

Prepared for

Northridge Properties, LLC
15505 Roscoe Boulevard
North Hills, California 91343

SUPPLEMENTAL SITE INVESTIGATION REPORT

**777 North Front Street
Burbank, California**

Prepared by

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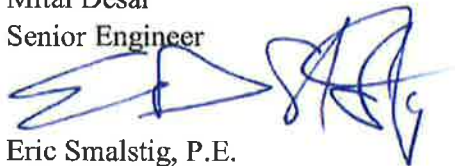
Northridge Properties, LLC

Geosyntec's services were performed and this report has been prepared in accordance with generally accepted professional standards of care applicable to the scope of services authorized by the client, and no other warranty is provided in connection therewith.

Consistent with applicable professional standards of care, information and results presented in this report were based in part on data furnished by others. Although we were not able to independently verify such data, we did evaluate its consistency with other information that was developed in the course of our performance of this scope of services.



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LIST OF ACRONYMS / ABBREVIATIONS

1,1,1-TCA	1,1,1-Trichloroethylene
1,1-DCE	1,1-Dichloroethylene
ac-ft	acre-feet
bgs	below ground surface
Cal EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAM	California Administrative Manual
CDWR	California Department of Water Resources
CHHSLs	California Human Health Screening Levels
CrVI	Hexavalent Chromium
DTSC	Department of Toxic Substance Control
ELAP	Environmental Laboratory Accreditation Program
ft	feet
bgs	below ground surface
GAMA	Groundwater Ambient Monitoring and Assessment
GC/MS	Gas Chromatography/Mass Spectrometry
GPS	Global Positioning System
HGC	Hydro Geo Chem. Inc.
IDW	Investigation Derived Waste
LARWQCB	Los Angeles Regional Water Quality Control Board
ml/min	milliliter per minute
OTIE	Oneida Total Integrated Enterprises
PCB	Polychlorinated Biphenyls
PCE	Tetrachloroethylene
PID	Photoionization Detector
RL	Reporting Limit
RSL	Regional Screening Levels
RWQCB	Regional Water Quality Control Board

SFV	San Fernando Valley
SWRCB	State Water Resources Control Board
SVE	Soil Vapor Extraction
TCE	Trichloroethylene
TPH	Total Petroleum Hydrocarbon
ULARA	Upper Los Angeles River Area
ULARAW	Upper Los Angeles River Area Watermaster
USEPA	United States Environmental Protection Agency
USCS	Unified Soil Classification System
USGS	United States Geological Survey
VOC	Volatile Organic Compound

1. INTRODUCTION

1.1 Overview

Geosyntec Consultants, Inc. (Geosyntec) has prepared this *Supplemental Site Investigation Report* (Report) to document the results of the 2017 supplemental soil and soil vapor investigation that was performed at the 8-acre proposed mixed use development property located at 777 North Front Street in Burbank, California (Site, shown in Figure 1). The additional soil and soil vapor investigation was performed at the request of the Los Angeles Regional Water Quality Control Board (LARWQCB) and in accordance with an informal work plan that was discussed with and approved by the LARWQCB in September 2017. The primary purpose of the supplemental site investigation was to further evaluate the potential for volatile organic compounds (VOCs) in soil and soil vapor within the vadose zone at depths of up to approximately 90 feet below ground surface (ft bgs) in the area where historical impacts of VOCs have been documented.

1.2 Report Organization

The remainder of this Report is organized as follows:

- Section 2 – *Site Background*, which summarizes the Site history, background, usage, prior investigations/remediation, regulatory context and proposed redevelopment plan.
- Section 3 – *Supplemental Soil and Soil Vapor Investigation*, which describes the methodology used to perform the supplemental investigation.
- Section 4 – *Results*, which presents the results of the supplemental investigation.
- Section 5 – *Summary*, which summarizes the extent of testing performed at the Site.
- Section 6 – *References*.

