09%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	65	861	77	0	62	1264	27	0	57	214	77	0	109	247	145	0	3205
PEAK HR FACTOR :	0.677	0.889	0.802	0.000	0.816	0.903	0.750	0.000	0.891	0.677	0.642	0.000	0.852	0.813	0.843	0.000	0.875
	0.868				0.917				0.757				0.876				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	16	275	40	0	24	323	4	0	13	37	10	0	22	65	36	0	865
3:15 PM	10	316	34	0	35	259	10	0	10	68	20	0	22	47	40	0	871
3:30 PM	15	301	24	0	29	288	10	0	16	57	14	0	22	55	32	0	863
3:45 PM	15	294	23	0	33	283	14	0	19	55	10	0	15	53	33	0	847
4:00 PM	16	273	25	2	37	263	16	0	17	47	18	0	21	34	30	0	799
4:15 PM	9	320	27	0	32	294	11	0	9	55	13	0	26	60	33	0	889
4:30 PM	15	279	32	0	44	281	13	0	9	57	12	0	20	59	29	0	850
4:45 PM	12	292	23	0	38	308	8	0	7	42	13	0	13	69	36	0	861
5:00 PM	19	285	47	0	40	295	16	0	9	47	8	0	31	72	29	0	898
5:15 PM	19	310	29	0	31	279	14	0	14	70	15	0	21	55	40	0	897
5:30 PM	15	272	36	0	33	300	17	0	15	51	10	0	24	62	36	0	871
5:45 PM	14	302	26	0	30	279	5	0	7	41	15	0	24	52	30	0	825
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	175	3519	366	2	406	3452	138	0	145	627	158	0	261	683	404	0	10336
APPROACH %'s :	4.31%	86.63%	9.01%	0.05%	10.16%	86.39%	3.45%	0.00%	15.59%	67.42%	16.99%	0.00%	19.36%	50.67%	29.97%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	65	1159	135	0	142	1182	55	0	45	210	46	0	89	258	141	0	3527
PEAK HR FACTOR :	0.86	0.935	0.718	0.000	0.888	0.959	0.809	0.000	0.750	0.750	0.767	0.000	0.718	0.896	0.881	0.000	0.982
	0.949				0.974				0.760				0.924				

Prepared by National Data & Surveying Services

Van Nuys Blvd & Valerio St

Peak Hour Turning Movement Count

ID: 18-5782-002
City: Van Nuys

Day: Wednesday
Date: 12/12/2018

PEAK HOURS	COUNT PERIODS
07:30 AM - 08:30 AM	07:00 AM - 10:00 AM
NONE	NONE
04:45 PM - 05:45 PM	03:00 PM - 06:00 PM

SOUTHBOUND — Van Nuys Blvd

AM	25	1230	61	0	1037	AM
NOON	0	0	0	0	0	NOON
PM	55	1164	140	0	1326	PM

EASTBOUND — Valerio St

AM	NOON	PM	
336	0	375	
0	0	0	0
54	0	45	0
212	0	210	2
75	0	46	0
AM	NOON	PM	

WESTBOUND — Valerio St

PM	NOON	AM	
138	0	144	0
255	0	247	1
89	0	109	1
0	0	0	0
485	0	347	
PM	NOON	AM	

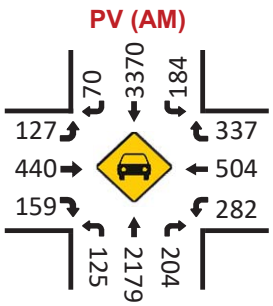
NORTHBOUND — Van Nuys Blvd

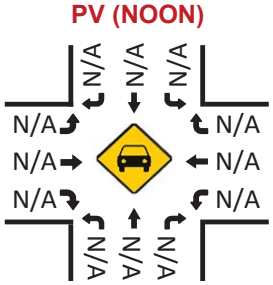
PM	1299	0	65	1143	135	PM
NOON	0	0	0	0	0	NOON
AM	1414	0	64	839	74	AM

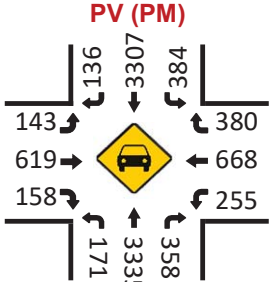
CONTROL

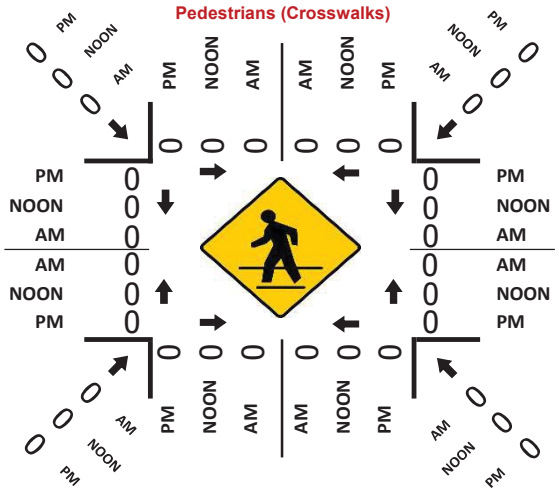
Signalized

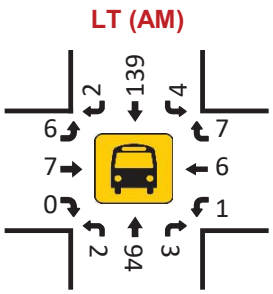
TEV	3134 AM	0 NOON	3485 PM
PHF	0.87		0.98

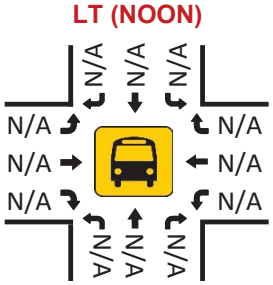


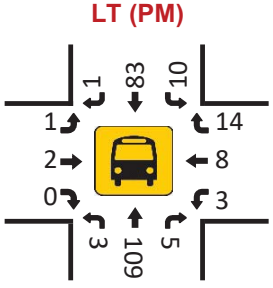












City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Van Nuys Blvd

East/West Valerio St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	240	276	22	42
BIKES	38	29	4	7
BUSES	84	78	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	286	7.45	342	8.00	111	7.45	143	7.45
PM PK 15 MIN	352	17.15	349	17.30	99	17.15	130	17.00
AM PK HOUR	955	7.30	1286	7.15	334	7.30	516	7.15
PM PK HOUR	1338	17.00	1343	16.45	343	15.15	473	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	57	701	64	822
8-9	38	734	63	835
9-10	30	795	78	903
15-16	52	1115	116	1283
16-17	54	1132	104	1290
17-18	65	1135	138	1338
TOTAL	296	5612	563	6471

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	47	1185	20	1252
8-9	70	1181	24	1275
9-10	67	1056	26	1149
15-16	111	1106	36	1253
16-17	144	1113	48	1305
17-18	129	1133	52	1314
TOTAL	568	6774	206	7548

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2074	51	15	21	1
2110	35	0	15	0
2052	30	0	16	2
2536	93	18	24	4
2595	42	5	25	5
2652	78	9	32	1
14019	329	47	133	13

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	46	178	68	292
8-9	46	154	51	251
9-10	36	108	40	184
15-16	58	209	54	321
16-17	40	201	56	297
17-18	45	209	48	302
TOTAL	271	1059	317	1647

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	115	239	132	486
8-9	92	166	129	387
9-10	75	99	76	250
15-16	75	216	132	423
16-17	80	218	125	423
17-18	100	234	123	457
TOTAL	537	1172	717	2426

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
778	27	3	23	1
638	28	1	19	0
434	27	0	19	0
744	51	4	41	5
720	50	4	43	4
759	50	1	58	0
4073	233	13	203	10

City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Van Nuys Blvd

East/West Valerio St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	400	460	44	73
BIKES	38	29	4	2
BUSES	131	121	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	297	7.45	358	8.00	115	7.45	143	7.45
PM PK 15 MIN	359	17.15	353	17.30	99	17.15	132	17.00
AM PK HOUR	1023	7.30	1399	7.15	348	7.30	518	7.15
PM PK HOUR	1399	17.00	1399	16.45	351	15.15	488	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	56	762	68	886
8-9	40	806	65	911
9-10	32	863	80	975
15-16	56	1205	121	1382
16-17	52	1188	107	1347
17-18	67	1194	138	1399
TOTAL	303	6018	579	6900

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	51	1301	24	1376
8-9	70	1259	24	1353
9-10	70	1148	28	1246
15-16	121	1176	38	1335
16-17	151	1164	48	1363
17-18	134	1173	52	1359
TOTAL	597	7221	214	8032

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2262	51	15	21	1
2264	35	0	15	0
2221	30	0	16	2
2717	93	18	24	4
2710	42	5	25	5
2758	78	9	32	1
14932	329	47	133	13

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	54	186	70	310
8-9	50	154	53	257
9-10	40	113	40	193
15-16	58	217	54	329
16-17	42	201	56	299
17-18	45	209	48	302
TOTAL	289	1080	321	1690

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	115	239	134	488
8-9	92	169	131	392
9-10	78	106	86	270
15-16	81	220	141	442
16-17	80	222	128	430
17-18	100	241	135	476
TOTAL	546	1197	755	2498

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
798	27	3	23	1
649	28	1	19	0
463	27	0	19	0
771	51	4	41	5
729	50	4	43	4
778	50	1	58	0
4188	233	13	203	10

Location: Tyrone Ave & Valerio St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-003
Date: 12/12/2018

Total

NS/EW Streets:	Tyrone Ave				Tyrone Ave				Valerio St				Valerio St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	4	4	2	0	1	4	4	0	1	47	10	0	6	65	1	0	149
7:15 AM	4	1	3	0	0	5	4	0	6	73	15	0	4	103	2	0	220
7:30 AM	8	12	4	0	1	6	2	0	6	79	26	0	15	80	3	0	242
7:45 AM	4	9	7	0	1	7	6	0	12	82	24	0	13	108	1	0	274
8:00 AM	8	9	2	0	1	6	4	0	4	69	10	0	7	93	0	0	213
8:15 AM	3	2	3	0	1	5	3	0	5	51	11	0	2	105	1	0	192
8:30 AM	4	3	2	0	1	1	1	0	3	51	6	0	3	69	4	0	148
8:45 AM	1	6	2	0	2	4	7	0	5	68	9	0	2	67	1	0	174
9:00 AM	1	6	5	0	1	7	4	0	2	47	5	0	4	62	1	0	145
9:15 AM	7	6	1	0	0	1	3	0	3	47	8	0	5	57	2	0	140
9:30 AM	1	4	6	0	5	3	3	0	2	59	2	0	0	47	1	0	133
9:45 AM	3	8	2	0	3	5	6	0	4	59	7	0	3	39	5	0	144
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	48	70	39	0	17	54	47	0	53	732	133	0	64	895	22	0	2174
APPROACH %'s :	30.57%	44.59%	24.84%	0.00%	14.41%	45.76%	39.83%	0.00%	5.77%	79.74%	14.49%	0.00%	6.52%	91.23%	2.24%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	24	31	16	0	3	24	16	0	28	303	75	0	39	384	6	0	949
PEAK HR FACTOR :	0.750	0.646	0.571	0.000	0.750	0.857	0.667	0.000	0.583	0.924	0.721	0.000	0.650	0.889	0.500	0.000	0.866
	0.740				0.768				0.860				0.879				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	4	6	2	0	1	5	2	0	7	74	3	0	3	92	3	0	202
3:15 PM	5	8	4	0	3	7	5	0	9	79	7	0	1	76	3	0	207
3:30 PM	6	9	4	0	2	4	6	0	3	77	14	0	3	83	3	0	214
3:45 PM	6	14	4	0	3	2	7	0	2	85	9	0	3	84	6	0	225
4:00 PM	0	2	6	0	2	2	3	0	5	82	4	0	1	86	3	0	196
4:15 PM	6	8	3	0	3	4	5	0	8	76	13	0	2	79	3	0	210
4:30 PM	5	13	7	0	2	4	5	0	4	112	9	0	3	102	4	0	270
4:45 PM	8	9	3	0	0	0	1	0	7	67	10	0	8	100	1	0	214
5:00 PM	7	6	8	0	1	7	10	0	5	94	10	0	4	93	4	0	249
5:15 PM	5	9	6	0	4	8	1	0	5	93	7	0	7	111	4	0	260
5:30 PM	2	6	5	0	0	6	4	0	4	91	13	0	2	96	2	0	231
5:45 PM	0	7	4	0	2	8	8	0	7	57	6	0	5	78	4	0	186
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	54	97	56	0	23	57	57	0	66	987	105	0	42	1080	40	0	2664
APPROACH %'s :	26.09%	46.86%	27.05%	0.00%	16.79%	41.61%	41.61%	0.00%	5.70%	85.23%	9.07%	0.00%	3.61%	92.94%	3.44%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	25	37	24	0	7	19	17	0	21	366	36	0	22	406	13	0	993
PEAK HR FACTOR :	0.781	0.712	0.750	0.000	0.438	0.594	0.425	0.000	0.750	0.817	0.900	0.000	0.688	0.914	0.813	0.000	0.919
	0.860				0.597				0.846				0.904				

Location: Tyrone Ave & Valerio St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-003
Date: 12/12/2018

Totals PCE

NS/EW Streets:	Tyrone Ave				Tyrone Ave				Valerio St				Valerio St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	4	4	2	0	1	4	4	0	1	48	11	0	6	65	1	0	151
7:15 AM	4	1	3	0	0	5	4	0	6	74	16	0	4	104	2	0	223
7:30 AM	8	13	4	0	1	6	2	0	6	82	26	0	15	81	4	0	248
7:45 AM	4	9	7	0	1	7	6	0	12	83	24	0	14	108	1	0	276
8:00 AM	8	9	2	0	1	6	4	0	4	69	10	0	7	94	0	0	214
8:15 AM	3	2	3	0	1	5	3	0	5	51	11	0	2	106	1	0	193
8:30 AM	4	3	2	0	1	1	1	0	3	51	6	0	3	70	4	0	149
8:45 AM	1	6	2	0	2	4	7	0	5	70	9	0	2	69	1	0	178
9:00 AM	1	6	5	0	1	8	4	0	2	47	5	0	4	65	1	0	149
9:15 AM	7	6	1	0	0	1	4	0	4	48	9	0	5	57	2	0	144
9:30 AM	1	4	6	0	6	3	4	0	2	61	2	0	0	48	1	0	138
9:45 AM	3	9	2	0	4	6	6	0	4	60	7	0	3	39	6	0	149
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	48	72	39	0	19	56	49	0	54	744	136	0	65	906	24	0	2212
APPROACH %'s :	30.19%	45.28%	24.53%	0.00%	15.32%	45.16%	39.52%	0.00%	5.78%	79.66%	14.56%	0.00%	6.53%	91.06%	2.41%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	24	32	16	0	3	24	16	0	28	308	76	0	40	387	7	0	961
PEAK HR FACTOR :	0.750	0.615	0.571	0.000	0.750	0.857	0.667	0.000	0.583	0.928	0.731	0.000	0.667	0.896	0.438	0.000	0.870
	0.720				0.768				0.866				0.882				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	4	6	3	0	1	5	2	0	7	76	3	0	3	93	3	0	206
3:15 PM	5	8	5	0	3	8	5	0	11	83	7	0	1	79	3	0	218
3:30 PM	6	9	4	0	2	4	6	0	3	77	16	0	3	84	3	0	217
3:45 PM	6	14	4	0	3	2	7	0	2	85	9	0	3	85	6	0	226
4:00 PM	0	2	6	0	2	2	3	0	5	83	4	0	1	87	4	0	199
4:15 PM	6	8	3	0	3	4	5	0	8	77	13	0	2	79	3	0	211
4:30 PM	5	14	7	0	2	4	5	0	4	113	10	0	3	103	4	0	274
4:45 PM	8	9	3	0	0	0	1	0	7	67	10	0	8	100	1	0	214
5:00 PM	7	6	8	0	1	7	10	0	5	95	10	0	4	94	4	0	251
5:15 PM	5	9	6	0	4	8	1	0	5	94	7	0	7	112	4	0	262
5:30 PM	2	6	5	0	0	6	4	0	4	91	13	0	2	99	2	0	234
5:45 PM	0	7	4	0	2	8	8	0	7	57	6	0	5	80	4	0	188
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	54	98	58	0	23	58	57	0	68	998	108	0	42	1095	41	0	2700
APPROACH %'s :	25.71%	46.67%	27.62%	0.00%	16.67%	42.03%	41.30%	0.00%	5.79%	85.01%	9.20%	0.00%	3.57%	92.95%	3.48%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	25	38	24	0	7	19	17	0	21	369	37	0	22	409	13	0	1001
PEAK HR FACTOR :	0.78	0.679	0.750	0.000	0.438	0.594	0.425	0.000	0.750	0.816	0.925	0.000	0.688	0.913	0.813	0.000	0.913
	0.837				0.597				0.841				0.902				

Tyrone Ave & Valerio St

Peak Hour Turning Movement Count

ID: 18-5782-003
City: Van Nuys

Day: Wednesday
Date: 12/12/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 10:00 AM
NONE	NONE
04:30 PM - 05:30 PM	03:00 PM - 06:00 PM

SOUTHBOUND — Tyrone Ave

AM	16	24	3	0	65	AM
NOON	0	0	0	0	0	NOON
PM	17	19	7	0	71	PM

EASTBOUND — Valerio St

AM	NOON	PM	
424	0	448	
0	0	0	0
28	0	21	0
303	0	366	1
75	0	36	0
AM	NOON	PM	

WESTBOUND — Valerio St

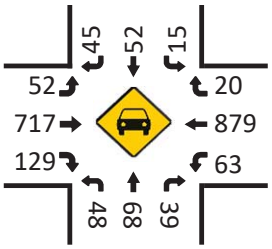
PM	NOON	AM	
13	0	6	0
406	0	384	1
22	0	39	0
0	0	0	0
397	0	322	
PM	NOON	AM	

NORTHBOUND — Tyrone Ave

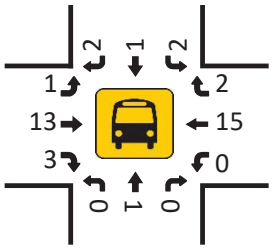
PM	77	0	25	37	24	PM
NOON	0	0	0	0	0	NOON
AM	138	0	24	31	16	AM

CONTROL			
Signalized			
TEV	949	0	993
	AM	NOON	PM
PHF	0.87		0.92

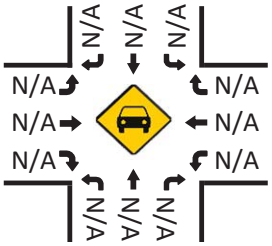
PV (AM)



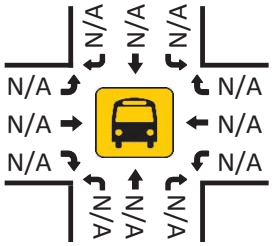
LT (AM)



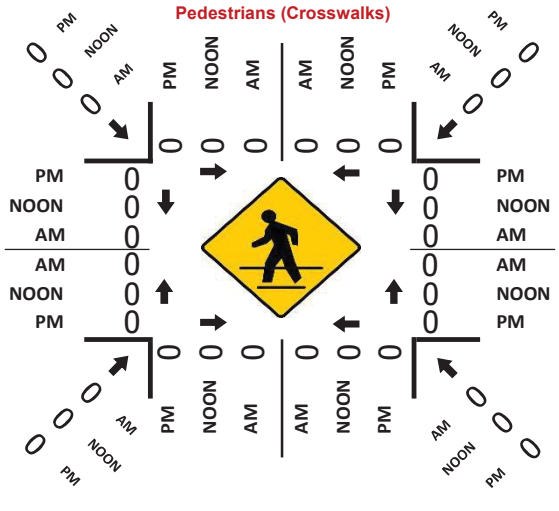
PV (NOON)