2. SITE BACKGROUND

2.1 Site Description

The Site is located at 777 North Front Street in Burbank, California, in a commercial/industrial area of Los Angeles County. The Site is bounded by the Interstate-5 freeway to the northeast, North Front Street to the southwest, West Burbank Boulevard to the northwest, and West Magnolia Boulevard to the southeast (Figure 1).

Background information regarding the Site presented in this section is largely based on the summary within the most recent Site-wide *Soil Gas Survey and Soil Investigation, Eight-Acre Proposed Mixed Use Development* by Leighton [Leighton, 2016]. From the 1930s to 1961, the Site was the location of a water heater manufacturing company with operations that included galvanizing, vulcanizing, plating, welding, and metalwork. From 1961 to 1991, the Site was owned and operated by Zero Corporation, whose operations included aluminum case drawing and washing, aluminum alodining (a metal coating process involving chromium and aluminum), chromate deoxidizing, steel phosphate coating and chromium sealing [Leighton, 2016]. Zero Corporation ceased operations onsite in 1991 and sold the Site in 1998 but continued remedial activities thereafter. The buildings onsite were demolished in 2004, with the building concrete slabs and footings (i.e., surface cover comprised of several inches to approximately one-foot thick concrete) left in place. The Site has been vacant since that time, having no uses since 1991 (other than temporary rentals for filming of motion picture or television productions and other marginal uses until the buildings were demolished). Northridge Properties, LLC, purchased the Site in 2005, and is the current owner. Site use during Northridge Properties' ownership has included occasional, short-term licenses or rentals to horse circus show productions (e.g., Cavalia). In addition, Caltrans has had a temporary construction staging area easement on a portion of the Site during the Interstate 5 widening operations, and a portion of the Caltrans' easement area is permanent for the widening of Interstate-5. Otherwise, the Site is vacant.

2.2 Geological Description

2.2.1 Regional Geology

The Site is located in the San Fernando Valley (SFV), a late Tertiary-Quaternary basin bounded by the Santa Susana Mountains to the northwest, the San Gabriel and Verdugo Mountains to the northeast, the San Rafael Hills to the east, the Santa Monica Mountains to the south, and the Simi Hills to the west [Upper Los Angeles River Area Water Master (ULARAW), 2016; Tinsley, 2001]. The SFV is part of the broader Transverse Ranges

physiographic province [United States Geological Survey (USGS), 1996]. The Transverse Ranges province is characterized by fault-created valleys filled with marine to terrestrial sediments of Pleistocene through Holocene age, which are underlain by sedimentary bedrock and/or crystalline basement rock [USGS, 2012; ULARAW, 2015].

The water-bearing alluvial deposits in SFV consist of the Holocene and Pleistocene age alluvium underlain by the lower Pleistocene Saugus Formation, [California Department of Water Resources (CDWR), 2004]. The eastern part of the SFV Holocene age alluvium consists of about 20% clay mixed with primarily coarse-grained unsorted gravel and sand. The Pleistocene age alluvium consists of mostly highly permeable, unconsolidated coarse-grained alluvial fan interspersed with lower permeability paleosols. The Saugus Formation consists of continental and shallow marine deposits with lower permeability than that of the overlying alluvium [ULARAW, 2016]. In the eastern SFV, the Saugus Formation lies above the crystalline bedrock, where it reaches a maximum thickness of approximately 1,000 ft.

2.2.2 Site-Specific Geology

The geology of the Site has been described in previous reports based on subsurface investigations conducted since the early 1990s [Targhee Inc., 1991; Hydro Geo Chem (HGC), 1992; HGC, 1999; Ninyo & Moore, 2009; Geosyntec 2012; Geocon West Inc. (Geocon), 2016; Leighton 2016; Oneida Total Integrated Enterprises (OTIE), 2016; and Geosyntec, 2017]. Each study found that Quaternary alluvial soils extended to the maximum depth of exploration. Soil borings on the Site indicate that Quaternary alluvial soils extend to at least 90 ft depth [Geosyntec, 2017], while nearby borings drilled for the installation of groundwater monitoring wells PWA-2 and PWA-3 indicate that, locally, alluvial soils extend to a least 163 ft [OTIE, 2016].

One study [Geocon, 2016] describes a continuous layer of artificial fill across the entirety of the Site, from surface or below the concrete slab, to as deep as 14 ft bgs. The other Site studies reviewed have not identified a continuous layer of artificial fill at the Site, and at least one [Ninyo & Moore, 2009] describes the upper-most soils as alluvium. Field observations by Geosyntec staff [Geosyntec, 2012; 2016; 2017] suggest that, outside of uncommon instances where concrete clasts are observed in soils beneath the slab, shallow soils at the Site likely consist of alluvial soils.

Soils within the upper 90 ft at the Site can be grouped into three general categories. Silty sands (SM) and sandy silts (ML) are most common, and are typically brown, moist, and have poorly graded fine sand and a minor gravel component (5-15%). Well graded sands (SW) with gravel are also observed, especially in the northwestern portion of the Site.

These soils are typically pale grey, slightly moist or dry, and have notably angular sand grains and gravel clasts suggesting very little weathering and transport prior to deposition. Clays (CL) are also present, though uncommon and discontinuously distributed across the site. These soils are typically brown, moist to very moist, medium plastic, and contain little sand and only trace gravel, if any.

The stratigraphy of the Site may be defined in terms of two distinct zones: a continuous sequence of sandy silts and silty sands in the upper-most 12 to 30 ft, and a sequence of well graded sands to silty sands containing thin discontinuous lenses of fine-grained material below. The lower sequence is characteristic of typical alluvial fan deposits, with coarse-grained, angular, gravelly well graded sands, silty sands with gravel, and scattered sheets or lenses of finer grained material. The upper sequence records recent development of the eastern SFV, with semi-continuous layers of sandy silt and silty sand typical of basin deposition.

2.3 Hydrogeological Description

2.3.1 Regional Hydrogeology

The Site is located in the Upper Los Angeles River Area (ULARA) in the eastern part of SFV Basin of the South Coast Hydrologic Region. The SFV receives an average annual precipitation of about 17 inches and much of this surface water is drained by the Los Angeles River and its tributaries [CWDR, 2004]. Groundwater flows from the edges to the central portion of the SFV Basin, into the eastern portion of the basin, beneath the Los Angeles River Narrows following the Los Angeles River near Glendale, and into the Coastal Plain of Los Angeles Basin. The groundwater flow velocity is about 5 ft per year in the western part of the basin and reaches as much as 1,300 ft per year beneath the Los Angeles River Narrows [CWDR, 2004].

Groundwater in the eastern part of the SFV basin is primarily calcium bicarbonate in nature [CDWR, 2004]. The SFV Basin has an estimated storage capacity of 3,200,000 acre-feet (ac-ft) of groundwater, with a maximum thickness of water-bearing alluvial deposits in the eastern portion of the SFV Basin of about 200 to 300 ft [ULARAW, 1999; ULARAW, 2016]. Groundwater in this region is mainly unconfined and, since water adjudication in the 1980s, levels have remained reasonably stable, although up to 80 ft variations in water level in the eastern portion has occurred historically [CDWR, 2004].

2.3.2 Site-Specific Hydrogeology

In 1991, as a part of a soil vapor (interchangeably referred to as “soil gas” in other sections of this Report) survey performed by Leighton on the adjacent Hyrail property (a linear rail property extending along the western boundary of the Site), two soil borings were drilled to groundwater at approximately 110 ft bgs [Leighton, 2016]. As part of regional United States Environmental Protection Agency (USEPA) investigations, groundwater elevations from 31 January 2013 were reported for two wells adjacent to the Site, PWA-2 and PWA-3, as 123.34 and 105.84 ft bgs, respectively [OTIE, 2016]. Site-specific aquifer properties have not been identified. Based on the Site-specific geology and regional geologic descriptions, the predominant soil type within the aquifer is sand, with some intervals of finer (silt) or coarser (gravel) materials mixed with sand.