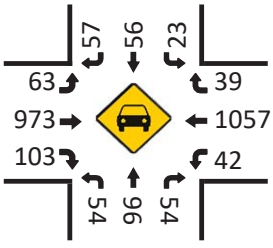
LT (NOON)



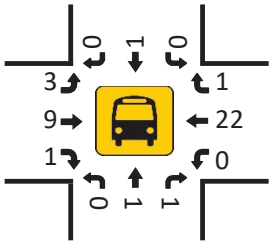
Pedestrians (Crosswalks)



PV (PM)



LT (PM)



City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Tyrone Ave

East/West Valerio St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	5	7	39	43
BIKES	2	1	7	7
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	23	7.30	14	7.45	117	7.45	121	7.45
PM PK 15 MIN	24	15.45	18	17.00	123	16.30	120	17.15
AM PK HOUR	70	7.15	43	7.15	399	7.15	424	7.15
PM PK HOUR	85	16.30	59	17.00	418	16.30	435	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	20	25	16	61
8-9	16	20	9	45
9-10	12	23	14	49
15-16	21	37	12	70
16-17	19	31	19	69
17-18	14	28	23	65
TOTAL	102	164	93	359

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	3	22	16	41
8-9	5	16	15	36
9-10	7	14	14	35
15-16	9	17	20	46
16-17	7	10	14	31
17-18	7	29	23	59
TOTAL	38	108	102	248

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
102	7	6	0	1
81	2	0	0	1
84	10	2	0	0
116	20	3	2	0
100	8	2	2	1
124	12	1	1	0
607	59	14	5	3

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	25	275	72	372
8-9	17	236	36	289
9-10	10	207	21	238
15-16	18	308	33	359
16-17	24	333	35	392
17-18	21	332	36	389
TOTAL	115	1691	233	2039

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	37	354	6	397
8-9	14	326	6	346
9-10	12	199	8	219
15-16	10	327	15	352
16-17	14	364	10	388
17-18	18	366	14	398
TOTAL	105	1936	59	2100

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
769	3	2	2	0
635	1	1	2	0
457	1	0	1	0
711	5	1	5	1
780	16	3	4	0
787	14	1	3	0
4139	40	8	17	1

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Tyrone Ave

East/West Valerio St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	10	14	71	73
BIKES	2	1	7	3
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	25	7.30	14	7.45	119	7.45	123	7.45
PM PK 15 MIN	26	15.45	18	17.00	127	16.30	123	17.15
AM PK HOUR	72	7.15	43	7.15	412	7.15	434	7.15
PM PK HOUR	87	16.30	59	17.00	427	16.30	444	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	20	27	16	63
8-9	16	20	9	45
9-10	12	25	14	51
15-16	21	37	16	74
16-17	19	33	19	71
17-18	14	28	23	65
TOTAL	102	170	97	369

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	3	22	16	41
8-9	5	16	15	36
9-10	11	18	18	47
15-16	9	19	20	48
16-17	7	10	14	31
17-18	7	29	23	59
TOTAL	42	114	106	262

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
104	7	6	0	1
81	2	0	0	1
98	10	2	0	0
122	20	3	2	0
102	8	2	2	1
124	12	1	1	0
631	59	14	5	3

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	25	287	77	389
8-9	17	241	36	294
9-10	12	216	23	251
15-16	23	321	35	379
16-17	24	340	37	401
17-18	21	337	36	394
TOTAL	122	1742	244	2108

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	39	358	8	405
8-9	14	339	6	359
9-10	12	209	10	231
15-16	10	341	15	366
16-17	14	369	12	395
17-18	18	385	14	417
TOTAL	107	2001	65	2173

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
794	3	2	2	0
653	1	1	2	0
482	1	0	1	0
745	5	1	5	1
796	16	3	4	0
811	14	1	3	0
4281	40	8	17	1

Location: Hazeltine Ave & Valerio St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-004
Date: 12/12/2018

Total

NS/EW Streets:	Hazeltine Ave				Hazeltine Ave				Valerio St				Valerio St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	48	11	0	15	54	1	0	0	32	21	0	29	72	21	0	316
7:15 AM	14	54	25	0	18	59	0	0	0	50	33	0	20	82	30	0	385
7:30 AM	17	68	18	0	28	70	3	0	1	64	27	0	25	83	47	0	451
7:45 AM	24	67	20	0	20	52	2	0	2	65	24	0	17	97	56	0	446
8:00 AM	28	65	19	0	21	44	0	0	0	48	24	0	20	82	42	0	393
8:15 AM	20	59	16	0	11	41	3	0	0	37	19	0	19	78	14	0	317
8:30 AM	10	48	19	0	15	30	0	0	0	39	14	0	14	57	27	0	273
8:45 AM	19	48	11	0	10	34	0	0	0	41	31	0	22	55	29	0	300
9:00 AM	15	44	12	0	19	41	1	0	0	39	16	0	7	46	17	0	257
9:15 AM	14	43	14	0	13	33	2	0	2	37	14	0	19	41	14	0	246
9:30 AM	15	46	9	0	24	49	0	0	1	43	28	0	13	37	26	0	291
9:45 AM	12	33	10	0	18	60	1	0	3	43	19	0	20	29	25	0	273
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	200	623	184	0	212	567	13	0	9	538	270	0	225	759	348	0	3948
APPROACH %'s :	19.86%	61.87%	18.27%	0.00%	26.77%	71.59%	1.64%	0.00%	1.10%	65.85%	33.05%	0.00%	16.89%	56.98%	26.13%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	83	254	82	0	87	225	5	0	3	227	108	0	82	344	175	0	1675
PEAK HR FACTOR :	0.741	0.934	0.820	0.000	0.777	0.804	0.417	0.000	0.375	0.873	0.818	0.000	0.820	0.887	0.781	0.000	0.928
	0.935				0.785				0.918				0.884				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	27	50	20	0	26	39	1	0	1	48	23	0	10	62	22	0	329
3:15 PM	24	62	30	0	23	45	0	0	1	64	17	0	8	60	21	0	355
3:30 PM	24	61	32	0	18	40	1	0	1	70	15	0	12	71	15	0	360
3:45 PM	17	59	30	0	28	50	2	0	0	77	18	0	19	58	21	0	379
4:00 PM	29	71	30	0	42	64	3	0	2	62	17	0	10	68	29	0	427
4:15 PM	29	66	31	0	30	45	0	0	0	68	22	0	9	58	29	0	387
4:30 PM	23	53	33	0	33	38	2	0	0	81	30	0	6	89	27	0	415
4:45 PM	31	48	35	0	20	47	1	0	1	52	17	0	14	76	22	0	364
5:00 PM	26	69	28	0	40	52	2	0	1	78	30	0	18	73	26	0	443
5:15 PM	26	73	31	0	28	60	2	0	0	73	30	0	17	99	26	0	465
5:30 PM	26	62	21	0	18	49	2	0	2	70	31	0	13	74	13	0	381
5:45 PM	20	65	31	0	27	43	3	0	1	53	19	0	9	63	13	0	347
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	302	739	352	0	333	572	19	0	10	796	269	0	145	851	264	0	4652
APPROACH %'s :	21.68%	53.05%	25.27%	0.00%	36.04%	61.90%	2.06%	0.00%	0.93%	74.05%	25.02%	0.00%	11.51%	67.54%	20.95%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	106	243	127	0	121	197	7	0	2	284	107	0	55	337	101	0	1687
PEAK HR FACTOR :	0.855	0.832	0.907	0.000	0.756	0.821	0.875	0.000	0.500	0.877	0.892	0.000	0.764	0.851	0.935	0.000	0.907
	0.915				0.864				0.885				0.868				

Location: Hazeltine Ave & Valerio St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-004
Date: 12/12/2018

Totals PCE

NS/EW Streets:	Hazeltine Ave				Hazeltine Ave				Valerio St				Valerio St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	48	12	0	16	55	1	0	0	32	22	0	29	72	21	0	320
7:15 AM	15	55	25	0	19	60	0	0	0	51	33	0	20	82	31	0	391
7:30 AM	17	68	18	0	29	71	3	0	1	65	27	0	25	83	47	0	454
7:45 AM	25	67	20	0	20	52	2	0	2	68	24	0	17	97	56	0	450
8:00 AM	29	66	19	0	22	46	0	0	0	48	24	0	20	83	43	0	400
8:15 AM	20	60	16	0	11	42	4	0	0	37	19	0	19	78	14	0	320
8:30 AM	10	49	20	0	15	31	0	0	0	39	14	0	15	58	27	0	278
8:45 AM	20	49	11	0	11	35	0	0	0	42	31	0	23	57	30	0	309
9:00 AM	15	44	13	0	20	41	1	0	0	39	16	0	7	48	18	0	262
9:15 AM	14	44	15	0	14	35	3	0	2	38	14	0	20	42	14	0	255
9:30 AM	16	47	9	0	25	55	0	0	1	45	28	0	14	37	26	0	303
9:45 AM	12	34	10	0	20	66	1	0	3	44	19	0	20	29	25	0	283
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	205	631	188	0	222	589	15	0	9	548	271	0	229	766	352	0	4025
APPROACH %'s :	20.02%	61.62%	18.36%	0.00%	26.88%	71.31%	1.82%	0.00%	1.09%	66.18%	32.73%	0.00%	17.00%	56.87%	26.13%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	86	256	82	0	90	229	5	0	3	232	108	0	82	345	177	0	1695
PEAK HR FACTOR :	0.741	0.941	0.820	0.000	0.776	0.806	0.417	0.000	0.375	0.853	0.818	0.000	0.820	0.889	0.790	0.000	0.933
	0.930				0.786				0.912				0.888				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	27	51	20	0	26	40	1	0	2	50	23	0	10	63	23	0	336
3:15 PM	24	63	30	0	23	45	0	0	1	68	18	0	8	62	22	0	364
3:30 PM	24	62	33	0	19	40	1	0	1	70	15	0	12	72	15	0	364
3:45 PM	18	60	30	0	29	50	2	0	0	77	19	0	19	59	22	0	385
4:00 PM	29	72	31	0	44	65	3	0	2	63	17	0	11	69	30	0	436
4:15 PM	29	67	32	0	31	46	0	0	0	69	22	0	9	58	30	0	393
4:30 PM	23	54	33	0	34	38	3	0	0	82	31	0	6	90	27	0	421
4:45 PM	31	48	35	0	20	47	1	0	1	52	17	0	14	76	23	0	365
5:00 PM	26	70	29	0	40	55	2	0	1	79	31	0	18	74	26	0	451
5:15 PM	26	73	31	0	28	60	2	0	0	74	30	0	17	100	26	0	467
5:30 PM	27	63	21	0	18	49	2	0	2	70	31	0	13	76	13	0	385
5:45 PM	20	65	32	0	28	44	3	0	1	53	19	0	9	64	13	0	351
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	304	748	357	0	340	579	20	0	11	807	273	0	146	863	270	0	4718
APPROACH %'s :	21.58%	53.09%	25.34%	0.00%	36.21%	61.66%	2.13%	0.00%	1.01%	73.97%	25.02%	0.00%	11.42%	67.47%	21.11%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	106	245	128	0	122	200	8	0	2	287	109	0	55	340	102	0	1704
PEAK HR FACTOR :	0.85	0.839	0.914	0.000	0.763	0.833	0.667	0.000	0.500	0.875	0.879	0.000	0.764	0.850	0.944	0.000	0.912
	0.921				0.851				0.881				0.869				

Hazeltine Ave & Valerio St

Peak Hour Turning Movement Count

ID: 18-5782-004
City: Van Nuys

Day: Wednesday
Date: 12/12/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 10:00 AM
NONE	NONE
04:30 PM - 05:30 PM	03:00 PM - 06:00 PM

Hazeltine Ave — SOUTHBOUND

AM	5	225	87	0	432	AM
NOON	0	0	0	0	0	NOON
PM	7	197	121	0	346	PM

Valerio St — EASTBOUND

AM	NOON	PM	
432	0	450	
0	0	0	0
3	0	2	0
227	0	284	1
108	0	107	0
AM	NOON	PM	

Valerio St — WESTBOUND

PM	NOON	AM	
101	0	175	0
337	0	344	1
55	0	82	0
0	0	0	0
532	0	396	
PM	NOON	AM	

CONTROL: Signalized

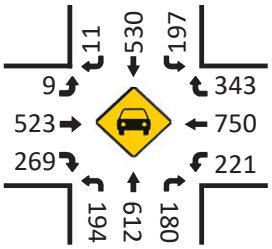
TEV	1675 AM	0 NOON	1687 PM
PHF	0.93		0.91

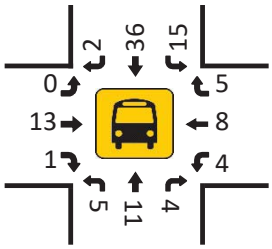
Hazeltine Ave — NORTHBOUND

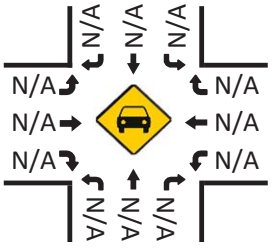
PM	359	0	106	243	127	PM
NOON	0	0	0	0	0	NOON
AM	415	0	83	254	82	AM

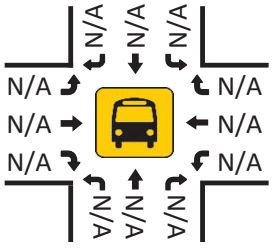
0 0 1 1

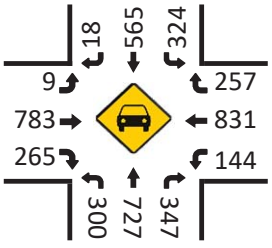
0 1 0 0

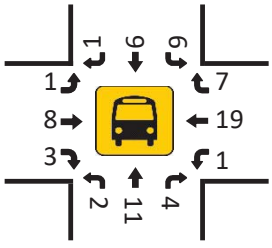


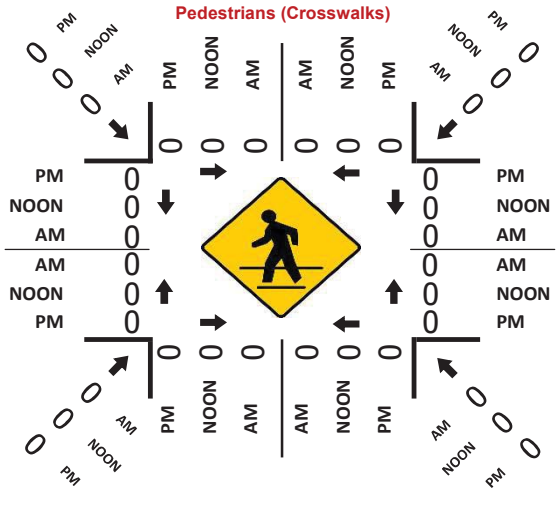












City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Hazeltine Ave

East/West Valerio St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	40	71	34	46
BIKES	6	3	7	8
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	110	7.45	98	7.30	90	7.30	170	7.45
PM PK 15 MIN	130	17.15	105	16.00	109	16.30	140	17.15
AM PK HOUR	417	7.30	314	7.00	333	7.15	598	7.15
PM PK HOUR	473	16.30	327	15.45	388	16.30	486	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	65	236	73	374
8-9	75	216	64	355
9-10	54	160	43	257
15-16	91	227	111	429
16-17	112	233	127	472
17-18	97	267	109	473
TOTAL	494	1339	527	2360

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	76	232	6	314
8-9	55	142	2	199
9-10	66	156	3	225
15-16	93	173	4	270
16-17	120	191	5	316
17-18	111	202	9	322
TOTAL	521	1096	29	1646

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
688	7	3	1	1
554	1	0	0	0
482	2	1	2	1
699	9	1	5	1
788	6	2	0	0
795	9	3	1	0
4006	34	10	9	3

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	3	206	104	313
8-9	0	163	88	251
9-10	6	155	77	238
15-16	2	252	71	325
16-17	3	259	85	347
17-18	4	272	109	385
TOTAL	18	1307	534	1859

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	91	334	153	578
8-9	73	266	110	449
9-10	57	150	80	287
15-16	49	244	76	369
16-17	38	288	103	429
17-18	57	299	78	434
TOTAL	365	1581	600	2546

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
891	0	1	8	7
700	0	0	9	3
525	0	0	12	3
694	8	2	5	2
776	5	0	8	1
819	3	0	4	2
4405	16	3	46	18

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Hazeltine Ave

East/West Valerio St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	73	120	61	80
BIKES	6	3	7	3
BUSES	0	0	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	112	7.45	103	7.30	93	7.30	170	7.45
PM PK 15 MIN	110	17.15	112	16.00	113	16.30	143	17.15
AM PK HOUR	425	7.30	328	7.00	343	7.15	604	7.15
PM PK HOUR	479	16.30	345	15.45	398	16.30	497	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	69	238	75	382
8-9	79	224	66	369
9-10	57	169	47	273
15-16	93	236	113	442
16-17	112	241	131	484
17-18	99	271	113	483
TOTAL	509	1379	545	2433

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	84	238	6	328
8-9	59	154	4	217
9-10	79	197	5	281
15-16	97	175	4	276
16-17	129	196	7	332
17-18	114	208	9	331
TOTAL	562	1168	35	1765

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
710	7	3	1	1
586	1	0	0	0
554	2	1	2	1
718	9	1	5	1
816	6	2	0	0
814	9	3	1	0
4198	34	10	9	3

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	3	216	106	325
8-9	0	166	88	254
9-10	6	166	77	249
15-16	4	265	75	344
16-17	3	266	87	356
17-18	4	276	111	391
TOTAL	20	1355	544	1919

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	91	334	155	580
8-9	77	276	114	467
9-10	61	156	83	300
15-16	49	256	82	387
16-17	40	293	110	443
17-18	57	314	78	449
TOTAL	375	1629	622	2626

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
905	0	1	8	7
721	0	0	9	3
549	0	0	12	3
731	8	2	5	2
799	5	0	8	1
840	3	0	4	2
4545	16	3	46	18

Location: Woodman Ave & Valerio St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-005
Date: 12/12/2018