2.3.3 Water Usage

The South Coast Hydrologic Region meets approximately 23% of its agricultural and municipal water demands with groundwater [CDWR, 2004]. The three parties with pumping rights in the SFV Groundwater Basin, the City of Los Angeles, Burbank, and Glendale, get a significant portion of their municipal water supply from the basin [ULARAW, 2016].

Based on the California State Water Resources Control Board’s (SWRCB) Groundwater Ambient Monitoring and Assessment (GAMA) online database, there are eight supply wells within one mile of the Site. Six of these are Department of Water Resources wells, and only limited information about these wells could be identified. The other wells are City of Burbank Water Department wells [ERM, 2011]; these supply wells are screened from approximately 75 to 330 ft bgs, indicating that shallow groundwater has been used for water supply.

2.4 Historical Site Investigations, Assessments and Remedial Activities

2.4.1 Pre-Remediation Site Investigations

An initial Site investigation in 1991 identified that soils in the areas of former clarifiers and former chemical/oils storage were impacted by VOCs and total petroleum hydrocarbons (TPH) [Targhee Inc., 1991]. Additional Site investigations performed between 1992 and 1995 by HGC indicated that Site soil and soil vapor were impacted by chlorinated VOCs. Subsurface environmental assessment was performed by Law/Crandall in 1997 at five “hot spots” identified on the Site. Site investigation sampling locations by Targhee Inc., HGC and Law/Crandall are presented in Figure 2 and 3 for soil and soil vapor respectively, to the extent they were available.

2.4.2 Remediation and Closure

Site remediation activities were performed from 1998 to 2001 [HGC, 2001]. Two active soil remedial phases were approved by the LARWQCB in 1998 and 1999, consisting of using a shallow (i.e., up to 50 ft bgs) soil vapor extraction (SVE) and treatment system (Phase 1) and a deeper (i.e., between 50 and 85 ft bgs) SVE and treatment system with air sparging wells (Phase 2). Approximately 8,000 pounds of VOCs were removed by the SVE system; 79% of the total mass consisted of perchloroethylene (PCE) and petroleum hydrocarbons removal, and the remaining 21% of total mass removal consisted of trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), and 1,1-dichloroethene (1,1-DCE) [HGC, 2001].

Following Phase 1 and Phase 2 remediation activities, HGC submitted a work plan for site closure based on the remedial progress. The LARWQCB approved the work plan on 2 October 2000. Closure activities conducted between October 2000 and February 2001 consisted of two rounds of soil vapor sampling, rebound monitoring, and groundwater sampling [HGC, 2001]. APW North America, Inc. (the former Zero Corporation) obtained a No Further Requirements (NFR) letter for VOC soil contamination with respect to the San Fernando Cleanup Program from the LARWQCB 28 November 2001. Further, a Certificate of Completion was provided to APW North America, Inc. on 1 July 2002 from the LARWQCB as the designated Administering Agency for the Site under California's Unified Agency Review of Hazardous Materials Release Sites Law. The Certificate of Completion noted "...Site mitigation activities have satisfied the requirements of all agencies concerned with the hazardous substance release."

2.4.3 Post-Closure Investigations

Additional Site investigations were performed following issuance of the Certificate of Completion for a variety of reasons. The post-closure Site investigations included:

- Soil sampling performed in 2005 by Golder & Associates in former electrical transformer areas that were identified as potential polychlorinated biphenyl (PCB) sources after the demolition of the buildings in 2004. The results of this study did not indicate the presence of PCBs in soil on-Site [Leighton, 2016].
- Soil and soil vapor sampling performed in 2009 by Ninyo & Moore within the northeastern portion of the Site where the Interstate I-5 widening project was planned indicated soil concentrations of hexavalent chromium (CrVI) above regional background, and concentrations of VOCs in soil vapor above relevant human health screening criteria. The area of this investigation has since been

deeded to CalTrans as a permanent easement in connection with the Interstate I-5 widening project.