Total

NS/EW Streets:	Woodman Ave				Woodman Ave				Valerio St				Valerio St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	7	175	1	0	5	424	95	0	49	7	14	0	5	8	12	0	802
7:15 AM	10	202	3	0	12	528	129	0	83	10	19	0	10	9	10	0	1025
7:30 AM	15	275	2	0	12	510	156	0	92	5	20	0	12	6	15	0	1120
7:45 AM	18	282	4	0	1	467	132	0	88	1	24	0	7	8	15	0	1047
8:00 AM	16	264	2	0	3	415	99	0	66	4	20	0	8	7	17	0	921
8:15 AM	11	196	2	0	3	356	99	0	58	3	14	0	5	7	12	0	766
8:30 AM	7	205	3	0	4	393	77	0	52	1	28	0	4	4	7	0	785
8:45 AM	16	172	4	0	5	425	71	0	45	7	26	0	6	4	4	0	785
9:00 AM	14	186	2	0	2	312	54	0	52	3	22	0	2	2	4	0	655
9:15 AM	7	209	1	1	6	344	37	0	50	9	25	0	4	4	3	0	700
9:30 AM	13	211	4	0	1	332	56	0	65	1	14	0	3	7	6	0	713
9:45 AM	9	226	2	0	2	367	52	0	51	3	18	0	3	6	5	0	744
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	143	2603	30	1	56	4873	1057	0	751	54	244	0	69	72	110	0	10063
APPROACH %'s :	5.15%	93.73%	1.08%	0.04%	0.94%	81.41%	17.66%	0.00%	71.59%	5.15%	23.26%	0.00%	27.49%	28.69%	43.82%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	59	1023	11	0	28	1920	516	0	329	20	83	0	37	30	57	0	4113
PEAK HR FACTOR :	0.819	0.907	0.688	0.000	0.583	0.909	0.827	0.000	0.894	0.500	0.865	0.000	0.771	0.833	0.838	0.000	0.918
	0.899				0.909				0.923				0.939				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	12	359	3	0	4	301	61	0	67	3	13	0	3	7	11	0	844
3:15 PM	9	365	6	0	3	326	69	0	90	9	14	0	4	7	11	0	913
3:30 PM	20	364	7	0	3	298	77	0	75	6	25	0	3	7	15	0	900
3:45 PM	24	355	5	0	2	325	67	0	106	5	13	0	5	10	15	0	932
4:00 PM	21	396	2	0	6	307	77	0	102	4	13	0	7	10	17	0	962
4:15 PM	18	361	5	0	7	311	70	0	102	4	25	0	3	11	12	0	929
4:30 PM	6	360	5	0	6	348	92	0	82	7	17	0	7	13	26	0	969
4:45 PM	12	341	9	0	6	333	85	0	90	5	17	0	8	12	27	0	945
5:00 PM	18	337	8	1	7	336	93	0	93	6	13	0	7	12	24	0	955
5:15 PM	18	356	8	0	10	320	104	0	93	4	8	0	4	14	23	0	962
5:30 PM	11	393	6	0	5	303	69	0	94	6	11	0	2	21	18	0	939
5:45 PM	14	337	6	0	6	322	54	0	100	6	16	0	4	9	13	0	887
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	183	4324	70	1	65	3830	918	0	1094	65	185	0	57	133	212	0	11137
APPROACH %'s :	4.00%	94.45%	1.53%	0.02%	1.35%	79.58%	19.07%	0.00%	81.40%	4.84%	13.76%	0.00%	14.18%	33.08%	52.74%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	54	1394	30	1	29	1337	374	0	358	22	55	0	26	51	100	0	3831
PEAK HR FACTOR :	0.750	0.968	0.833	0.250	0.725	0.960	0.899	0.000	0.962	0.786	0.809	0.000	0.813	0.911	0.926	0.000	0.988
	0.968				0.975				0.971				0.941				

Location: Woodman Ave & Valerio St
City: Van Nuys
Control: Signalized

Project ID: 18-5782-005
Date: 12/12/2018

Totals PCE

NS/EW Streets:	Woodman Ave				Woodman Ave				Valerio St				Valerio St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	7	179	1	0	5	431	96	0	50	7	14	0	5	8	12	0	815
7:15 AM	10	208	3	0	12	534	130	0	85	11	19	0	10	9	10	0	1041
7:30 AM	15	283	2	0	12	516	157	0	97	5	20	0	12	6	15	0	1140
7:45 AM	18	288	4	0	1	476	132	0	89	1	24	0	7	9	15	0	1064
8:00 AM	16	269	2	0	3	429	100	0	66	5	20	0	8	7	17	0	942
8:15 AM	11	198	2	0	3	365	99	0	58	3	14	0	5	7	12	0	777
8:30 AM	7	209	3	0	4	407	79	0	53	1	28	0	4	4	7	0	806
8:45 AM	16	173	5	0	5	433	75	0	46	8	27	0	6	4	4	0	802
9:00 AM	14	197	2	0	2	320	56	0	53	3	22	0	2	2	4	0	677
9:15 AM	7	212	1	1	6	348	38	0	53	9	25	0	5	4	3	0	712
9:30 AM	13	217	4	0	1	336	57	0	68	1	15	0	3	7	6	0	728
9:45 AM	9	230	2	0	2	374	52	0	53	3	18	0	3	6	5	0	757
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	143	2663	31	1	56	4969	1071	0	771	57	246	0	70	73	110	0	10261
APPROACH %'s :	5.04%	93.83%	1.09%	0.04%	0.92%	81.51%	17.57%	0.00%	71.79%	5.31%	22.91%	0.00%	27.67%	28.85%	43.48%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	59	1048	11	0	28	1955	519	0	337	22	83	0	37	31	57	0	4187
PEAK HR FACTOR :	0.819	0.910	0.688	0.000	0.583	0.915	0.826	0.000	0.869	0.500	0.865	0.000	0.771	0.861	0.838	0.000	0.918
	0.902				0.913				0.906				0.947				

NS/EW Streets:	Woodman Ave				Woodman Ave				Valerio St				Valerio St				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	12	366	3	0	4	308	63	0	69	3	13	0	3	7	11	0	862
3:15 PM	9	371	6	0	3	330	71	0	94	9	14	0	4	7	11	0	929
3:30 PM	20	375	7	0	3	303	79	0	76	6	25	0	3	7	15	0	919
3:45 PM	24	359	5	0	2	331	68	0	107	5	13	0	5	11	15	0	945
4:00 PM	21	401	2	0	6	309	78	0	104	4	14	0	7	10	17	0	973
4:15 PM	18	367	6	0	7	314	71	0	103	4	25	0	3	11	12	0	941
4:30 PM	6	365	5	0	6	354	93	0	84	7	17	0	7	13	26	0	983
4:45 PM	12	343	10	0	6	334	86	0	91	5	17	0	8	12	27	0	951
5:00 PM	19	338	8	1	7	340	94	0	94	6	13	0	7	12	24	0	963
5:15 PM	18	360	8	0	10	320	105	0	93	5	8	0	4	14	23	0	968
5:30 PM	11	396	6	0	5	304	70	0	95	6	11	0	2	23	18	0	947
5:45 PM	14	341	6	0	6	327	55	0	101	6	16	0	4	10	13	0	899
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	184	4382	72	1	65	3874	933	0	1111	66	186	0	57	137	212	0	11280
APPROACH %'s :	3.97%	94.46%	1.55%	0.02%	1.33%	79.52%	19.15%	0.00%	81.51%	4.84%	13.65%	0.00%	14.04%	33.74%	52.22%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	55	1406	31	1	29	1348	378	0	362	23	55	0	26	51	100	0	3865
PEAK HR FACTOR :	0.72	0.963	0.775	0.250	0.725	0.952	0.900	0.000	0.963	0.821	0.809	0.000	0.813	0.911	0.926	0.000	0.983
	0.967				0.969				0.973				0.941				

Woodman Ave & Valerio St

Peak Hour Turning Movement Count

ID: 18-5782-005
City: Van Nuys

Day: Wednesday
Date: 12/12/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 10:00 AM
NONE	NONE
04:30 PM - 05:30 PM	03:00 PM - 06:00 PM

Woodman Ave — SOUTHBOUND

AM	516	1920	28	0	1409	AM
NOON	0	0	0	0	0	NOON
PM	374	1337	29	0	1852	PM

Valerio St — EASTBOUND

AM	NOON	PM		
605	0	479		
0	0	0	0	
329	0	358	0	
20	0	22	1	
83	0	55	0	
AM	NOON	PM		

CONTROL

Signalized

TEV	4113 AM	0 NOON	3831 PM
PHF	0.92		0.99

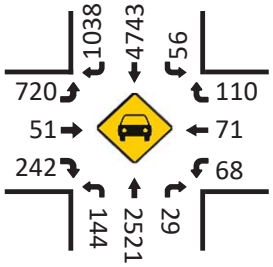
Valerio St — WESTBOUND

	PM	NOON	AM
0	100	0	57
1	51	0	30
0	26	0	37
0	0	0	0
	81	0	59
	PM	NOON	AM

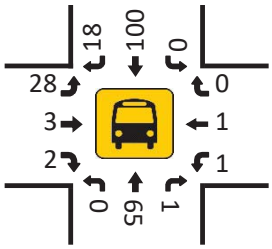
Woodman Ave — NORTHBOUND

PM	1419	1	54	1394	30	PM
NOON	0	0	0	0	0	NOON
AM	2040	0	59	1023	11	AM

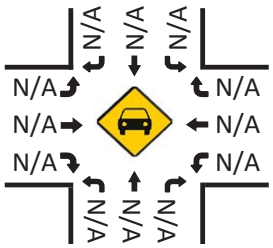
PV (AM)



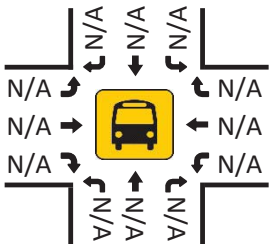
LT (AM)



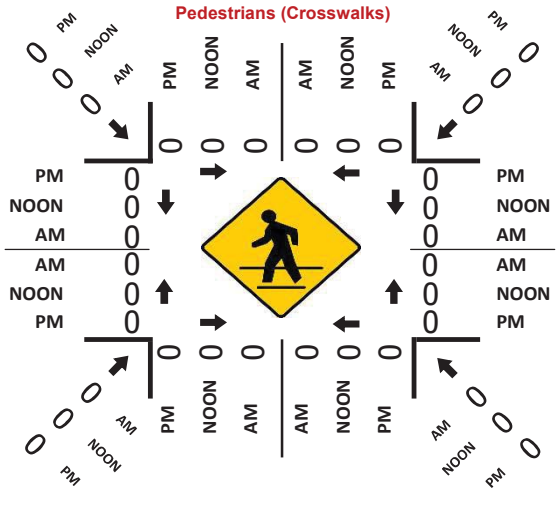
PV (NOON)



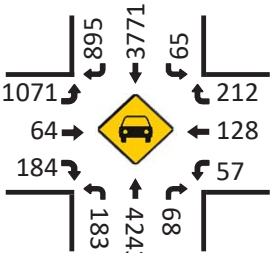
LT (NOON)



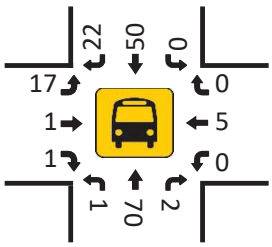
Pedestrians (Crosswalks)



PV (PM)



LT (PM)



City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Woodman Ave

East/West Valerio St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	167	231	61	7
BIKES	26	44	4	5
BUSES	8	9	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	297	7.45	672	7.30	112	7.30	33	7.30
PM PK 15 MIN	409	16.00	438	16.30	129	16.15	47	16.45
AM PK HOUR	1067	7.15	2432	7.00	420	7.15	123	7.15
PM PK HOUR	1546	15.15	1724	16.30	471	15.30	177	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	50	907	10	967
8-9	50	821	10	881
9-10	44	805	9	858
15-16	65	1416	21	1502
16-17	57	1429	19	1505
17-18	61	1410	28	1499
TOTAL	327	6788	97	7212

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	30	1893	509	2432
8-9	15	1537	336	1888
9-10	11	1330	193	1534
15-16	12	1229	262	1503
16-17	25	1281	319	1625
17-18	28	1273	314	1615
TOTAL	121	8543	1933	10597

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
3399	2	1	11	2
2769	6	0	7	0
2392	5	1	12	0
3005	13	1	13	0
3130	16	2	11	1
3114	11	0	12	1
17809	53	5	66	4

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	301	22	77	400
8-9	218	13	87	318
9-10	202	16	78	296
15-16	328	23	65	416
16-17	367	20	71	458
17-18	376	21	48	445
TOTAL	1792	115	426	2333

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	34	30	52	116
8-9	23	22	40	85
9-10	11	19	18	48
15-16	15	30	52	97
16-17	25	46	82	153
17-18	17	52	78	147
TOTAL	125	199	322	646

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
516	5	1	13	2
403	9	0	29	0
344	9	0	18	0
513	17	2	22	2
611	12	0	23	2
592	21	0	18	0
2979	73	3	123	6

City Of Los Angeles
Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Woodman Ave

East/West Valerio St

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	289	400	105	13
BIKES	26	44	4	2
BUSES	16	18	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	312	7.45	685	7.30	122	7.30	33	7.30
PM PK 15 MIN	386	16.00	455	16.30	132	16.15	47	16.45
AM PK HOUR	1122	7.15	2504	7.00	442	7.15	125	7.15
PM PK HOUR	1602	15.15	1759	16.30	486	15.30	177	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	50	964	10	1024
8-9	50	851	12	913
9-10	43	858	9	910
15-16	65	1473	21	1559
16-17	57	1478	23	1558
17-18	62	1437	28	1527
TOTAL	327	7061	103	7491

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	30	1959	515	2504
8-9	15	1638	353	2006
9-10	11	1380	203	1594
15-16	12	1276	281	1569
16-17	25	1313	328	1666
17-18	28	1295	324	1647
TOTAL	121	8861	2004	10986

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
3528	2	1	11	2
2919	6	0	7	0
2504	5	1	12	0
3128	13	1	13	0
3224	16	2	11	1
3174	11	0	12	1
18477	53	5	66	4

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	321	24	77	422
8-9	223	17	89	329
9-10	227	16	80	323
15-16	346	23	65	434
16-17	382	20	73	475
17-18	383	23	48	454
TOTAL	1882	123	432	2437

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	34	32	52	118
8-9	23	22	40	85
9-10	13	19	18	50
15-16	15	32	52	99
16-17	25	46	82	153
17-18	17	59	78	154
TOTAL	127	210	322	659

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
540	5	1	13	2
414	9	0	29	0
373	9	0	18	0
533	17	2	22	2
628	12	0	23	2
608	21	0	18	0
3096	73	3	123	6

Location: Van Nuys Blvd & Sherman Way
City: Van Nuys
Control: Signalized

Project ID: 18-5782-006
Date: 12/12/2018

Total

NS/EW Streets:	Van Nuys Blvd				Van Nuys Blvd				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	2	3	0	0	2	3	0	0	2	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	32	110	14	0	31	291	29	0	26	223	28	0	34	231	40	0	1089
7:15 AM	44	103	31	0	58	281	29	0	24	278	20	0	39	263	24	0	1194
7:30 AM	46	160	28	0	45	295	24	0	38	288	24	0	55	279	34	0	1316
7:45 AM	56	202	25	0	76	252	29	0	44	303	20	0	39	266	39	0	1351
8:00 AM	46	181	34	0	68	299	39	0	60	247	31	0	52	238	41	0	1336
8:15 AM	39	159	25	0	46	259	33	0	35	267	23	0	47	259	38	0	1230
8:30 AM	32	140	31	0	58	253	31	0	37	237	45	0	51	231	41	0	1187
8:45 AM	33	130	23	0	52	263	30	0	33	252	42	0	40	214	53	0	1165
9:00 AM	31	144	27	0	62	235	26	0	40	237	29	0	42	172	43	0	1088
9:15 AM	37	135	22	0	60	195	34	0	49	265	24	0	34	190	52	0	1097
9:30 AM	40	194	37	0	67	224	40	0	37	246	21	0	32	197	48	0	1183
9:45 AM	44	169	26	0	72	213	26	0	50	242	22	0	39	224	54	0	1181
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	480	1827	323	0	695	3060	370	0	473	3085	329	0	504	2764	507	0	14417
APPROACH %'s :	18.25%	69.47%	12.28%	0.00%	16.85%	74.18%	8.97%	0.00%	12.17%	79.37%	8.46%	0.00%	13.35%	73.22%	13.43%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	187	702	112	0	235	1105	125	0	177	1105	98	0	193	1042	152	0	5233
PEAK HR FACTOR :	0.835	0.869	0.824	0.000	0.773	0.924	0.801	0.000	0.738	0.912	0.790	0.000	0.877	0.934	0.927	0.000	0.968
	0.884				0.902				0.940				0.942				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	2	3	0	0	2	3	0	0	2	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	46	204	38	0	75	203	45	0	64	301	23	0	54	248	53	0	1354
3:15 PM	68	245	43	0	81	212	42	0	60	248	24	0	29	213	59	0	1324
3:30 PM	65	232	45	0	73	200	55	0	59	303	20	0	36	274	39	0	1401
3:45 PM	53	240	53	0	69	223	41	0	56	242	14	0	44	251	49	0	1335
4:00 PM	59	230	40	0	93	199	41	0	55	303	15	0	31	243	57	0	1366
4:15 PM	59	266	44	0	87	202	46	0	64	264	15	0	32	249	61	0	1389
4:30 PM	48	245	37	0	68	207	60	0	56	311	24	0	50	256	38	0	1400
4:45 PM	53	260	44	0	102	234	43	0	63	261	21	0	36	261	43	0	1421
5:00 PM	54	251	38	0	97	222	36	0	68	291	27	0	43	283	62	0	1472
5:15 PM	69	279	42	0	103	211	45	0	51	283	11	0	35	243	47	0	1419
5:30 PM	57	263	36	0	93	204	46	0	53	336	18	0	46	284	40	0	1476
5:45 PM	50	271	51	0	85	212	42	0	58	261	15	0	35	257	43	0	1380
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	681	2986	511	0	1026	2529	542	0	707	3404	227	0	471	3062	591	0	16737
APPROACH %'s :	16.30%	71.47%	12.23%	0.00%	25.04%	61.73%	13.23%	0.00%	16.30%	78.47%	5.23%	0.00%	11.42%	74.25%	14.33%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	233	1053	160	0	395	871	170	0	235	1171	77	0	160	1071	192	0	5788
PEAK HR FACTOR :	0.844	0.944	0.909	0.000	0.959	0.931	0.924	0.000	0.864	0.871	0.713	0.000	0.870	0.943	0.774	0.000	0.980
	0.927				0.947				0.911				0.917				

Location: Van Nuys Blvd & Sherman Way
City: Van Nuys
Control: Signalized

Project ID: 18-5782-006
Date: 12/12/2018

Totals PCE

NS/EW Streets:	Van Nuys Blvd				Van Nuys Blvd				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	33	115	15	0	32	300	32	0	27	229	30	0	34	238	46	0	1131
7:15 AM	45	109	32	0	62	286	29	0	25	282	22	0	39	272	25	0	1228
7:30 AM	46	163	28	0	49	300	24	0	39	296	24	0	55	284	36	0	1344
7:45 AM	56	204	25	0	78	266	32	0	44	311	20	0	40	270	40	0	1386
8:00 AM	46	184	34	0	71	305	40	0	60	254	32	0	55	241	43	0	1365
8:15 AM	41	163	26	0	48	261	33	0	36	274	23	0	50	271	42	0	1268
8:30 AM	35	143	32	0	63	263	32	0	37	243	46	0	52	239	47	0	1232
8:45 AM	34	133	26	0	55	267	32	0	33	258	43	0	41	222	58	0	1202
9:00 AM	32	147	28	0	64	237	26	0	42	245	29	0	42	175	43	0	1110
9:15 AM	40	138	22	0	62	202	35	0	50	272	25	0	35	204	54	0	1139
9:30 AM	40	197	38	0	71	229	40	0	38	260	21	0	32	200	51	0	1217
9:45 AM	46	172	27	0	76	222	27	0	52	256	22	0	40	230	57	0	1227
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	494	1868	333	0	731	3138	382	0	483	3180	337	0	515	2846	542	0	14849
APPROACH %'s :	18.33%	69.31%	12.36%	0.00%	17.20%	73.82%	8.99%	0.00%	12.08%	79.50%	8.43%	0.00%	13.19%	72.92%	13.89%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	189	714	113	0	246	1132	129	0	179	1135	99	0	200	1066	161	0	5363
PEAK HR FACTOR :	0.844	0.875	0.831	0.000	0.788	0.928	0.806	0.000	0.746	0.912	0.773	0.000	0.909	0.938	0.936	0.000	0.967
	0.891				0.906				0.942				0.951				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	47	208	38	0	76	207	46	0	65	308	23	0	55	251	56	0	1380
3:15 PM	68	253	43	0	83	215	44	0	61	255	26	0	30	216	64	0	1358
3:30 PM	66	238	46	0	74	204	56	0	59	309	20	0	36	281	41	0	1430
3:45 PM	53	246	54	0	72	226	41	0	56	249	14	0	45	253	50	0	1359
4:00 PM	60	233	40	0	94	202	42	0	56	312	15	0	31	247	61	0	1393
4:15 PM	59	269	44	0	89	204	46	0	64	270	16	0	32	252	66	0	1411
4:30 PM	48	248	37	0	68	210	60	0	57	320	24	0	51	258	41	0	1422
4:45 PM	53	262	45	0	104	239	43	0	63	265	21	0	36	265	45	0	1441
5:00 PM	54	253	39	0	99	224	36	0	68	292	27	0	43	286	64	0	1485
5:15 PM	70	282	42	0	105	213	46	0	51	284	11	0	35	245	49	0	1433
5:30 PM	58	266	36	0	95	209	46	0	53	337	18	0	46	289	41	0	1494
5:45 PM	50	276	51	0	85	215	42	0	58	265	15	0	36	259	44	0	1396
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	686	3034	515	0	1044	2568	548	0	711	3466	230	0	476	3102	622	0	17002
APPROACH %'s :	16.20%	71.64%	12.16%	0.00%	25.10%	61.73%	13.17%	0.00%	16.13%	78.65%	5.22%	0.00%	11.33%	73.86%	14.81%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	235	1063	162	0	403	885	171	0	235	1178	77	0	160	1085	199	0	5853
PEAK HR FACTOR :	0.84	0.942	0.900	0.000	0.960	0.926	0.929	0.000	0.864	0.874	0.713	0.000	0.870	0.939	0.777	0.000	0.979
	0.926				0.945				0.913				0.919				