- Soil sampling performed at the request of LARWQCB for CrVI performed in 2012 by Geosyntec found detectable levels of CrVI that were below the residential and commercial/industrial soil California Human Health Screening Levels (CHHSLs). The CrVI concentrations in the soil samples were above the relevant USEPA residential soil regional screening level (RSL) but below the commercial/industrial soil RSL. Select soil samples were additionally analyzed for a larger suite of metals. The vertical distribution of CrVI in soil was inconsistent with historical releases of CrVI that would have affected groundwater and did not suggest that historical Site activities had contributed to the groundwater basin's regional CrVI contamination. In addition and at the request of the LARWQCB, confirmation soil sampling near boring SS-4 was performed in 2016 with no detectable concentration of CrVI in shallow soils identified [Geosyntec, 2016].
- A geotechnical investigation related to the currently-proposed multi-family residential, hotel, and commercial mixed-use at the Site was conducted in 2016 by Geocon. This investigation¹ included soil dry bulk density, soil moisture, and porosity data up to 61.5 ft bgs.
- In addition to the geotechnical investigation, pre-development environmental soil and soil vapor investigation was performed at the Site by Leighton in 2016 [Leighton, 2016]; a grid-based (approximately 100 ft by 100 ft) and biased sampling approach included a total of 36 soil borings up to 30 ft bgs. The borings were advanced and soil was sampled at multiple depths. The soil samples were analyzed for VOCs, TPH, and CAM-17 metals. Soil samples with total chromium results greater than 50 milligrams per kilogram (mg/kg) were subsequently analyzed for CrVI. Soil vapor probes were installed at the bottom of each boring, at various depths. Soil vapor samples were analyzed for VOCs and were found throughout the Site at multiple depths. VOCs and metals were detected in the soil samples from the Site vadose zone. Multiple soil samples collected in the northwest-central portion of the Site contained elevated concentrations of total lead, zinc, and copper which, if excavated, will require management of the soil as California hazardous waste.

¹ Environmental sampling was not included during this investigation; therefore, the locations are not included in the figures.

Soil and soil vapor sampling locations from these investigations are presented on Figure 4 (soil) and Figure 5 (soil vapor) to the extent they were available and well documented.

2.5 Future Re-Development Plans

The proposed re-development of the Site introduced in the previous section is for a mixed-use residential and commercial complex. Proposed improvements include residential apartments, a hotel, limited ground floor commercial use, a park and bicycle hub with amphitheater style seating in the southernmost area of the Site, and first floor as well as tower pedestal parking structures. These future development plans are depicted in Figure 6.

3. SUPPLEMENTAL SOIL AND SOIL VAPOR INVESTIGATION

The results of the May 2016 soil vapor investigation (performed up to 30 ft bgs) revealed significant rebound of chlorinated VOCs (specifically, PCE, TCE, and 1,1,1-TCA) primarily in the central portion of the Site at levels similar to those previously investigated and remediated. Nine of 37 soil vapor samples (includes duplicates) exceeded the HGC Targeted Cleanup Level for PCE at a depth between 20 to 30 ft bgs. In order to supplement the relatively shallow, development-focused environmental sampling effort performed in 2016, Geosyntec performed a soil and soil vapor investigation in October and November of 2017 that extended up to 60 ft bgs at locations NP-3, NP-5 and NP-7, and up to 90 ft bgs at locations NP-1, NP-2, NP-4, NP-6 and NP-8 (Figure 7). The soil sampling was performed during installation of nested soil vapor probes between 9 and 13 October 2017 while the soil vapor sampling was performed on 16 November 2017. The following presents the investigative methodology that was used to perform the supplemental soil and soil vapor investigation.

3.1 Pre-Field Activities

Geosyntec contacted Underground Service Alert of Southern California (USA/DigAlert) to identify utility lines potentially located in the general vicinity of the proposed boreholes. Ticket number A72770369 was provided by USA/DigAlert.