Van Nuys Blvd & Sherman Way

Peak Hour Turning Movement Count

ID: 18-5782-006
City: Van Nuys

Day: Wednesday
Date: 12/12/2018

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	04:45 PM - 05:45 PM

COUNT PERIODS

AM	07:00 AM - 10:00 AM
NOON	NONE
PM	03:00 PM - 06:00 PM

Van Nuys Blvd — SOUTHBOUND

AM	125	1105	235	0	1031	AM
NOON	0	0	0	0	0	NOON
PM	170	871	395	0	1480	PM

Sherman Way — EASTBOUND

AM	NOON	PM		
1354	0	1474		
0	0	0	0	
177	0	235	2	
1105	0	1171	3	
98	0	77	0	
AM	NOON	PM		

CONTROL

Signalized

TEV	5233 AM	0 NOON	5788 PM
PHF	0.97		0.98

Sherman Way — WESTBOUND

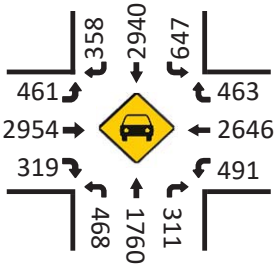
	PM	NOON	AM
0	192	0	152
3	1071	0	1042
2	160	0	193
0	0	0	0
	1726	0	1452
	PM	NOON	AM

Van Nuys Blvd — NORTHBOUND

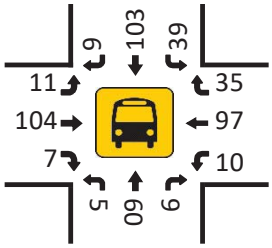
PM	1108	0	233	1053	160	PM
NOON	0	0	0	0	0	NOON
AM	1396	0	187	702	112	AM

0 2 3 0

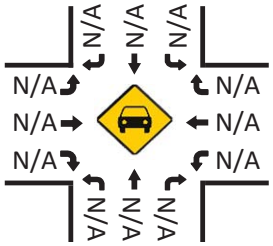
PV (AM)



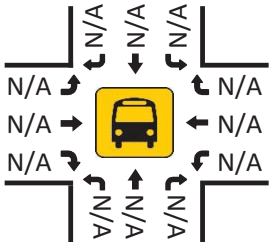
LT (AM)



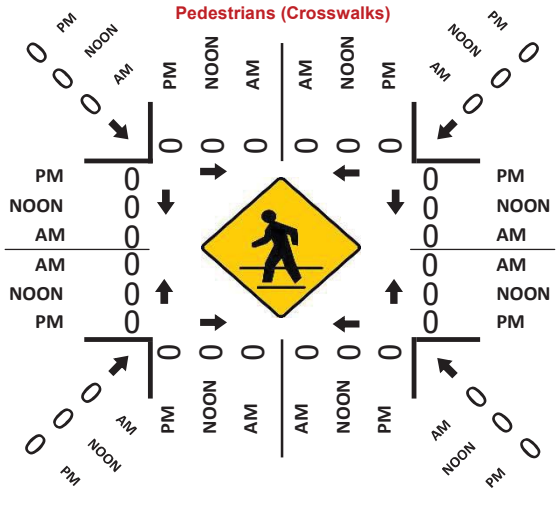
PV (NOON)



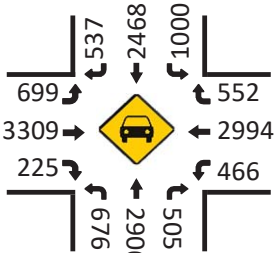
LT (NOON)



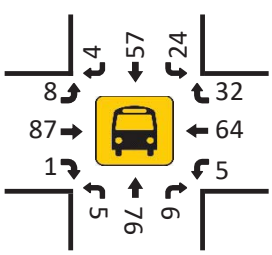
Pedestrians (Crosswalks)



PV (PM)



LT (PM)



City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Van Nuys Blvd

East/West Sherman Way

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	182	272	258	287
BIKES	24	44	15	17
BUSES	64	78	32	48

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	283	7.45	397	8.00	359	7.45	360	7.30
PM PK 15 MIN	386	17.15	374	16.45	407	17.30	383	17.00
AM PK HOUR	990	7.30	1445	7.15	1343	7.15	1344	7.30
PM PK HOUR	1447	17.00	1425	16.45	1475	16.45	1401	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	176	567	95	838
8-9	148	596	107	851
9-10	146	631	109	886
15-16	230	896	175	1301
16-17	218	991	164	1373
17-18	228	1053	166	1447
TOTAL	1146	4734	816	6696

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	196	1083	108	1387
8-9	215	1056	131	1402
9-10	250	837	122	1209
15-16	292	822	181	1295
16-17	345	832	189	1366
17-18	374	847	168	1389
TOTAL	1672	5477	899	8048

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2225	53	5	37	2
2253	39	4	45	0
2095	73	3	74	3
2596	68	4	107	11
2739	84	6	98	11
2836	79	8	123	3
14744	396	30	484	30

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	128	1064	87	1279
8-9	163	968	137	1268
9-10	171	950	95	1216
15-16	235	1062	81	1378
16-17	234	1108	74	1416
17-18	230	1163	71	1464
TOTAL	1161	6315	545	8021

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	166	1010	132	1308
8-9	181	904	160	1245
9-10	145	756	186	1087
15-16	160	966	191	1317
16-17	148	990	191	1329
17-18	158	1054	188	1400
TOTAL	958	5680	1048	7686

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2587	75	8	47	1
2513	64	6	50	4
2303	84	0	65	2
2695	136	12	65	5
2745	100	4	67	8
2864	90	6	92	4
15707	549	36	386	24

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Van Nuys Blvd

East/West Sherman Way

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	304	461	440	491
BIKES	24	44	15	5
BUSES	103	131	55	87

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	291	7.45	423	8.00	378	7.45	380	7.30
PM PK 15 MIN	351	17.15	391	16.45	410	17.30	398	17.00
AM PK HOUR	1031	7.30	1569	7.15	1418	7.15	1448	7.30
PM PK HOUR	1496	17.00	1482	16.45	1497	16.45	1459	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	180	610	100	890
8-9	156	638	118	912
9-10	158	672	115	945
15-16	234	961	181	1376
16-17	220	1028	166	1414
17-18	232	1096	168	1496
TOTAL	1180	5005	848	7033

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	227	1173	117	1517
8-9	243	1112	137	1492
9-10	279	900	128	1307
15-16	313	868	187	1368
16-17	361	867	191	1419
17-18	389	880	170	1439
TOTAL	1812	5800	930	8542

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2407	53	5	37	2
2404	39	4	45	0
2252	73	3	74	3
2744	68	4	107	11
2833	84	6	98	11
2935	79	8	123	3
15575	396	30	484	30

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	135	1128	96	1359
8-9	166	1038	144	1348
9-10	182	1040	97	1319
15-16	241	1131	83	1455
16-17	240	1179	76	1495
17-18	230	1185	71	1486
TOTAL	1194	6701	567	8462

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	168	1076	151	1395
8-9	198	980	198	1376
9-10	149	814	211	1174
15-16	166	1008	219	1393
16-17	150	1032	220	1402
17-18	160	1086	204	1450
TOTAL	991	5996	1203	8190

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2754	75	8	47	1
2724	64	6	50	4
2493	84	0	65	2
2848	136	12	65	5
2897	100	4	67	8
2936	90	6	92	4
16652	549	36	386	24

Location: Tyrone Ave & Sherman Way
City: Van Nuys
Control: Signalized

Project ID: 18-5782-007
Date: 12/12/2018

Total

NS/EW Streets:	Tyrone Ave				Tyrone Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	11	2	4	0	5	8	7	0	2	274	7	0	2	291	2	0	615
7:15 AM	17	4	6	0	13	14	6	0	0	353	13	0	9	320	2	1	758
7:30 AM	26	13	14	0	11	24	13	0	4	370	23	0	18	342	6	0	864
7:45 AM	36	16	19	0	11	30	10	0	0	379	25	0	10	326	5	0	867
8:00 AM	38	5	10	0	4	11	14	0	6	330	13	0	11	358	6	0	806
8:15 AM	13	4	6	0	7	8	4	0	3	335	9	0	6	331	4	0	730
8:30 AM	13	3	4	0	5	2	3	0	4	320	9	0	4	295	3	1	666
8:45 AM	12	5	8	0	8	8	6	0	1	315	5	0	7	305	4	0	684
9:00 AM	13	6	9	0	6	4	6	0	4	321	6	0	7	229	3	0	614
9:15 AM	10	5	7	0	7	5	7	0	3	338	6	0	4	289	3	0	684
9:30 AM	16	4	1	0	3	1	2	0	2	331	3	2	7	269	0	0	641
9:45 AM	11	4	5	0	6	4	5	0	7	332	10	0	3	289	5	3	684
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	216	71	93	0	86	119	83	0	36	3998	129	2	88	3644	43	5	8613
APPROACH %'s :	56.84%	18.68%	24.47%	0.00%	29.86%	41.32%	28.82%	0.00%	0.86%	95.99%	3.10%	0.05%	2.33%	96.40%	1.14%	0.13%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	117	38	49	0	39	79	43	0	10	1432	74	0	48	1346	19	1	3295
PEAK HR FACTOR :	0.770	0.594	0.645	0.000	0.750	0.658	0.768	0.000	0.417	0.945	0.740	0.000	0.667	0.940	0.792	0.250	0.950
	0.718				0.789				0.938				0.943				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	14	7	12	0	2	4	7	0	4	330	13	0	8	356	3	0	760
3:15 PM	18	7	10	0	4	6	9	0	2	371	9	0	2	304	3	0	745
3:30 PM	15	11	20	0	6	8	9	0	4	372	9	1	4	304	6	0	769
3:45 PM	16	15	6	0	5	5	7	0	4	411	8	0	10	317	8	0	812
4:00 PM	11	6	13	0	3	7	4	0	4	363	12	0	3	319	2	0	747
4:15 PM	17	13	11	0	3	7	5	0	6	384	18	1	9	282	1	0	757
4:30 PM	15	17	11	0	4	9	4	0	2	409	21	0	7	338	5	1	843
4:45 PM	15	16	14	0	7	7	5	0	7	387	23	0	11	393	3	1	889
5:00 PM	20	15	19	0	7	8	6	0	5	412	25	0	9	381	5	0	912
5:15 PM	9	15	18	0	6	8	6	0	4	371	17	0	10	363	4	0	831
5:30 PM	18	6	18	0	7	6	5	0	3	414	21	0	7	323	3	0	831
5:45 PM	21	7	16	0	4	11	7	0	4	436	15	1	5	336	4	0	867
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	189	135	168	0	58	86	74	0	49	4660	191	3	85	4016	47	2	9763
APPROACH %'s :	38.41%	27.44%	34.15%	0.00%	26.61%	39.45%	33.94%	0.00%	1.00%	95.04%	3.90%	0.06%	2.05%	96.77%	1.13%	0.05%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	59	63	62	0	24	32	21	0	18	1579	86	0	37	1475	17	2	3475
PEAK HR FACTOR :	0.738	0.926	0.816	0.000	0.857	0.889	0.875	0.000	0.643	0.958	0.860	0.000	0.841	0.938	0.850	0.500	0.953
	0.852				0.917				0.952				0.938				

Location: Tyrone Ave & Sherman Way
City: Van Nuys
Control: Signalized

Project ID: 18-5782-007
Date: 12/12/2018

Totals PCE

NS/EW Streets:	Tyrone Ave				Tyrone Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	2	5	0	5	9	7	0	2	283	7	0	2	301	2	0	637
7:15 AM	17	4	6	0	14	15	6	0	0	361	13	0	9	326	2	1	774
7:30 AM	26	14	14	0	11	24	13	0	4	379	24	0	18	347	6	0	880
7:45 AM	36	16	20	0	11	30	11	0	0	388	25	0	10	333	6	0	886
8:00 AM	39	5	10	0	4	11	14	0	6	342	13	0	11	367	7	0	829
8:15 AM	16	4	6	0	7	8	4	0	3	341	9	0	6	345	4	0	753
8:30 AM	14	3	4	0	5	2	3	0	4	336	9	0	4	309	3	1	697
8:45 AM	12	5	8	0	8	8	6	0	1	322	5	0	7	318	4	0	704
9:00 AM	13	6	10	0	6	4	7	0	4	333	6	0	7	232	3	0	631
9:15 AM	10	5	7	0	8	5	7	0	3	348	6	0	4	305	3	0	711
9:30 AM	16	4	1	0	4	1	2	0	2	349	3	2	8	274	0	0	666
9:45 AM	11	4	5	0	6	4	5	0	7	348	10	0	3	299	5	3	710
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	222	72	96	0	89	121	85	0	36	4130	130	2	89	3756	45	5	8878
APPROACH %'s :	56.92%	18.46%	24.62%	0.00%	30.17%	41.02%	28.81%	0.00%	0.84%	96.09%	3.02%	0.05%	2.28%	96.43%	1.16%	0.13%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	118	39	50	0	40	80	44	0	10	1470	75	0	48	1373	21	1	3369
PEAK HR FACTOR :	0.756	0.609	0.625	0.000	0.714	0.667	0.786	0.000	0.417	0.947	0.750	0.000	0.667	0.935	0.750	0.250	0.951
	0.719				0.788				0.941				0.937				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	14	7	12	0	2	4	7	0	4	341	13	0	8	362	3	0	777
3:15 PM	19	7	10	0	4	6	10	0	2	377	9	0	2	311	3	0	760
3:30 PM	15	11	21	0	6	8	9	0	4	376	10	1	4	313	6	0	784
3:45 PM	16	15	7	0	6	5	9	0	4	424	8	0	11	324	8	0	837
4:00 PM	11	6	14	0	3	7	4	0	4	372	12	0	3	324	2	0	762
4:15 PM	17	13	11	0	3	7	5	0	6	394	18	1	9	287	1	0	772
4:30 PM	15	17	11	0	5	9	4	0	2	416	22	0	7	344	6	1	859
4:45 PM	15	16	14	0	7	7	5	0	8	392	23	0	11	397	3	1	899
5:00 PM	20	15	19	0	7	8	6	0	5	414	25	0	9	388	5	0	921
5:15 PM	9	15	18	0	6	8	6	0	4	375	17	0	10	370	4	0	842
5:30 PM	18	6	18	0	7	6	5	0	3	416	21	0	7	327	3	0	837
5:45 PM	21	7	16	0	4	11	7	0	4	441	15	1	5	340	4	0	876
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	190	135	171	0	60	86	77	0	50	4738	193	3	86	4087	48	2	9926
APPROACH %'s :	38.31%	27.22%	34.48%	0.00%	26.91%	38.57%	34.53%	0.00%	1.00%	95.06%	3.87%	0.06%	2.04%	96.78%	1.14%	0.05%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	59	63	62	0	25	32	21	0	19	1597	87	0	37	1499	18	2	3521
PEAK HR FACTOR :	0.74	0.926	0.816	0.000	0.893	0.889	0.875	0.000	0.594	0.960	0.870	0.000	0.841	0.944	0.750	0.500	0.956
	0.852				0.929				0.959				0.944				

Tyrone Ave & Sherman Way

Peak Hour Turning Movement Count

ID: 18-5782-007
City: Van Nuys

Day: Wednesday
Date: 12/12/2018

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	07:00 AM - 10:00 AM
NOON	NONE	NONE
PM	04:30 PM - 05:30 PM	03:00 PM - 06:00 PM

Tyrone Ave — SOUTHBOUND

	Right	Through	Left	U-Turn	Departing
AM	43	79	39	0	67
NOON	0	0	0	0	0
PM	21	32	24	0	98
Lanes	0	1	0	0	

Sherman Way — WESTBOUND

	Lanes	PM	NOON	AM
Right	0	17	0	19
Through	3	1475	0	1346
Left	1	37	0	48
U-Turn	0	2	0	1
Departing		1667	0	1521

Sherman Way — EASTBOUND

	AM	NOON	PM	Lanes
Departing	1506	0	1555	
U-Turn	0	0	0	0
Left	10	0	18	1
Through	1432	0	1579	3
Right	74	0	86	0

Tyrone Ave — NORTHBOUND

	Departing	U-Turn	Left	Through	Right
Lanes		0	0	1	0
PM	155	0	59	63	62
NOON	0	0	0	0	0
AM	201	0	117	38	49

CONTROL

Signalized

	AM	NOON	PM
TEV	3295	0	3475
PHF	0.95		0.95

PV (AM)

	Left	Through	Right
Southbound	83	117	81
Eastbound	38	3814	128
Westbound	92	3487	41
Northbound	207	70	90

PV (NOON)

	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

PV (PM)

	Left	Through	Right
Southbound	56	86	72
Eastbound	51	4535	189
Westbound	86	3908	46
Northbound	188	135	164

LT (AM)

	Left	Through	Right
Southbound	2	2	1
Eastbound	0	148	0
Westbound	1	125	1
Northbound	7	1	2

LT (NOON)

	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

LT (PM)

	Left	Through	Right
Southbound	2	0	1
Eastbound	1	115	2
Westbound	1	98	1
Northbound	1	0	4

Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg	0	0	0 (each direction)
South leg	0	0	0 (each direction)
East leg	0	0	0 (each direction)
West leg	0	0	0 (each direction)
Diagonals	0	0	0

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Tyrone Ave

East/West Sherman Way

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	18	11	313	270
BIKES	3	2	20	26
BUSES	0	0	51	48

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	70	7.45	50	7.45	395	7.45	366	8.00
PM PK 15 MIN	54	17.00	23	15.30	452	17.45	402	16.45
AM PK HOUR	201	7.15	158	7.15	1476	7.15	1383	7.30
PM PK HOUR	184	16.30	81	17.00	1716	17.00	1508	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	88	34	41	163
8-9	69	17	28	114
9-10	50	19	21	90
15-16	62	40	45	147
16-17	58	52	48	158
17-18	68	43	71	182
TOTAL	395	205	254	854

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	39	74	35	148
8-9	24	29	27	80
9-10	20	14	19	53
15-16	16	23	31	70
16-17	16	30	18	64
17-18	24	33	24	81
TOTAL	139	203	154	496

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
311	34	16	17	13
194	26	0	14	0
143	27	1	9	0
217	27	8	20	6
222	19	4	15	6
263	25	2	16	6
1350	158	31	91	31

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	6	1336	67	1409
8-9	14	1253	36	1303
9-10	18	1267	25	1310
15-16	15	1443	38	1496
16-17	19	1506	73	1598
17-18	17	1621	78	1716
TOTAL	89	8426	317	8832

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	40	1251	14	1305
8-9	29	1238	16	1283
9-10	23	1037	11	1071
15-16	23	1250	20	1293
16-17	32	1310	10	1352
17-18	31	1381	16	1428
TOTAL	178	7467	87	7732

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2714	16	3	9	3
2586	11	2	5	1
2381	15	0	4	1
2789	13	12	5	2
2950	12	4	7	5
3144	13	4	14	2
16564	80	25	44	14

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Tyrone Ave

East/West Sherman Way

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	32	23	527	458
BIKES	3	2	19	10
BUSES	0	0	82	79

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	72	7.45	52	7.45	418	7.45	387	8.00
PM PK 15 MIN	43	17.00	23	15.30	463	17.45	414	16.45
AM PK HOUR	207	7.15	164	7.15	1568	7.15	1479	7.30
PM PK HOUR	184	16.30	81	17.00	1753	17.00	1569	16.30

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	91	36	45	172
8-9	81	17	28	126
9-10	50	19	23	92
15-16	64	40	50	154
16-17	58	52	50	160
17-18	68	43	71	182
TOTAL	412	207	267	886

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	41	78	37	156
8-9	24	29	27	80
9-10	24	14	21	59
15-16	18	23	35	76
16-17	18	30	18	66
17-18	24	33	24	81
TOTAL	149	207	162	518

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
328	34	16	17	13
206	26	0	14	0
151	27	1	9	0
230	27	8	20	6
226	19	4	15	6
263	25	2	16	6
1404	158	31	91	31

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	6	1426	69	1501
8-9	14	1353	36	1403
9-10	16	1389	25	1430
15-16	14	1533	40	1587
16-17	20	1590	75	1685
17-18	16	1659	78	1753
TOTAL	86	8950	323	9359

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	39	1322	16	1377
8-9	28	1352	18	1398
9-10	22	1120	11	1153
15-16	25	1323	20	1368
16-17	30	1368	12	1410
17-18	31	1437	16	1484
TOTAL	175	7922	93	8190

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2878	16	3	9	3
2801	11	2	5	1
2583	15	0	4	1
2955	13	12	5	2
3095	12	4	7	5
3237	13	4	14	2
17549	80	25	44	14

Location: Hazeltine Ave & Sherman Way
City: Van Nuys
Control: Signalized

Project ID: 18-5782-008
Date: 12/12/2018

Total

NS/EW Streets:	Hazeltine Ave				Hazeltine Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	11	34	13	0	23	81	21	0	6	253	34	0	49	250	29	0	804
7:15 AM	21	56	29	0	34	93	12	0	10	344	32	0	71	293	27	0	1022
7:30 AM	17	64	33	0	33	101	9	0	6	327	33	0	67	318	35	0	1043
7:45 AM	29	73	49	0	27	87	7	0	10	375	25	0	75	307	31	0	1095
8:00 AM	34	62	58	0	19	58	8	0	12	294	41	0	63	327	44	0	1020
8:15 AM	30	59	45	0	14	70	8	0	10	306	31	0	46	289	34	0	942
8:30 AM	27	52	26	0	22	46	9	0	5	281	28	0	47	274	22	0	839
8:45 AM	29	48	26	0	12	72	12	0	15	272	43	0	42	265	24	0	860
9:00 AM	34	41	30	0	25	45	7	0	12	293	34	0	46	213	22	0	802
9:15 AM	33	38	32	0	21	44	7	0	2	315	42	0	41	241	26	0	842
9:30 AM	32	45	34	0	21	49	8	0	4	303	31	0	41	236	21	0	825
9:45 AM	31	37	36	0	33	73	11	0	8	304	31	0	41	265	17	0	887
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	328	609	411	0	284	819	119	0	100	3667	405	0	629	3278	332	0	10981
APPROACH %'s :	24.33%	45.18%	30.49%	0.00%	23.24%	67.02%	9.74%	0.00%	2.40%	87.90%	9.71%	0.00%	14.84%	77.33%	7.83%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	101	255	169	0	113	339	36	0	38	1340	131	0	276	1245	137	0	4180
PEAK HR FACTOR :	0.743	0.873	0.728	0.000	0.831	0.839	0.750	0.000	0.792	0.893	0.799	0.000	0.920	0.952	0.778	0.000	0.954
	0.852				0.853				0.920				0.955				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	1	0	1	1	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	41	66	32	0	25	45	6	1	15	299	34	0	32	304	27	0	927
3:15 PM	31	82	51	0	29	49	8	0	7	318	26	0	27	275	23	0	926
3:30 PM	45	89	43	0	19	47	10	0	15	352	36	0	27	266	27	0	976
3:45 PM	38	84	42	0	27	49	10	0	16	354	35	0	39	293	28	0	1015
4:00 PM	29	92	49	0	26	67	14	0	9	332	36	0	37	291	29	0	1011
4:15 PM	41	91	53	0	19	55	7	0	16	331	30	0	38	250	37	0	968
4:30 PM	43	76	54	0	13	59	8	0	10	364	42	0	31	305	28	0	1033
4:45 PM	50	83	45	0	24	59	9	0	15	358	25	0	36	363	26	0	1093
5:00 PM	52	91	63	0	30	59	11	0	11	402	31	0	27	329	29	0	1135
5:15 PM	46	103	52	0	28	71	10	0	9	357	40	0	35	339	31	0	1121
5:30 PM	43	84	62	0	25	73	14	0	15	394	25	0	31	305	29	0	1100
5:45 PM	42	79	50	0	26	45	8	0	10	378	39	0	38	319	30	0	1064
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	501	1020	596	0	291	678	115	1	148	4239	399	0	398	3639	344	0	12369
APPROACH %'s :	23.67%	48.18%	28.15%	0.00%	26.82%	62.49%	10.60%	0.09%	3.09%	88.57%	8.34%	0.00%	9.08%	83.06%	7.85%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	191	361	222	0	107	262	44	0	50	1511	121	0	129	1336	115	0	4449
PEAK HR FACTOR :	0.918	0.876	0.881	0.000	0.892	0.897	0.786	0.000	0.833	0.940	0.756	0.000	0.896	0.920	0.927	0.000	0.980
	0.939				0.922				0.947				0.929				

Location: Hazeltine Ave & Sherman Way
City: Van Nuys
Control: Signalized

Project ID: 18-5782-008
Date: 12/12/2018

Totals PCE

NS/EW Streets:	Hazeltine Ave				Hazeltine Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	11	34	13	0	24	81	21	0	6	259	35	0	50	261	29	0	824
7:15 AM	22	57	31	0	34	93	12	0	10	351	35	0	73	300	27	0	1045
7:30 AM	18	64	34	0	34	101	9	0	6	337	34	0	68	321	35	0	1061
7:45 AM	30	73	50	0	27	89	7	0	11	383	27	0	76	314	32	0	1119
8:00 AM	34	63	58	0	20	59	8	0	12	301	44	0	64	338	44	0	1045
8:15 AM	31	60	46	0	14	71	8	0	10	315	31	0	47	301	35	0	969
8:30 AM	28	52	26	0	22	47	9	0	5	292	29	0	49	287	23	0	869
8:45 AM	30	48	26	0	12	73	13	0	16	280	44	0	43	278	25	0	888
9:00 AM	35	41	30	0	26	45	7	0	13	303	35	0	51	216	22	0	824
9:15 AM	34	39	33	0	22	45	7	0	2	326	42	0	41	256	26	0	873
9:30 AM	33	47	35	0	23	51	8	0	4	318	35	0	41	241	21	0	857
9:45 AM	32	37	36	0	38	77	11	0	8	321	32	0	42	274	18	0	926
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	338	615	418	0	296	832	120	0	103	3786	423	0	645	3387	337	0	11300
APPROACH %'s :	24.65%	44.86%	30.49%	0.00%	23.72%	66.67%	9.62%	0.00%	2.39%	87.80%	9.81%	0.00%	14.76%	77.52%	7.71%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	104	257	173	0	115	342	36	0	39	1372	140	0	281	1273	138	0	4270
PEAK HR FACTOR :	0.765	0.880	0.746	0.000	0.846	0.847	0.750	0.000	0.813	0.896	0.795	0.000	0.924	0.942	0.784	0.000	0.954
	0.861				0.856				0.921				0.948				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	43	66	33	0	25	46	6	1	15	310	35	0	32	308	28	0	948
3:15 PM	32	82	52	0	30	49	8	0	7	324	28	0	28	281	24	0	945
3:30 PM	46	90	43	0	19	47	10	0	15	356	37	0	27	274	27	0	991
3:45 PM	39	85	43	0	27	50	10	0	17	366	36	0	40	299	28	0	1040
4:00 PM	30	94	49	0	27	67	14	0	9	339	36	0	37	295	29	0	1026
4:15 PM	42	92	53	0	19	56	7	0	17	339	31	0	39	254	37	0	986
4:30 PM	43	76	54	0	14	59	8	0	10	373	42	0	31	311	29	0	1050
4:45 PM	51	83	46	0	24	59	9	0	15	363	26	0	36	367	26	0	1105
5:00 PM	53	91	63	0	33	60	11	0	11	405	31	0	27	335	30	0	1150
5:15 PM	47	103	52	0	28	71	10	0	9	361	41	0	35	343	31	0	1131
5:30 PM	45	85	63	0	25	73	14	0	16	395	25	0	31	307	29	0	1108
5:45 PM	43	79	50	0	26	46	8	0	10	383	40	0	38	323	30	0	1076
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	514	1026	601	0	297	683	115	1	151	4314	408	0	401	3697	348	0	12556
APPROACH %'s :	24.01%	47.92%	28.07%	0.00%	27.10%	62.32%	10.49%	0.09%	3.10%	88.53%	8.37%	0.00%	9.02%	83.15%	7.83%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	196	362	224	0	110	263	44	0	51	1524	123	0	129	1352	116	0	4494
PEAK HR FACTOR :	0.92	0.879	0.889	0.000	0.833	0.901	0.786	0.000	0.797	0.941	0.750	0.000	0.896	0.921	0.935	0.000	0.977
	0.944				0.931				0.950				0.931				

Hazeltine Ave & Sherman Way

Peak Hour Turning Movement Count

ID: 18-5782-008
City: Van Nuys

Day: Wednesday
Date: 12/12/2018

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	07:00 AM - 10:00 AM
NONE	NONE
04:45 PM - 05:45 PM	03:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	4180	0	4449
PHF	0.95		0.98

Hazeltine Ave — SOUTHBOUND

	L	T	R	U	Total	
AM	36	339	113	0	430	AM
NOON	0	0	0	0	0	NOON
PM	44	262	107	0	526	PM

Sherman Way — EASTBOUND

AM	NOON	PM	
1382	0	1571	
0	0	0	0
38	0	50	1
1340	0	1511	3
131	0	121	0

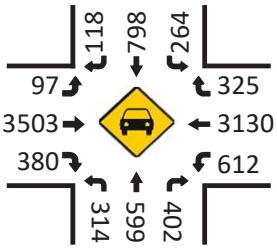
Sherman Way — WESTBOUND

	PM	NOON	AM
0	115	0	137
3	1336	0	1245
1	129	0	276
0	0	0	0
	1840	0	1622

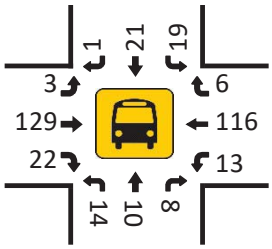
Hazeltine Ave — NORTHBOUND

	L	T	R	U	Total	
PM	512	0	191	361	222	PM
NOON	0	0	0	0	0	NOON
AM	746	0	101	255	169	AM

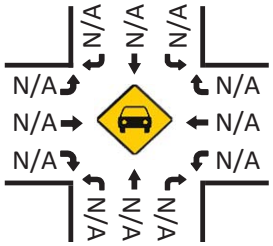
PV (AM)



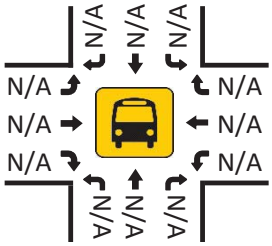
LT (AM)



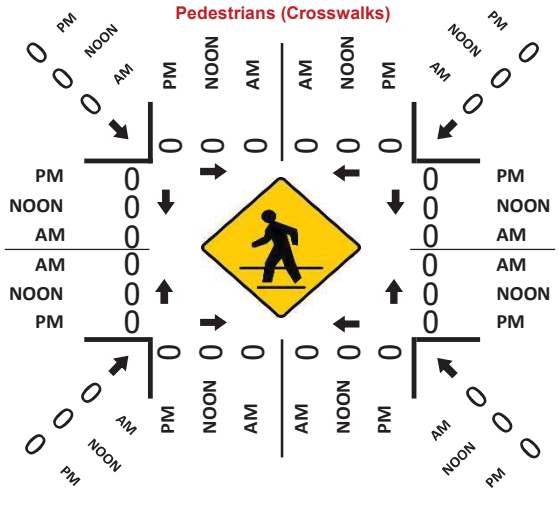
PV (NOON)



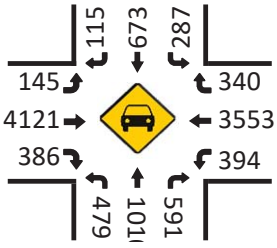
LT (NOON)



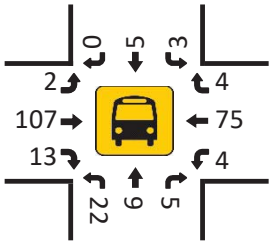
Pedestrians (Crosswalks)



PV (PM)



LT (PM)



City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Hazeltine Ave

East/West Sherman Way

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	70	52	326	266
BIKES	5	6	23	31
BUSES	19	0	51	29

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	152	8.00	142	7.30	399	7.45	423	8.00
PM PK 15 MIN	205	17.00	112	17.30	439	17.00	419	16.45
AM PK HOUR	546	7.30	523	7.00	1466	7.15	1619	7.15
PM PK HOUR	766	16.45	411	16.45	1697	17.00	1563	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	77	225	118	420
8-9	118	218	154	490
9-10	128	156	130	414
15-16	150	317	165	632
16-17	163	337	200	700
17-18	176	356	226	758
TOTAL	812	1609	993	3414

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	115	359	49	523
8-9	65	240	36	341
9-10	84	199	33	316
15-16	100	188	34	322
16-17	80	239	38	357
17-18	108	246	43	397
TOTAL	552	1471	233	2256

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
943	86	86	41	24
831	84	48	22	3
730	97	22	24	2
954	38	6	27	10
1057	37	11	26	8
1155	35	8	17	2
5670	377	181	157	49

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	31	1264	116	1411
8-9	41	1108	140	1289
9-10	25	1161	135	1321
15-16	52	1281	128	1461
16-17	49	1348	133	1530
17-18	44	1518	135	1697
TOTAL	242	7680	787	8709

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	256	1138	121	1515
8-9	192	1106	120	1418
9-10	166	916	84	1166
15-16	123	1111	103	1337
16-17	140	1187	119	1446
17-18	131	1277	118	1526
TOTAL	1008	6735	665	8408

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2926	44	13	78	73
2707	26	8	46	15
2487	25	6	66	4
2798	16	13	12	3
2976	32	5	22	9
3223	15	3	18	5
17117	158	48	242	109

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Hazeltine Ave

East/West Sherman Way

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	117	89	553	461
BIKES	5	6	22	13
BUSES	35	0	91	50

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	155	8.00	144	7.30	426	7.45	448	8.00
PM PK 15 MIN	183	17.00	112	17.30	449	17.00	429	16.45
AM PK HOUR	568	7.30	532	7.00	1566	7.15	1702	7.15
PM PK HOUR	789	16.45	417	16.45	1741	17.00	1605	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	86	228	128	442
8-9	129	223	156	508
9-10	140	164	134	438
15-16	166	323	171	660
16-17	174	345	202	721
17-18	192	358	228	778
TOTAL	887	1641	1019	3547

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	119	364	49	532
8-9	68	250	38	356
9-10	109	218	33	360
15-16	101	192	34	327
16-17	84	241	38	363
17-18	112	250	43	405
TOTAL	593	1515	235	2343

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
974	86	86	41	24
864	84	48	22	3
798	97	22	24	2
987	38	6	27	10
1084	37	11	26	8
1183	35	8	17	2
5890	377	181	157	49

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	33	1340	137	1510
8-9	43	1197	154	1394
9-10	27	1276	150	1453
15-16	54	1364	144	1562
16-17	51	1425	140	1616
17-18	46	1553	142	1741
TOTAL	254	8155	867	9276

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	267	1206	123	1596
8-9	203	1213	127	1543
9-10	175	992	87	1254
15-16	127	1171	107	1405
16-17	143	1236	121	1500
17-18	131	1316	120	1567
TOTAL	1046	7134	685	8865

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
3106	44	13	78	73
2937	26	8	46	15
2707	25	6	66	4
2967	16	13	12	3
3116	32	5	22	9
3308	15	3	18	5
18141	158	48	242	109

Location: Woodman Ave & Sherman Way
City: Van Nuys
Control: Signalized

Project ID: 18-5782-009
Date: 12/12/2018

Total

NS/EW Streets:	Woodman Ave				Woodman Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	2	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	17	106	23	0	56	282	105	0	39	242	32	0	37	221	18	0	1178
7:15 AM	33	129	51	0	67	345	118	0	48	346	24	0	31	217	23	0	1432
7:30 AM	37	169	40	0	68	329	145	1	65	325	25	0	31	230	23	0	1488
7:45 AM	52	178	39	0	66	255	145	0	69	329	34	0	24	241	31	0	1463
8:00 AM	37	182	52	0	62	258	123	1	57	283	26	0	31	231	46	0	1389
8:15 AM	28	113	35	0	39	227	100	0	61	287	27	0	27	223	40	0	1207
8:30 AM	37	129	39	0	59	252	95	1	57	250	31	0	26	211	28	0	1215
8:45 AM	32	112	42	0	60	312	90	0	53	233	33	0	44	208	39	0	1258
9:00 AM	34	103	34	0	53	219	63	0	43	262	42	0	33	186	34	0	1106
9:15 AM	45	150	35	0	63	232	72	0	64	264	29	0	37	200	24	0	1215
9:30 AM	27	131	38	1	67	230	66	0	50	251	27	0	41	192	31	0	1152
9:45 AM	36	155	55	0	57	244	81	0	52	306	36	0	43	186	44	0	1295
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	415	1657	483	1	717	3185	1203	3	658	3378	366	0	405	2546	381	0	15398
APPROACH %'s :	16.24%	64.83%	18.90%	0.04%	14.04%	62.35%	23.55%	0.06%	14.95%	76.74%	8.31%	0.00%	12.15%	76.41%	11.43%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	159	658	182	0	263	1187	531	2	239	1283	109	0	117	919	123	0	5772
PEAK HR FACTOR :	0.764	0.904	0.875	0.000	0.967	0.860	0.916	0.500	0.866	0.927	0.801	0.000	0.944	0.953	0.668	0.000	0.970
	0.922				0.913				0.944				0.941				