A geophysical survey was conducted by Spectrum Geophysics of Chatsworth, California at the soil boring locations prior to the initiation of drilling to further evaluate the potential existence of subsurface utility lines or other underground obstructions within the immediate areas of the proposed borings that may not have been identified by USA/DigAlert. Proposed investigation locations were slightly adjusted in the field due to presence of underground anomalies (note 6 to 8-inch steel-reinforced concrete slabs cover the majority of the Site) and access issues related to the Interstate I-5 widening project.

3.2 Sampling Methods

3.2.1 Soil Sampling Methodology

After coring the concrete, eight soil borings were hand-augered to a minimum depth of 5 ft bgs as an added precaution to avoid potentially undetected underground utilities. Eight borings were then advanced using Sonic drilling techniques by BC2 Environmental of Orange, California, (a California licensed drilling company) between 9 and 13 October 2017. Continuous soil cores were obtained by using a telescoping casing truck (Terra Sonic 150CC) mounted to the drilling platform.

Continuous soil cores were collected for stratigraphic description by advancing the 10-ft long, 8 inch nominal diameter core barrel into the underlying geology starting at approximately 5 ft bgs. Upon retrieval of the core barrel, the soil core was extruded in a clear 6 mil plastic sample bag and sealed at both the ends. The depth intervals were appropriately marked on the plastic sample bag and arranged in sequence on an area covered with clean Visqueen[™] sheeting. The plastic sample bags were cut open after the interim target soil interval had been drilled; select photographs were taken of core intervals. A pre-calibrated MiniRAE 3000 photoionization detector (PID) was used to screen the soil cores for the presence of VOCs. The selection criteria for collection of soil samples included: (i) target depths within the planned soil vapor probe screened interval at each nested probe location, and/or (ii) locations with observed discoloration, hydrocarbon odor or positive indications of the presence of VOCs, if any, based on the results of soil screening using a PID. These observations including the soil sampling depths at each drilling location are described in the boring logs provided in Appendix A. A total of 36 soil samples were collected for VOCs using a Terra Core[™] sampler and field preservation techniques (low-head space sampling protocol, USEPA Method 5035).

The logging and description of soil cores was conducted under the supervision of a California Professional Geologist in general accordance with the Unified Soil Classification System (USCS). Borehole logs (Appendix A) include the following information:

- borehole identification and location;
- start and finish dates of drilling;
- soil sample names, depths and time;
- soil description and classifications according to the USCS (particle size distribution, color, moisture content);
- visual impacts, if any;
- PID readings and odor observations, if noted;
- drilling equipment type and model, drilling progress and unusual drilling conditions, if any;
- soil boring diameter;
- sampling equipment;
- depth to groundwater;
- name of person logging boreholes;

- name of supervising California Professional Geologist; and
- name of drilling company.

3.2.2 Soil Vapor Sampling Methodology

Following completion of the soil borings as described in Section 3.2.1, three nested soil vapor probes were installed in the three boring locations (NP-3, NP-5 and NP-7) that were advanced to 60 ft bgs and four nested soil vapor probes were installed in the five soil boring locations (NP-1, NP-2, NP-4, NP-6 and NP-8) that were advanced to 90 ft bgs.

The 5 ft screen interval was placed such that the top 4 ft of the screen was placed adjacent to the coarser material with elevated PID readings and the bottom 1 ft was placed adjacent to the underlying fine grain material. This approach was employed to allow for the VOCs in the finer grain materials, if present, to diffuse into the coarser material and be evaluated under this investigation. Soil vapor probes construction diagrams at each probe location is shown in Appendix B.

After allowing the distribution of VOCs to equilibrate for approximately one month, due to disturbance caused by drilling and the presence of fine grained materials, soil vapor probe sampling was performed on 16 November 2017 in accordance with the California Environmental Protection Agency (CalEPA) *Advisory - Active Soil Gas Investigation* prepared by the Department of Toxic Substance Control (DTSC) and the RWQCB [CalEPA, 2015]. The soil vapor sampling and analytical testing was performed by an on-Site mobile laboratory operated by Jones Environmental, Inc., of Santa Fe Springs, California (an accredited laboratory).

Prior to soil vapor purging or sampling, a shut-in test to check for leaks in the above ground fittings was performed at each probe. The leak test was performed to evaluate the seals in the sampling train, at the ground surface and within the probe interface at each probe using a tracer gas mixture of n-pentane, n-hexane, and n-heptane as the leak-check compounds.

After purging a default of three vapor probe volumes at a rate of approximately 200 milliliter per minute (ml/min), 29 primary and three replicate soil vapor samples were collected in glass gas-tight syringes with Teflon plungers. A vacuum of approximately 30 inches of water was maintained during purging and sampling. The soil vapor samples were injected into the Gas Chromatography/Mass Spectrometry (GC/MS) system within 30 minutes of sampling for analysis using USEPA Method 8260B.

3.3 Sample Handling and Custody

3.3.1 Soil Sample Identification

The soil samples were stored in cooled ice chests maintained at 4°+/-2°C using double-bagged ice. The following information was legibly written with indelible ink on the label attached to the side of each soil sample container:

- Sample ID -Primary samples identified as NP-X-YY, where X is the boring location (1 through 8) and YY is the depth of the sample in ft bgs;
- Sampling date and time; and
- Sampler's initials.

The soil samples were transported to the off-site laboratory under standard chain-of-custody documentation. The chain-of-custody included information such as sampling containers, matrix, date and time of sample collection, and method of analysis. The chain-of-custody forms were signed and dated in indelible ink at the time of relinquishing sampling containers to the laboratory courier.

3.3.2 Soil Vapor Sample Identification

The soil vapor samples were identified as NP-X-YY, where X is the probe location (1 through 8) and YY is the bottom depth of the 5 ft screen interval. The soil vapor samples were logged in the chain-of-custody and analyzed by the on-Site mobile laboratory.

3.4 Analytical Methods

A fixed laboratory certified by the California Department of Public Health's Environmental Laboratory Accreditation Program (ELAP) performed soil analyses for VOCs using USEPA Method 8260B/5035 (TerraCore[™] preparation/limited headspace).

Soil vapor samples were analyzed by an onsite mobile laboratory for VOCs using USEPA Method 8260B.

3.5 Quality Control

3.5.1 Field Quality Control

QC procedures for field equipment (e.g., PID) were achieved by calibrating the equipment according to the manufacturer's specification prior to use at the beginning of each day and by performing a calibration check at the end of each day of sampling.

3.5.2 Quality Control Samples for Soil Samples

Equipment blank samples were collected at a frequency of one per day² of sampling per set of equipment when non-dedicated sampling equipment was used. The equipment blank samples were prepared by pouring deionized water that is certified as free of VOCs and other potentially Site-related constituents in or over the field equipment (e.g., core barrel tip or shoe) and into the appropriate containers after the field equipment had been decontaminated. The equipment blank samples were analyzed for the same constituents as the primary samples to evaluate whether contamination was introduced to the sample from the sampling equipment.

3.5.3 Quality Control Samples for Soil Vapor Samples

One field duplicate sample was collected for every ten primary samples (10 percent of the total number of primary samples). Field duplicate samples were collected in the same manner as the primary samples and analyzed by the mobile laboratory for the same constituents as the primary samples. Agreement between duplicate and primary sample results indicates good sampling and analytical precision.

3.6 Decontamination Procedure

Reusable sampling equipment (e.g., core barrel) was decontaminated prior to use and between each location utilizing steam cleaning. A new pair of disposable nitrile (or equivalent) gloves were used to handle samples and sampling equipment; the gloves were discarded between sampling depths and when moving to a new drilling location.

² Equipment blank sample was not collected on 12 October 2017.