NS/EW Streets:	Woodman Ave				Woodman Ave				Sherman Way				Sherman Way				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	2	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	53	212	40	0	66	202	77	0	59	276	37	0	34	231	58	0	1345
3:15 PM	34	227	35	0	51	198	86	0	65	248	31	0	36	224	64	0	1299
3:30 PM	34	202	40	0	51	190	93	0	81	293	38	0	33	203	78	0	1336
3:45 PM	37	239	39	0	51	196	90	0	72	311	32	0	32	232	57	0	1388
4:00 PM	38	231	34	0	44	206	86	0	81	260	29	0	46	231	68	0	1354
4:15 PM	34	234	37	0	51	201	76	0	77	265	29	0	41	221	62	0	1328
4:30 PM	39	261	42	0	51	211	95	1	91	264	52	0	29	260	42	0	1438
4:45 PM	30	234	35	0	50	209	112	0	71	295	40	0	51	286	39	0	1452
5:00 PM	34	220	32	0	59	212	90	0	75	312	31	0	45	261	44	0	1415
5:15 PM	35	223	40	0	47	200	94	0	89	308	31	0	40	253	60	0	1420
5:30 PM	43	238	37	0	43	199	96	0	89	306	38	0	45	250	56	0	1440
5:45 PM	51	194	39	0	49	199	85	0	95	305	34	0	40	259	45	0	1395
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	462	2715	450	0	613	2423	1080	1	945	3443	422	0	472	2911	673	0	16610
APPROACH %'s :	12.74%	74.86%	12.41%	0.00%	14.89%	58.85%	26.23%	0.02%	19.65%	71.58%	8.77%	0.00%	11.64%	71.77%	16.59%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	142	915	144	0	199	820	392	0	324	1221	140	0	181	1050	199	0	5727
PEAK HR FACTOR :	0.826	0.961	0.900	0.000	0.843	0.967	0.875	0.000	0.910	0.978	0.875	0.000	0.887	0.918	0.829	0.000	0.986
	0.944				0.951				0.973				0.951				

Location: Woodman Ave & Sherman Way
City: Van Nuys
Control: Signalized

Project ID: 18-5782-009
Date: 12/12/2018

Totals PCE

NS/EW Streets:	Woodman Ave				Woodman Ave				Sherman Way				Sherman Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	17	107	23	0	58	287	108	0	39	248	34	0	37	227	20	0	1205
7:15 AM	33	133	51	0	67	348	121	0	50	352	25	0	33	222	24	0	1459
7:30 AM	37	175	41	0	69	333	146	1	67	330	25	0	32	235	24	0	1515
7:45 AM	52	181	40	0	69	258	147	0	69	338	35	0	24	246	33	0	1492
8:00 AM	38	183	52	0	64	264	128	1	59	290	26	0	32	240	47	0	1424
8:15 AM	28	116	36	0	42	229	103	0	61	297	27	0	30	236	40	0	1245
8:30 AM	37	134	40	0	63	259	99	1	58	259	32	0	26	220	29	0	1257
8:45 AM	33	113	44	0	61	317	93	0	54	243	35	0	45	222	39	0	1299
9:00 AM	36	108	34	0	54	226	65	0	45	268	46	0	35	189	36	0	1142
9:15 AM	46	153	35	0	64	234	75	0	66	275	30	0	39	211	24	0	1252
9:30 AM	28	135	39	1	68	234	66	0	51	269	28	0	42	197	32	0	1190
9:45 AM	37	158	57	0	58	248	85	0	52	320	38	0	45	192	45	0	1335
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	422	1696	492	1	737	3237	1236	3	671	3489	381	0	420	2637	393	0	15815
APPROACH %'s :	16.16%	64.96%	18.84%	0.04%	14.14%	62.09%	23.71%	0.06%	14.78%	76.83%	8.39%	0.00%	12.17%	76.43%	11.39%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	160	672	184	0	269	1203	542	2	245	1310	111	0	121	943	128	0	5890
PEAK HR FACTOR :	0.769	0.918	0.885	0.000	0.975	0.864	0.922	0.500	0.888	0.930	0.793	0.000	0.917	0.958	0.681	0.000	0.972
	0.930				0.918				0.942				0.934				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	53	214	41	0	67	206	78	0	62	284	38	0	34	235	58	0	1370
3:15 PM	34	230	36	0	53	200	90	0	67	253	32	0	37	228	67	0	1327
3:30 PM	34	210	40	0	51	191	94	0	82	297	38	0	34	209	79	0	1359
3:45 PM	37	241	40	0	51	201	93	0	75	319	32	0	33	236	57	0	1415
4:00 PM	38	233	34	0	47	208	86	0	82	267	29	0	46	235	70	0	1375
4:15 PM	34	239	38	0	52	202	78	0	80	271	29	0	41	225	63	0	1352
4:30 PM	40	264	43	0	52	214	96	1	96	269	52	0	29	264	42	0	1462
4:45 PM	30	235	38	0	50	211	112	0	72	299	40	0	51	289	40	0	1467
5:00 PM	34	222	33	0	59	214	93	0	75	317	32	0	46	267	44	0	1436
5:15 PM	35	224	41	0	47	200	94	0	91	310	31	0	40	256	61	0	1430
5:30 PM	43	241	38	0	43	200	97	0	89	307	38	0	45	253	57	0	1451
5:45 PM	51	195	39	0	51	200	87	0	98	308	34	0	40	261	45	0	1409
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	463	2748	461	0	623	2447	1098	1	969	3501	425	0	476	2958	683	0	16853
APPROACH %'s :	12.61%	74.84%	12.55%	0.00%	14.94%	58.70%	26.34%	0.02%	19.80%	71.52%	8.68%	0.00%	11.56%	71.85%	16.59%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	142	922	150	0	199	825	396	0	327	1233	141	0	182	1065	202	0	5784
PEAK HR FACTOR :	0.83	0.956	0.915	0.000	0.843	0.964	0.884	0.000	0.898	0.972	0.881	0.000	0.892	0.921	0.828	0.000	0.986
	0.943				0.952				0.980				0.953				

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Woodman Ave

East/West Sherman Way

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: Yes I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	130	194	317	239
BIKES	16	44	23	24
BUSES	8	9	32	29

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	269	8.00	538	7.30	421	7.45	297	8.00
PM PK 15 MIN	336	16.30	369	16.45	431	17.30	369	16.45
AM PK HOUR	982	7.15	1950	7.00	1591	7.15	1140	7.30
PM PK HOUR	1246	15.45	1421	16.30	1701	17.00	1406	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	139	568	151	858
8-9	132	527	161	820
9-10	135	525	158	818
15-16	158	869	150	1177
16-17	140	946	144	1230
17-18	163	864	144	1171
TOTAL	867	4299	908	6074

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	255	1192	503	1950
8-9	216	1024	387	1627
9-10	235	913	270	1418
15-16	216	775	339	1330
16-17	190	820	363	1373
17-18	198	806	360	1364
TOTAL	1310	5530	2222	9062

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2808	15	4	26	10
2447	21	1	24	8
2236	33	0	34	0
2507	30	2	54	6
2603	46	1	75	3
2535	46	0	53	3
15136	191	8	266	30

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	215	1212	111	1538
8-9	223	1010	114	1347
9-10	203	1023	129	1355
15-16	264	1097	135	1496
16-17	308	1056	150	1514
17-18	347	1221	133	1701
TOTAL	1560	6619	772	8951

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	119	885	91	1095
8-9	123	834	149	1106
9-10	149	737	128	1014
15-16	132	867	255	1254
16-17	167	979	206	1352
17-18	169	1007	202	1378
TOTAL	859	5309	1031	7199

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2633	18	6	34	5
2453	21	6	43	1
2369	26	1	24	1
2750	60	9	43	1
2866	58	2	55	5
3079	63	3	46	1
16150	246	27	245	14

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North/South Woodman Ave

East/West Sherman Way

Day: Wednesday Date: 12/12/2018 Weather: SUNNY

Hours: Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	230	351	541	418
BIKES	16	44	23	5
BUSES	16	18	54	50

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	273	8.00	548	7.30	445	7.45	321	8.00
PM PK 15 MIN	320	16.30	375	16.45	434	17.30	380	16.45
AM PK HOUR	1020	7.15	2013	7.00	1675	7.15	1230	7.30
PM PK HOUR	1285	15.45	1446	16.30	1739	17.00	1457	16.45

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	139	602	155	896
8-9	136	548	172	856
9-10	147	556	165	868
15-16	158	897	157	1212
16-17	142	973	153	1268
17-18	163	884	151	1198
TOTAL	885	4460	953	6298

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	263	1228	522	2013
8-9	230	1073	423	1726
9-10	244	944	291	1479
15-16	222	800	355	1377
16-17	201	839	372	1412
17-18	200	818	371	1389
TOTAL	1360	5702	2334	9396

TOTAL	**XING S/L**		**XING N/L**	
N-S	Ped	Sch	Ped	Sch
2909	15	4	26	10
2582	21	1	24	8
2347	33	0	34	0
2589	30	2	54	6
2680	46	1	75	3
2587	46	0	53	3
15694	191	8	266	30

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	225	1278	119	1622
8-9	232	1098	120	1450
9-10	214	1140	142	1496
15-16	286	1158	140	1584
16-17	330	1119	150	1599
17-18	353	1251	135	1739
TOTAL	1640	7044	806	9490

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	126	940	101	1167
8-9	133	927	155	1215
9-10	161	795	137	1093
15-16	138	917	261	1316
16-17	167	1021	215	1403
17-18	171	1045	207	1423
TOTAL	896	5645	1076	7617

TOTAL	**XING W/L**		**XING E/L**	
E-W	Ped	Sch	Ped	Sch
2789	18	6	34	5
2665	21	6	43	1
2589	26	1	24	1
2900	60	9	43	1
3002	58	2	55	5
3162	63	3	46	1
17107	246	27	245	14

APPENDIX C

LADOT CMA Worksheets

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Van Nuys Boulevard	Year of Count:	2018	Ambient Growth: (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
1	East-West Street:	Saticoy Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	Mid Valley Water Facility

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3				3	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 3 WB--		0	EB-- 3 WB--		0	EB-- 3 WB--		0		EB-- 3 WB--		0		EB-- 3 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	307	1	**307**	3	310	**310**	0	315	1	**315**	3	318	1	**318**		318	1	**318**
	Left-Through		0							0				0				0	
	Through	895	2	306	13	908	310	3	922	2	315	13	935	2	320		935	2	320
	Through-Right		1							1				1				1	
	Right	23	0	23	0	23	23	0	24	0	24	0	24	0	24		24	0	24
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	11	1	11	0	11	11	0	11	1	11	0	11	1	11		11	1	11
	Left-Through		0							0				0				0	
	Through	1153	2	**477**	54	1207	**495**	5	1189	2	**492**	54	1243	2	**510**		1243	2	**510**
	Through-Right		1							1				1				1	
	Right	278	0	278	0	278	278	0	286	0	286	0	286	0	286		286	0	286
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	482	1	**254**	0	482	**254**	0	495	1	**261**	0	495	1	**261**		495	1	**261**
	Left-Through		1							1				1				1	
	Through	25	0	254	0	25	254	0	26	0	261	0	26	0	261		26	0	261
	Through-Right		0							0				0				0	
	Right	481	1	174	14	495	185	0	494	1	179	14	508	1	190		508	1	190
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	79	1	79	0	79	79	0	81	1	81	0	81	1	81		81	1	81
	Left-Through		0							0				0				0	
	Through	51	0	**118**	0	51	**118**	0	52	0	**121**	0	52	0	**121**		52	0	**121**
	Through-Right		1							1				1				1	
	Right	67	0	0	0	67	0	0	69	0	0	0	69	0	0		69	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		784	*North-South:*		805	*North-South:*			807	*North-South:*			828	*North-South:*			828
		East-West:		372	*East-West:*		372	*East-West:*			382	*East-West:*			382	*East-West:*			382
		SUM:		1156	*SUM:*		1177	*SUM:*			1189	*SUM:*			1210	*SUM:*			1210
	VOLUME/CAPACITY *(V/C)* RATIO:			0.811			0.826				0.834				0.849				0.849
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.711			0.726				0.734				0.749				0.749
	LEVEL OF SERVICE (LOS):			C			C				C				C				C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.015	*Δv/c* after mitigation:	0.015
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Van Nuys Boulevard	Year of Count:	2018	Ambient Growth: (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
1	East-West Street:	Saticoy Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	Mid Valley Water Facility

No. of Phases				3				3				3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2				2
Override Capacity				0				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	269	1	**269**	15	284	**284**	0	276	1	**276**	15	291	1	**291**		291	1	**291**
	Left-Through		0							0				0				0	
	Through	1455	2	495	61	1516	516	6	1501	2	511	61	1562	2	531		1562	2	531
	Through-Right		1							1				1				1	
	Right	31	0	31	0	31	31	0	32	0	32	0	32	0	32		32	0	32
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	31	1	31	0	31	31	0	32	1	32	0	32	1	32		32	1	32
	Left-Through		0							0				0				0	
	Through	1098	2	**480**	11	1109	**484**	4	1132	2	**494**	11	1143	2	**498**		1143	2	**498**
	Through-Right		1							1				1				1	
	Right	342	0	342	0	342	342	0	351	0	351	0	351	0	351		351	0	351
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	556	1	**285**	0	556	**285**	0	571	1	**292**	0	571	1	**292**		571	1	**292**
	Left-Through		1							1				1				1	
	Through	13	0	285	0	13	285	0	13	0	292	0	13	0	292		13	0	292
	Through-Right		0							0				0				0	
	Right	320	1	51	3	323	39	0	329	1	53	3	332	1	41		332	1	41
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	31	1	31	0	31	31	0	32	1	32	0	32	1	32		32	1	32
	Left-Through		0							0				0				0	
	Through	114	0	**197**	0	114	**197**	0	117	0	**202**	0	117	0	**202**		117	0	**202**
	Through-Right		1							1				1				1	
	Right	83	0	0	0	83	0	0	85	0	0	0	85	0	0		85	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		749	*North-South:*		768	*North-South:*			770	*North-South:*			789	*North-South:*			789
		East-West:		482	*East-West:*		482	*East-West:*			494	*East-West:*			494	*East-West:*			494
		SUM:		1231	*SUM:*		1250	*SUM:*			1264	*SUM:*			1283	*SUM:*			1283
VOLUME/CAPACITY *(V/C)* RATIO:				0.864			0.877				0.887				0.900				0.900
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.764**			**0.777**				**0.787**				**0.800**				**0.800**
LEVEL OF SERVICE (LOS):				**C**			**C**				**C**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.013	Δ*v/c* after mitigation:	0.013
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Van Nuys Boulevard	Year of Count:	2018	Ambient Growth: (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
2	East-West Street:	Valerio Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	Mid Valley Water Facility

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	65	1	**65**	0	65	**65**	0	67	1	**67**	0	67	1	**67**		67	1	**67**
	Left-Through		0							0				0				0	
	Through	861	2	313	8	869	315	3	887	2	322	8	895	2	325		895	2	325
	Through-Right		1							1				1				1	
	Right	77	0	77	0	77	77	1	80	0	80	0	80	0	80		80	0	80
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	62	1	62	0	62	62	0	64	1	64	0	64	1	64		64	1	64
	Left-Through		0							0				0				0	
	Through	1264	2	**430**	2	1266	**431**	5	1303	2	**444**	2	1305	2	**444**		1305	2	**444**
	Through-Right		1							1				1				1	
	Right	27	0	27	0	27	27	0	28	0	28	0	28	0	28		28	0	28
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	57	0	**57**	0	57	**57**	0	59	0	**59**	0	59	0	**59**		59	0	**59**
	Left-Through		1							1				1				1	
	Through	214	0	271	0	214	271	0	220	0	279	0	220	0	279		220	0	279
	Through-Right		0							0				0				0	
	Right	77	1	45	0	77	45	0	79	1	46	0	79	1	46		79	1	46
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	109	1	109	0	109	109	4	116	1	116	0	116	1	116		116	1	116
	Left-Through		0							0				0				0	
	Through	247	0	**392**	0	247	**392**	0	254	0	**403**	0	254	0	**403**		254	0	**403**
	Through-Right		1							1				1				1	
	Right	145	0	0	0	145	0	0	149	0	0	0	149	0	0		149	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		495	*North-South:*		496	*North-South:*			511	*North-South:*			511	*North-South:*			511
		East-West:		449	*East-West:*		449	*East-West:*			462	*East-West:*			462	*East-West:*			462
		SUM:		944	*SUM:*		945	*SUM:*			973	*SUM:*			973	*SUM:*			973
VOLUME/CAPACITY *(V/C)* RATIO:				0.662			0.663				0.683				0.683				0.683
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.562**			**0.563**				**0.583**				**0.583**				**0.583**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	$\Delta v/c$ after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Van Nuys Boulevard	Year of Count:	2018	Ambient Growth: (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
2	East-West Street:	Valerio Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	Mid Valley Water Facility

No. of Phases			3			3			3			3			3			3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0 SB--	0	NB--	0 SB--	0	NB--	0 SB--	0	NB--	0 SB--	0	NB--	0 SB--	0	NB--	0 SB--	0	
	EB--	0 WB--	0	EB--	0 WB--	0	EB--	0 WB--	0	EB--	0 WB--	0	EB--	0 WB--	0	EB--	0 WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	65	1	65	0	65	65	0	67	1	67	0	67	1	67		67	1	67
	Left-Through		0							0				0				0	
	Through	1159	2	**431**	2	1161	**432**	5	1196	2	**446**	2	1198	2	**447**		1198	2	**447**
	Through-Right		1							1				1				1	
	Right	135	0	135	0	135	135	4	143	0	143	0	143	0	143		143	0	143
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	142	1	**142**	0	142	**142**	0	146	1	**146**	0	146	1	**146**		146	1	**146**
	Left-Through		0							0				0				0	
	Through	1182	2	412	9	1191	415	4	1218	2	425	9	1227	2	428		1227	2	428
	Through-Right		1							1				1				1	
	Right	55	0	55	0	55	55	0	57	0	57	0	57	0	57		57	0	57
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	45	0	**45**	0	45	**45**	0	46	0	**46**	0	46	0	**46**		46	0	**46**
	Left-Through		1							1				1				1	
	Through	210	0	255	0	210	255	0	216	0	262	0	216	0	262		216	0	262
	Through-Right		0							0				0				0	
	Right	46	1	14	0	46	14	0	47	1	14	0	47	1	14		47	1	14
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	89	1	89	0	89	89	3	94	1	94	0	94	1	94		94	1	94
	Left-Through		0							0				0				0	
	Through	258	0	**399**	0	258	**399**	0	265	0	**410**	0	265	0	**410**		265	0	**410**
	Through-Right		1							1				1				1	
	Right	141	0	0	0	141	0	0	145	0	0	0	145	0	0		145	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		573	*North-South:*		574	*North-South:*			592	*North-South:*			593	*North-South:*			593
		East-West:		444	*East-West:*		444	*East-West:*			456	*East-West:*			456	*East-West:*			456
		SUM:		1017	*SUM:*		1018	*SUM:*			1048	*SUM:*			1049	*SUM:*			1049
VOLUME/CAPACITY *(V/C)* RATIO:				0.714			0.714				0.735				0.736				0.736
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.614**			**0.614**				**0.635**				**0.636**				**0.636**
LEVEL OF SERVICE (LOS):				**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Tyrone Avenue	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
3	East-West Street:	Valerio Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	Mid Valley Water Facility

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			2			2			2				2				2	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	24	0	24	0	24	24	0	25	0	25	0	25	0	25		25	0	25
	Left-Through		0							0				0				0	
	Through	32	0	**72**	15	47	**87**	0	33	0	**74**	15	48	0	**89**		48	0	**89**
	Through-Right		0							0				0				0	
	Right	16	0	0	0	16	0	0	16	0	0	0	16	0	0		16	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	3	0	**3**	1	4	**4**	0	3	0	**3**	1	4	0	**4**		4	0	**4**
	Left-Through		0							0				0				0	
	Through	24	0	43	4	28	48	0	25	0	44	4	29	0	49		29	0	49
	Through-Right		0							0				0				0	
	Right	16	0	0	0	16	0	0	16	0	0	0	16	0	0		16	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	28	0	**28**	0	28	**28**	0	29	0	**29**	0	29	0	**29**		29	0	**29**
	Left-Through		0							0				0				0	
	Through	308	0	412	0	308	412	0	316	0	423	0	316	0	423		316	0	423
	Through-Right		0							0				0				0	
	Right	76	0	0	0	76	0	0	78	0	0	0	78	0	0		78	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	40	0	40	0	40	40	0	41	0	41	0	41	0	41		41	0	41
	Left-Through		0							0				0				0	
	Through	387	0	**434**	0	387	**439**	0	398	0	**446**	0	398	0	**451**		398	0	**451**
	Through-Right		0							0				0				0	
	Right	7	0	0	5	12	0	0	7	0	0	5	12	0	0		12	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES		*North-South:*	75		*North-South:*	91		*North-South:*	77			*North-South:*	93			*North-South:*	93	
			East-West:	462		*East-West:*	467		*East-West:*	475			*East-West:*	480			*East-West:*	480	
			SUM:	537		*SUM:*	558		*SUM:*	552			*SUM:*	573			*SUM:*	573	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.358			0.372			0.368				0.382				0.382	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.258			0.272			0.268				0.282				0.282	
	LEVEL OF SERVICE (LOS):			A			A			A				A				A	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.014	Δ*v/c* after mitigation:	0.014
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Tyrone Avenue	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
3	East-West Street:	Valerio Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	Mid Valley Water Facility

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
No. of Phases			2			2				2				2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--			0	NB-- 0 SB--			0	NB-- 0 SB--			0
	EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--			0	EB-- 0 WB--			0	EB-- 0 WB--			0
ATSAC-1 or ATSAC+ATCS-2?			2			2				2				2				2
Override Capacity			0			0				0				0				0
NORTHBOUND																		
Left	25	0	25	0	25	25	0	26	0	26	0	26	0	26		26	0	26
Left-Through		0							0				0				0	
Through	38	0	**87**	3	41	**90**	0	39	0	**90**	3	42	0	**93**		42	0	**93**
Through-Right		0							0				0				0	
Right	24	0	0	0	24	0	0	25	0	0	0	25	0	0		25	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	7	0	**7**	6	13	**13**	0	7	0	**7**	6	13	0	**13**		13	0	**13**
Left-Through		0							0				0				0	
Through	19	0	43	18	37	67	0	20	0	44	18	38	0	68		38	0	68
Through-Right		0							0				0				0	
Right	17	0	0	0	17	0	0	17	0	0	0	17	0	0		17	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	21	0	**21**	0	21	**21**	0	22	0	**22**	0	22	0	**22**		22	0	**22**
Left-Through		0							0				0				0	
Through	369	0	427	0	369	427	0	379	0	439	0	379	0	439		379	0	439
Through-Right		0							0				0				0	
Right	37	0	0	0	37	0	0	38	0	0	0	38	0	0		38	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	22	0	22	0	22	22	0	23	0	23	0	23	0	23		23	0	23
Left-Through		0							0				0				0	
Through	409	0	**444**	0	409	**445**	0	420	0	**456**	0	420	0	**457**		420	0	**457**
Through-Right		0							0				0				0	
Right	13	0	0	1	14	0	0	13	0	0	1	14	0	0		14	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		94	*North-South:*		103	*North-South:*			97	*North-South:*			106	*North-South:*			106
	East-West:		465	*East-West:*		466	*East-West:*			478	*East-West:*			479	*East-West:*			479
	SUM:		559	*SUM:*		569	*SUM:*			575	*SUM:*			585	*SUM:*			585
VOLUME/CAPACITY *(V/C)* RATIO:			0.373			0.379				0.383				0.390				0.390
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.273			0.279				0.283				0.290				0.290
LEVEL OF SERVICE (LOS):			A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.007	Δ*v/c* after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hazeltine Avenue	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
4	East-West Street:	Valerio Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	Mid Valley Water Facility

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2			2				2				2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	86	0	86	0	86	86	0	88	0	88	0	88	0	88		88	0	88
	Left-Through		1							1				1				1	
	Through	256	0	**342**	43	299	**385**	0	263	0	**351**	43	306	0	**394**		306	0	**394**
	Through-Right		0							0				0				0	
	Right	82	1	82	0	82	82	0	84	1	84	0	84	1	84		84	1	84
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	90	0	**90**	7	97	**97**	0	92	0	**92**	7	99	0	**99**		99	0	**99**
	Left-Through		0							0				0				0	
	Through	229	0	324	10	239	341	0	235	0	332	10	245	0	349		245	0	349
	Through-Right		0							0				0				0	
	Right	5	0	0	0	5	0	0	5	0	0	0	5	0	0		5	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	3	0	**3**	0	3	**3**	0	3	0	**3**	0	3	0	**3**		3	0	**3**
	Left-Through		0							0				0				0	
	Through	232	0	343	1	233	344	0	238	0	352	1	239	0	353		239	0	353
	Through-Right		0							0				0				0	
	Right	108	0	0	0	108	0	0	111	0	0	0	111	0	0		111	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	82	0	82	0	82	82	0	84	0	84	0	84	0	84		84	0	84
	Left-Through		0							0				0				0	
	Through	345	0	**604**	5	350	**640**	0	354	0	**620**	5	359	0	**656**		359	0	**656**
	Through-Right		0							0				0				0	
	Right	177	0	0	31	208	0	0	182	0	0	31	213	0	0		213	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	432		*North-South:*	482		*North-South:*		443		*North-South:*		493		*North-South:*		493
			East-West:	607		*East-West:*	643		*East-West:*		623		*East-West:*		659		*East-West:*		659
			SUM:	1039		*SUM:*	1125		*SUM:*		1066		*SUM:*		1152		*SUM:*		1152
VOLUME/CAPACITY *(V/C)* RATIO:				0.693			0.750				0.711				0.768				0.768
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.593**			**0.650**				**0.611**				**0.668**				**0.668**
LEVEL OF SERVICE (LOS):				**A**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.057	Δ*v/c* after mitigation:	0.057
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hazeltine Avenue	Year of Count:	2018	Ambient Growth: (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
4	East-West Street:	Valerio Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	Mid Valley Water Facility

No. of Phases			2				2				2				2				2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?			2				2				2				2				2				2
Override Capacity			0				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	106	0	106	0	106	**106**	0	109	0	109	0	109	0	**109**		109	0	**109**
	Left-Through		1							1				1				1	
	Through	245	0	**351**	8	253	359	0	252	0	**361**	8	260	0	369		260	0	369
	Through-Right		0							0				0				0	
	Right	128	1	128	0	128	128	0	131	1	131	0	131	1	131		131	1	131
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	122	0	**122**	36	158	158	0	125	0	**125**	36	161	0	161		161	0	161
	Left-Through		0							0				0				0	
	Through	200	0	330	49	249	**415**	0	205	0	338	49	254	0	**423**		254	0	**423**
	Through-Right		0							0				0				0	
	Right	8	0	0	0	8	0	0	8	0	0	0	8	0	0		8	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	2	0	**2**	0	2	**2**	0	2	0	**2**	0	2	0	**2**		2	0	**2**
	Left-Through		0							0				0				0	
	Through	287	0	398	6	293	404	0	295	0	409	6	301	0	415		301	0	415
	Through-Right		0							0				0				0	
	Right	109	0	0	0	109	0	0	112	0	0	0	112	0	0		112	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	55	0	55	0	55	55	0	57	0	57	0	57	0	57		57	0	57
	Left-Through		0							0				0				0	
	Through	340	0	**497**	1	341	**504**	0	349	0	**511**	1	350	0	**518**		350	0	**518**
	Through-Right		0							0				0				0	
	Right	102	0	0	6	108	0	0	105	0	0	6	111	0	0		111	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		473	North-South:		521	North-South:			486	North-South:			532	North-South:			532
		East-West:		499	East-West:		506	East-West:			513	East-West:			520	East-West:			520
		SUM:		972	SUM:		1027	SUM:			999	SUM:			1052	SUM:			1052
VOLUME/CAPACITY (V/C) RATIO:				0.648			0.685				0.666				0.701				0.701
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.548**			**0.585**				**0.566**				**0.601**				**0.601**
LEVEL OF SERVICE (LOS):				A			A				A				B				B

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.035	Δ*v/c* after mitigation:	0.035
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Woodman Avenue	Year of Count:	2018	Ambient Growth: (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
5	East-West Street:	Valerio Street	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	Mid Valley Water Facility

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2			2				2				2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	59	1	**59**	5	64	**64**	0	61	1	**61**	5	66	1	**66**		66	1	**66**
	Left-Through		0							0				0				0	
	Through	1048	2	353	0	1048	353	0	1077	2	363	0	1077	2	363		1077	2	363
	Through-Right		1							1				1				1	
	Right	11	0	11	0	11	11	0	11	0	11	0	11	0	11		11	0	11
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	28	1	28	0	28	28	0	29	1	29	0	29	1	29		29	1	29
	Left-Through		0							0				0				0	
	Through	1955	2	**825**	1	1956	**835**	0	2008	2	**847**	1	2009	2	**858**		2009	2	**858**
	Through-Right		1							1				1				1	
	Right	519	0	519	31	550	550	0	533	0	533	31	564	0	564		564	0	564
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	337	0	337	7	344	344	0	346	0	346	7	353	0	353		353	0	353
	Left-Through		0							0				0				0	
	Through	22	0	**442**	0	22	**450**	0	23	0	**454**	0	23	0	**462**		23	0	**462**
	Through-Right		0							0				0				0	
	Right	83	0	0	1	84	0	0	85	0	0	1	86	0	0		86	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	37	0	**37**	0	37	**37**	0	38	0	**38**	0	38	0	**38**		38	0	**38**
	Left-Through		1							1				1				1	
	Through	31	0	68	0	31	68	0	32	0	70	0	32	0	70		32	0	70
	Through-Right		0							0				0				0	
	Right	57	1	43	0	57	43	0	59	1	45	0	59	1	45		59	1	45
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES		*North-South:*	884		*North-South:*	899		*North-South:*		908		*North-South:*		924		*North-South:*		924
			East-West:	479		*East-West:*	487		*East-West:*		492		*East-West:*		500		*East-West:*		500
			SUM:	1363		*SUM:*	1386		*SUM:*		1400		*SUM:*		1424		*SUM:*		1424
	VOLUME/CAPACITY *(V/C)* RATIO:			0.909			0.924				0.933				0.949				0.949
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.809**			**0.824**				**0.833**				**0.849**				**0.849**
	LEVEL OF SERVICE (LOS):			**D**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.016	*Δv/c* after mitigation:	0.016
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Woodman Avenue	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
5	East-West Street:	Valerio Street	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	Mid Valley Water Facility

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	56	1	**56**	1	57	**57**	0	58	1	**58**	1	59	1	**59**		59	1	**59**
Left-Through		0							0				0				0	
Through	1406	2	479	1	1407	479	0	1444	2	492	1	1445	2	492		1445	2	492
Through-Right		1							1				1				1	
Right	31	0	31	0	31	31	0	32	0	32	0	32	0	32		32	0	32
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	29	1	29	0	29	29	0	30	1	30	0	30	1	30		30	1	30
Left-Through		0							0				0				0	
Through	1348	2	**575**	0	1348	**577**	0	1385	2	**591**	0	1385	2	**593**		1385	2	**593**
Through-Right		1							1				1				1	
Right	378	0	378	6	384	384	0	388	0	388	6	394	0	394		394	0	394
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	362	0	362	36	398	398	0	372	0	372	36	408	0	408		408	0	408
Left-Through		0							0				0				0	
Through	23	0	**440**	0	23	**482**	0	24	0	**453**	0	24	0	**495**		24	0	**495**
Through-Right		0							0				0				0	
Right	55	0	0	6	61	0	0	57	0	0	6	63	0	0		63	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	26	0	**26**	0	26	**26**	0	27	0	**27**	0	27	0	**27**		27	0	**27**
Left-Through		1							1				1				1	
Through	51	0	77	0	51	77	0	52	0	79	0	52	0	79		52	0	79
Through-Right		0							0				0				0	
Right	100	1	86	0	100	86	0	103	1	88	0	103	1	88		103	1	88
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		631	*North-South:*		634	*North-South:*			649	*North-South:*			652	*North-South:*			652
	East-West:		466	*East-West:*		508	*East-West:*			480	*East-West:*			522	*East-West:*			522
	SUM:		1097	*SUM:*		1142	*SUM:*			1129	*SUM:*			1174	*SUM:*			1174
VOLUME/CAPACITY *(V/C)* RATIO:			0.731			0.761				0.753				0.783				0.783
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.631			0.661				0.653				0.683				0.683
LEVEL OF SERVICE (LOS):			B			B				B				B				B

	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--
No. of Phases				2				2				2				2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.030	$\Delta v/c$ after mitigation:	0.030
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Van Nuys Boulevard	Year of Count:	2018	Ambient Growth: (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
6	East-West Street:	Sherman Way	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	Mid Valley Water Facility

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			4			4			4				4				4	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	189	2	**104**	0	189	**104**	18	212	2	**117**	0	212	2	**117**		212	2	**117**
	Left-Through		0							0				0				0	
	Through	714	2	276	8	722	278	2	735	2	284	8	743	2	286		743	2	286
	Through-Right		1							1				1				1	
	Right	113	0	113	0	113	113	0	116	0	116	0	116	0	116		116	0	116
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	246	2	135	0	246	135	1	254	2	140	0	254	2	140		254	2	140
	Left-Through		0							0				0				0	
	Through	1132	2	**420**	2	1134	**421**	4	1167	2	**434**	2	1169	2	**435**		1169	2	**435**
	Through-Right		1							1				1				1	
	Right	129	0	129	0	129	129	3	136	0	136	0	136	0	136		136	0	136
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	179	2	98	0	179	98	1	185	2	102	0	185	2	102		185	2	102
	Left-Through		0							0				0				0	
	Through	1135	2	**411**	21	1156	**418**	21	1187	2	**435**	21	1208	2	**442**		1208	2	**442**
	Through-Right		1							1				1				1	
	Right	99	0	99	0	99	99	16	118	0	118	0	118	0	118		118	0	118
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	200	2	**110**	0	200	**110**	0	205	2	**113**	0	205	2	**113**		205	2	**113**
	Left-Through		0							0				0				0	
	Through	1066	2	409	5	1071	411	25	1120	2	428	5	1125	2	430		1125	2	430
	Through-Right		1							1				1				1	
	Right	161	0	161	0	161	161	0	165	0	165	0	165	0	165		165	0	165
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		524	*North-South:*		525	*North-South:*			551	*North-South:*			552		*North-South:*		552
		East-West:		521	*East-West:*		528	*East-West:*			548	*East-West:*			555		*East-West:*		555
		SUM:		1045	*SUM:*		1053	*SUM:*			1099	*SUM:*			1107		*SUM:*		1107
	VOLUME/CAPACITY *(V/C)* RATIO:			0.760			0.766				0.799				0.805				0.805
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.660**			**0.666**				**0.699**				**0.705**				**0.705**
	LEVEL OF SERVICE (LOS):			**B**			**B**				**B**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	$\Delta v/c$ after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Van Nuys Boulevard	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
6	East-West Street:	Sherman Way	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	Mid Valley Water Facility

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	235	2	129	0	235	129	26	267	2	147	0	267	2	147		267	2	147
	Left-Through		0							0				0				0	
	Through	1063	2	**408**	2	1065	**409**	4	1096	2	**421**	2	1098	2	**421**		1098	2	**421**
	Through-Right		1							1				1				1	
	Right	162	0	162	0	162	162	0	166	0	166	0	166	0	166		166	0	166
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	403	2	**222**	0	403	**222**	1	415	2	**228**	0	415	2	**228**		415	2	**228**
	Left-Through		0							0				0				0	
	Through	885	2	352	9	894	355	4	913	2	364	9	922	2	367		922	2	367
	Through-Right		1							1				1				1	
	Right	171	0	171	0	171	171	2	178	0	178	0	178	0	178		178	0	178
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	235	2	**129**	0	235	**129**	3	244	2	**134**	0	244	2	**134**		244	2	**134**
	Left-Through		0							0				0				0	
	Through	1178	2	418	4	1182	420	34	1244	2	450	4	1248	2	451		1248	2	451
	Through-Right		1							1				1				1	
	Right	77	0	77	0	77	77	26	105	0	105	0	105	0	105		105	0	105
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	160	2	88	0	160	88	0	164	2	90	0	164	2	90		164	2	90
	Left-Through		0							0				0				0	
	Through	1085	2	**428**	24	1109	**436**	34	1149	2	**451**	24	1173	2	**459**		1173	2	**459**
	Through-Right		1							1				1				1	
	Right	199	0	199	0	199	199	1	205	0	205	0	205	0	205		205	0	205
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		630	North-South:		631	North-South:			649	North-South:			649	North-South:			649
		East-West:		557	East-West:		565	East-West:			585	East-West:			593	East-West:			593
		SUM:		1187	SUM:		1196	SUM:			1234	SUM:			1242	SUM:			1242
VOLUME/CAPACITY (V/C) RATIO:				0.863			0.870				0.897				0.903				0.903
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.763			0.770				0.797				0.803				0.803
LEVEL OF SERVICE (LOS):				C			C				C				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	Δ*v/c* after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Tyrone Avenue	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
7	East-West Street:	Sherman Way	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	Mid Valley Water Facility

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2			2				2				2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	118	0	**118**	0	118	**118**	1	122	0	**122**	0	122	0	**122**		122	0	**122**
	Left-Through		0							0				0				0	
	Through	39	0	207	0	39	207	0	40	0	213	0	40	0	213		40	0	213
	Through-Right		0							0				0				0	
	Right	50	0	0	0	50	0	0	51	0	0	0	51	0	0		51	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	40	0	40	0	40	40	0	41	0	41	0	41	0	41		41	0	41
	Left-Through		0							0				0				0	
	Through	80	0	**164**	0	80	**168**	0	82	0	**168**	0	82	0	**172**		82	0	**172**
	Through-Right		0							0				0				0	
	Right	44	0	0	4	48	0	0	45	0	0	4	49	0	0		49	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
EASTBOUND	Left	10	1	10	15	25	25	0	10	1	10	15	25	1	25		25	1	25
	Left-Through		0							0				0				0	
	Through	1470	2	**515**	6	1476	**517**	7	1517	2	**532**	6	1523	2	**534**		1523	2	**534**
	Through-Right		1							1				1				1	
	Right	75	0	75	0	75	75	1	78	0	78	0	78	0	78		78	0	78
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	49	1	**49**	0	49	**49**	0	50	1	**50**	0	50	1	**50**		50	1	**50**
	Left-Through		0							0				0				0	
	Through	1373	2	465	1	1374	465	7	1417	2	480	1	1418	2	480		1418	2	480
	Through-Right		1							1				1				1	
	Right	21	0	21	0	21	21	0	22	0	22	0	22	0	22		22	0	22
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		282	North-South:		286	North-South:			290	North-South:			294	North-South:			294
		East-West:		564	East-West:		566	East-West:			582	East-West:			584	East-West:			584
		SUM:		846	SUM:		852	SUM:			872	SUM:			878	SUM:			878
VOLUME/CAPACITY (V/C) RATIO:				0.564			0.568				0.581				0.585				0.585
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.464			0.468				0.481				0.485				0.485
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Tyrone Avenue	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
7	East-West Street:	Sherman Way	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	Mid Valley Water Facility

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND																		
Left	59	0	59	0	59	59	1	62	0	62	0	62	0	62		62	0	62
Left-Through		0							0				0				0	
Through	63	0	**184**	0	63	**184**	0	65	0	**191**	0	65	0	**191**		65	0	**191**
Through-Right		0							0				0				0	
Right	62	0	0	0	62	0	0	64	0	0	0	64	0	0		64	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	25	0	**25**	0	25	**25**	0	26	0	**26**	0	26	0	**26**		26	0	**26**
Left-Through		0							0				0				0	
Through	32	0	78	0	32	96	0	33	0	81	0	33	0	99		33	0	99
Through-Right		0							0				0				0	
Right	21	0	0	18	39	0	0	22	0	0	18	40	0	0		40	0	0
Left-Through-Right		1							1				1				1	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	19	1	19	3	22	22	0	20	1	20	3	23	1	23		23	1	23
Left-Through		0							0				0				0	
Through	1597	2	**561**	1	1598	**562**	9	1650	2	**580**	1	1651	2	**580**		1651	2	**580**
Through-Right		1							1				1				1	
Right	87	0	87	0	87	87	1	90	0	90	0	90	0	90		90	0	90
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	39	1	**39**	0	39	**39**	0	40	1	**40**	0	40	1	**40**		40	1	**40**
Left-Through		0							0				0				0	
Through	1499	2	506	7	1506	508	9	1549	2	522	7	1556	2	525		1556	2	525
Through-Right		1							1				1				1	
Right	18	0	18	0	18	18	0	18	0	18	0	18	0	18		18	0	18
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		209	*North-South:*		209	*North-South:*			217	*North-South:*			217	*North-South:*			217
	East-West:		600	*East-West:*		601	*East-West:*			620	*East-West:*			620	*East-West:*			620
	SUM:		809	*SUM:*		810	*SUM:*			837	*SUM:*			837	*SUM:*			837
VOLUME/CAPACITY *(V/C)* RATIO:			0.539			0.540				0.558				0.558				0.558
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.439			0.440				0.458				0.458				0.458
LEVEL OF SERVICE (LOS):			A			A				A				A				A

	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--	NB--	SB--	EB--	WB--
No. of Phases				2				2				2				2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	*Δv/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hazeltine Avenue	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
8	East-West Street:	Sherman Way	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	Mid Valley Water Facility

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3 SB--		3	NB-- 3 SB--		3	NB-- 3 SB--		3		NB-- 3 SB--		3		NB-- 3 SB--		3	
	EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	
NORTHBOUND Left	104	1	**104**	0	104	**104**	0	107	1	**107**	0	107	1	**107**		107	1	**107**
NORTHBOUND Left-Through		0							0				0				0	
NORTHBOUND Through	257	1	257	8	265	265	0	264	1	264	8	272	1	272		272	1	272
NORTHBOUND Through-Right		0							0				0				0	
NORTHBOUND Right	173	1	0	0	173	0	0	178	1	0	0	178	1	0		178	1	0
NORTHBOUND Left-Through-Right		0							0				0				0	
NORTHBOUND Left-Right		0							0				0				0	
SOUTHBOUND Left	115	1	115	7	122	122	0	118	1	118	7	125	1	125		125	1	125
SOUTHBOUND Left-Through		0							0				0				0	
SOUTHBOUND Through	342	1	**342**	2	344	**344**	0	351	1	**351**	2	353	1	**353**		353	1	**353**
SOUTHBOUND Through-Right		0							0				0				0	
SOUTHBOUND Right	36	1	0	1	37	0	0	37	1	0	1	38	1	0		38	1	0
SOUTHBOUND Left-Through-Right		0							0				0				0	
SOUTHBOUND Left-Right		0							0				0				0	
EASTBOUND Left	39	1	39	6	45	45	0	40	1	40	6	46	1	46		46	1	46
EASTBOUND Left-Through		0							0				0				0	
EASTBOUND Through	1372	2	**504**	0	1372	**504**	7	1416	2	**520**	0	1416	2	**520**		1416	2	**520**
EASTBOUND Through-Right		1							1				1				1	
EASTBOUND Right	140	0	140	0	140	140	0	144	0	144	0	144	0	144		144	0	144
EASTBOUND Left-Through-Right		0							0				0				0	
EASTBOUND Left-Right		0							0				0				0	
WESTBOUND Left	281	1	**281**	0	281	**281**	0	289	1	**289**	0	289	1	**289**		289	1	**289**
WESTBOUND Left-Through		0							0				0				0	
WESTBOUND Through	1273	2	470	0	1273	480	7	1315	2	486	0	1315	2	495		1315	2	495
WESTBOUND Through-Right		1							1				1				1	
WESTBOUND Right	138	0	138	29	167	167	0	142	0	142	29	171	0	171		171	0	171
WESTBOUND Left-Through-Right		0							0				0				0	
WESTBOUND Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		446	*North-South:*		448	*North-South:*			458	*North-South:*			460	*North-South:*			460
	East-West:		785	*East-West:*		785	*East-West:*			809	*East-West:*			809	*East-West:*			809
	SUM:		1231	*SUM:*		1233	*SUM:*			1267	*SUM:*			1269	*SUM:*			1269
VOLUME/CAPACITY *(V/C)* RATIO:			0.864			0.865				0.889				0.891				0.891
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.764			0.765				0.789				0.791				0.791
LEVEL OF SERVICE (LOS):			C			C				C				C				C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Hazeltine Avenue	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
8	East-West Street:	Sherman Way	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	Mid Valley Water Facility

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 3 SB--		3	NB-- 3 SB--		3	NB-- 3 SB--		3		NB-- 3 SB--		3		NB-- 3 SB--		3	
	EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	
NORTHBOUND																		
Left	196	1	196	0	196	196	0	201	1	201	0	201	1	201		201	1	201
Left-Through		0							0				0				0	
Through	362	1	**362**	2	364	**364**	0	372	1	**372**	2	374	1	**374**		374	1	**374**
Through-Right		0							0				0				0	
Right	224	1	95	0	224	95	0	230	1	97	0	230	1	97		230	1	97
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	110	1	**110**	34	144	**144**	0	113	1	**113**	34	147	1	**147**		147	1	**147**
Left-Through		0							0				0				0	
Through	263	1	263	9	272	272	0	270	1	270	9	279	1	279		279	1	279
Through-Right		0							0				0				0	
Right	44	1	0	7	51	0	0	45	1	0	7	52	1	0		52	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	51	1	51	1	52	52	0	52	1	52	1	53	1	53		53	1	53
Left-Through		0							0				0				0	
Through	1524	2	**549**	0	1524	**549**	9	1575	2	**567**	0	1575	2	**567**		1575	2	**567**
Through-Right		1							1				1				1	
Right	123	0	123	0	123	123	0	126	0	126	0	126	0	126		126	0	126
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	129	1	**129**	0	129	**129**	0	133	1	**133**	0	133	1	**133**		133	1	**133**
Left-Through		0							0				0				0	
Through	1352	2	489	0	1352	491	9	1398	2	506	0	1398	2	508		1398	2	508
Through-Right		1							1				1				1	
Right	116	0	116	6	122	122	0	119	0	119	6	125	0	125		125	0	125
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	North-South:		472	North-South:		508	North-South:			485	North-South:			521	North-South:			521
	East-West:		678	East-West:		678	East-West:			700	East-West:			700	East-West:			700
	SUM:		1150	SUM:		1186	SUM:			1185	SUM:			1221	SUM:			1221
VOLUME/CAPACITY (V/C) RATIO:			0.807			0.832				0.832				0.857				0.857
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.707			0.732				0.732				0.757				0.757
LEVEL OF SERVICE (LOS):			C			C				C				C				C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.025	Δ*v/c* after mitigation:	0.025
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Woodman Avenue	Year of Count:	2018	Ambient Growth: (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
9	East-West Street:	Sherman Way	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	Mid Valley Water Facility

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			4			4				4				4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	3	NB-- 0	SB--	3	NB-- 0	SB--		3	NB-- 0	SB--		3	NB-- 0	SB--		3
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--		0	EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?			2			2				2				2				2
Override Capacity			0			0				0				0				0

MOVEMENT		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	160	1	**160**	2	162	**162**	0	164	1	**164**	2	166	1	**166**		166	1	**166**
	Left-Through		0							0				0				0	
	Through	672	2	285	5	677	287	0	690	2	293	5	695	2	295		695	2	295
	Through-Right		1							1				1				1	
	Right	184	0	184	0	184	184	0	189	0	189	0	189	0	189		189	0	189
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	271	1	271	0	271	271	0	278	1	278	0	278	1	278		278	1	278
	Left-Through		0							0				0				0	
	Through	1203	2	**602**	1	1204	**602**	0	1236	2	**618**	1	1237	2	**619**		1237	2	**619**
	Through-Right		0							0				0				0	
	Right	542	1	297	1	543	298	0	557	1	305	1	558	1	306		558	1	306
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	245	1	**245**	0	245	**245**	0	252	1	**252**	0	252	1	**252**		252	1	**252**
	Left-Through		0							0				0				0	
	Through	1310	3	437	6	1316	439	7	1353	3	451	6	1359	3	453		1359	3	453
	Through-Right		0							0				0				0	
	Right	111	1	31	1	112	31	0	114	1	32	1	115	1	32		115	1	32
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	121	1	121	0	121	121	0	124	1	124	0	124	1	124		124	1	124
	Left-Through		0							0				0				0	
	Through	943	2	**357**	26	969	**366**	7	976	2	**369**	26	1002	2	**378**		1002	2	**378**
	Through-Right		1							1				1				1	
	Right	128	0	128	0	128	128	0	131	0	131	0	131	0	131		131	0	131
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	762		*North-South:*	764		*North-South:*		782		*North-South:*		785		*North-South:*		785
			East-West:	602		*East-West:*	611		*East-West:*		621		*East-West:*		630		*East-West:*		630
			SUM:	1364		*SUM:*	1375		*SUM:*		1403		*SUM:*		1415		*SUM:*		1415
VOLUME/CAPACITY *(V/C)* RATIO:				0.992			1.000				1.020				1.029				1.029
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.892**			**0.900**				**0.920**				**0.929**				**0.929**
LEVEL OF SERVICE (LOS):				**D**			**D**				**E**				**E**				**E**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.009	$\Delta v/c$ after mitigation:	0.009
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Woodman Avenue	Year of Count:	2018	Ambient Growth (%):	0.54	Conducted by:	Dudek	Date:	12/12/2018
9	East-West Street:	Sherman Way	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	Mid Valley Water Facility

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	NB--	0	SB-- 3	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	142	1	142	0	142	**142**	0	146	1	146	0	146	1	**146**		146	1	**146**
	Left-Through		0							0				0				0	
	Through	922	2	**357**	1	923	358	0	947	2	**367**	1	948	2	367		948	2	367
	Through-Right		1							1				1				1	
	Right	150	0	150	0	150	150	0	154	0	154	0	154	0	154		154	0	154
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	199	1	**199**	0	199	199	0	204	1	**204**	0	204	1	204		204	1	204
	Left-Through		0							0				0				0	
	Through	825	2	413	6	831	**416**	0	848	2	424	6	854	2	**427**		854	2	**427**
	Through-Right		0							0				0				0	
	Right	396	1	69	0	396	68	0	407	1	71	0	407	1	70		407	1	70
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	327	1	**327**	1	328	**328**	0	336	1	**336**	1	337	1	**337**		337	1	**337**
	Left-Through		0							0				0				0	
	Through	1233	3	411	30	1263	421	9	1276	3	425	30	1306	3	435		1306	3	435
	Through-Right		0							0				0				0	
	Right	141	1	70	3	144	73	0	145	1	72	3	148	1	75		148	1	75
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	182	1	182	0	182	182	0	187	1	187	0	187	1	187		187	1	187
	Left-Through		0							0				0				0	
	Through	1065	2	**422**	5	1070	**424**	9	1103	2	**437**	5	1108	2	**439**		1108	2	**439**
	Through-Right		1							1				1				1	
	Right	202	0	202	0	202	202	0	208	0	208	0	208	0	208		208	0	208
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		556	North-South:		558	North-South:			571	North-South:			573	North-South:			573
		East-West:		749	East-West:		752	East-West:			773	East-West:			776	East-West:			776
		SUM:		1305	SUM:		1310	SUM:			1344	SUM:			1349	SUM:			1349
VOLUME/CAPACITY (V/C) RATIO:				0.949			0.953				0.977				0.981				0.981
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.849**			**0.853**				**0.877**				**0.881**				**0.881**
LEVEL OF SERVICE (LOS):				**D**			**D**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

7600 N. Tyrone Avenue
DOT Case No. SFV 18-47782

Date: May 30, 2019

To: Michelle Levy, Senior City Planner
Department of City Planning

From: Vicente Cordero, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION IMPACT ASSESSMENT FOR THE PROPOSED MID VALLEY WATER FACILITY PROJECT LOCATED AT 7600 NORTH TYRONE AVENUE**

The Department of Transportation (DOT) has reviewed the traffic impact analysis, dated March 2019, prepared by Dudek, for the proposed Mid Valley Water Facility project located at 7600 Tyrone Avenue, in the City of Los Angeles. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to established threshold standards to assess the project-related traffic impacts. Based on DOT's traffic impact criteria[1], the traffic study included the detailed analysis of nine signalized intersections and determined that the project-related traffic would not significantly impact any of the studied intersections as summarized in **Attachments 2a and 2b**.

DISCUSSION AND FINDINGS

A. Project Description

The proposed Mid Valley Water Facility site is located at 7600 North Tyrone Avenue in the Van Nuys area of the City of Los Angeles, adjacent to the existing LADWP Valley Center site occupied by the Power System. The project site is approximately 17.3 acres of empty property already owned by LADWP. Access to the site would be provided from both Tyrone Avenue on the southwest and Hazeltine Avenue on the southeast. The project is expected to be completed by year 2023.

[1] Per the DOT Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

B. Trip Generation
The project is estimated to generate a net increase of approximately 1,453 daily trips, 210 trips during the a.m. peak hour and 229 trips during the p.m. peak hour. The trip generation estimates are based on rates published by the Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition, 2017. A copy of the trip generation table can be found in **Attachment 1**.

C. Traffic Impacts
The study estimates that the project would not result in significant traffic impacts at any of the nine studied intersections.

PROJECT REQUIREMENTS

A. Construction Impacts
DOT recommends that a construction work site traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to http://ladot.lacity.org/what-we-do/plan-review to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours to the extent feasible.

B. Highway Dedication and Street Widening Requirements
On January 20, 2016 the City Council adopted the Mobility Plan 2035 which represents the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the new Mobility Element, **Tyrone Avenue and Hazeltine Avenue** have been designated as Collector Streets which would require a 20-foot half-width roadway within a 33-foot half-width right-of-way. The applicant should check with Bureau of Engineering's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project.

C. Parking Requirements
The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

D. Driveway Access and Circulation
Access to the site would be provided from both Tyrone Avenue on the southwest and Hazeltine Avenue on the southeast of the property. However, the review of this study does not constitute approval of the driveway dimensions, access and circulation scheme. Those require separate review and approval and should be coordinated with DOT's Valley Development Review (6262 Van Nuys Blvd. Suite 320, Van Nuys 91401, @ 818-374-4699). In order to minimize and prevent last minute building design changes, the applicant should contact DOT, prior to the commencement of building or parking layout design efforts, for driveway width and internal circulation requirements. New driveways should be Case 2 -

designed with a recommended width of 30 feet for two-way operations or 16 feet for one-way operations. Delivery truck loading and unloading should take place on site with no vehicles having to back into the project via the proposed project driveways.

E. Development Review Fees
An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009 and updated in 2014. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Durre Shamsi at (818) 374-4694.

c: Dough Mensman, Council District 2
Steve Rostam, DOT East Valley District Office
Fabio Arias, DOT B-Permit Coordinator
Ali Nahass, BOE Valley District
Quyen Phen, BOE Land Development Group
Dennis Pascua, Dudek

Attachment 1
Project Trip Generation Estimates

Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Proposed:								
Mid Valley Water Facility	416 Employee	1,710	236	55	291	47	269	316
Transit Reduction (15%)		-256	-35	-8	-44	-7	-40	-47
Off-Peak Employee Trip Reduction (15%)		0	-30	-7	-37	-6	-34	-40
Net Primary trips		1,453	170	40	210	34	194	229

Attachment 2a
Volume to Capacity Ratios (v/c) and Levels of Service (LOS)
Existing + Project

No.	Intersection	LOS Method	Existing				Existing plus Project				Change in V/C		Significant Impact?	
			AM Peak		PM Peak		AM Peak		PM Peak					
			Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	AM	PM	AM	PM
1	Van Nuys Boulevard/Saticoy Street	CMA	0.711	C	0.764	C	0.726	C	0.777	C	0.015	0.013	No	No
2	Van Nuys Boulevard/Valerio Street	CMA	0.562	A	0.614	B	0.563	A	0.614	B	0.001	0.000	No	No
3	Tyrone Avenue/Valerio Street	CMA	0.258	A	0.273	A	0.272	A	0.279	A	0.014	0.006	No	No
4	Hazeltine Avenue/Valerio Street	CMA	0.593	A	0.548	A	0.650	B	0.585	A	0.057	0.037	No	No
5	Woodman Avenue/Valerio Street	CMA	0.809	D	0.631	B	0.824	D	0.661	B	0.015	0.030	No	No
6	Van Nuys Boulevard/Sherman Way	CMA	0.660	B	0.763	C	0.666	B	0.770	C	0.006	0.007	No	No
7	Tyrone Avenue/Sherman Way	CMA	0.464	A	0.439	A	0.468	A	0.440	A	0.004	0.001	No	No
8	Hazeltine Avenue/Sherman Way	CMA	0.764	C	0.707	C	0.765	C	0.732	C	0.001	0.025	No	No
9	Woodman Avenue/Sherman Way	CMA	0.892	D	0.849	D	0.900	D	0.853	D	0.008	0.004	No	No

Source: Dudek 2019
Note: CMA = LADOT CMA Methodology; **BOLD** value indicates unsatisfactory LOS
[1] Volume-to-Capacity (V/C) ratio
[2] Level of Service (LOS)

Attachment 2b
Volume to Capacity Ratios (v/c) and Levels of Service (LOS)
Cumulative (2023) + Project

No.	Intersection	LOS Method	Future 2023				Future 2023 plus Project				Change in V/C		Significant Impact	
			AM Peak		PM Peak		AM Peak		PM Peak					
			Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	AM	PM	AM	PM
1	Van Nuys Boulevard/Saticoy Street	CMA	0.734	C	0.787	C	0.749	C	0.800	C	0.015	0.013	No	No
2	Van Nuys Boulevard/Valerio Street	CMA	0.583	A	0.635	B	0.583	A	0.636	B	0.000	0.001	No	No
3	Tyrone Avenue/Valerio Street	CMA	0.268	A	0.283	A	0.282	A	0.290	A	0.014	0.007	No	No
4	Hazeltine Avenue/Valerio Street	CMA	0.611	B	0.566	A	0.668	B	0.601	B	0.057	0.035	No	No
5	Woodman Avenue/Valerio Street	CMA	0.833	D	0.653	B	0.849	D	0.683	B	0.016	0.030	No	No
6	Van Nuys Boulevard/Sherman Way	CMA	0.699	B	0.797	C	0.705	C	0.803	D	0.006	0.006	No	No
7	Tyrone Avenue/Sherman Way	CMA	0.481	A	0.458	A	0.485	A	0.458	A	0.004	0.000	No	No
8	Hazeltine Avenue/Sherman Way	CMA	0.789	C	0.732	C	0.791	C	0.757	C	0.002	0.025	No	No
9	Woodman Avenue/Sherman Way	CMA	0.920	E	0.877	D	0.929	E	0.881	D	0.009	0.004	No	No

Source: Dudek 2019
Note: CMA = LADOT CMA Methodology; **BOLD** value indicates unsatisfactory LOS
[1] Volume-to-Capacity (V/C) ratio
[2] Level of Service (LOS)