3.7 Investigation Derived Waste Disposal

Investigation-derived waste (IDW) generated during the fieldwork activities consisted of soil cuttings, concrete cores and decontamination water which was stored in 55-gallon drums. The IDW has been characterized as non-hazardous and is pending transportation and off-site disposal.

3.8 Survey

The supplemental Site investigation sampling locations were surveyed using a Global Position System (GPS) and field measurements relative to known fixed points.

4. INVESTIGATIVE RESULTS

This section describes the results of the soil and soil vapor sampling described in Section 3.

4.1 Site Soils and Stratigraphy

Based on the recent investigation, the soil types observed are consistent with sediment derived from an alluvial depositional environment, as described in Section 2.2.2. T generalized Site stratigraphy, based on the observations of this investigation is depicted in a northwest to southeast oriented cross section (labeled A-A') in Figure 8.

4.2 Soil Analytical Test Results

A summary of soil analytical test results is provided in Table 1. Laboratory data reports and chains-of-custodies are included in Appendix C. The soil analytical results were compared with the following Site-specific screening levels (Table 1 and 2) to the extent they were available and/or pertinent:

- HGC Targeted Soil Cleanup Levels presented in Work Plan for No Further Action Closure [HGC, 2000] and approved by the LARWQCB are used as screening levels (SLs) for protection of groundwater (referred as Depth-Specific HGC Soil SLs).
- Soil risk-based concentrations³ (RBC) calculated in Geosyntec's Human Health Risk Assessment (HHRA) dated May 2017 are used as screening levels for protection of human health (referred as the HHRA Soil RBC). Also note that the HHRA Soil RBCs are applicable to the shallow soils (in this case up to approximately 20 ft bgs considering the proposed foundation depth of the parking underlying the entirety of the structures in the redevelopment plan).

Review of the soil analytical test results indicate the following:

- Benzene, Toluene, PCE and TCE were the only constituents detected above the laboratory Reporting Limit (RL). Although detected above the RL, benzene and toluene detections were minor and sporadic in nature. The concentrations of these

³ Note that the RBCs used for comparison are the most conservative among the various scenario (i.e. for various land use, receptors, cancer/non-cancer effects) RBCs calculated for the Site.

constituents were well below the HHRA Soil RBCs in shallow soils (Table 1). A Depth-Specific HGC Soil SL is not available for these constituents.

- TCE was also detected in minor concentrations with the exception of NP-8-81 where it was detected at an estimated (i.e., J-flagged, denoting estimated below the laboratory reporting limit) quantity of 79 µg/kg. While the concentrations in shallow soil remained below the HHRA Soil RBCs (Table 1), the concentration observed at NP-8-81 is above the Depth Specific HGC Soil SLs of 5 µg/kg (Table 2).
- PCE was detected below the HHRA Soil RBCs in shallow soils, however, it exceeded the Depth Specific HGC Soil SLs at NP-2 (at 36, 50 and 80 ft bgs), NP-3 (12 and 16 ft bgs), NP-4 (at 40 and 80 ft bgs) and NP-8 (at 81 ft bgs) as shown in Table 2.
- PCE detections above the Depth Specific HGC Soil SLs are primarily in the central portion of the Site consistent with the historical information.

4.3 Soil Vapor Analytical Test Results

A summary of soil vapor analytical test results is provided in Table 3. Laboratory data reports and chain-of-custodies are included in Appendix D. The soil vapor analytical results were compared with the following Site-specific screening levels (Table 3 and 4) to the extent they were available:

- HGC Equivalent Soil Gas Concentrations presented in Work Plan for No Further Action Closure dated 26 June 2000 and approved by the LARWQCB are used as screening levels for protection of groundwater (referred as Depth-Specific HGC Soil Vapor SLs).
- Soil vapor RBCs⁴ calculated in Geosyntec's HHRA dated May 2017 are used as screening levels for protection of human health (referred as the HHRA Soil Vapor RBC).

⁴ Note that the RBCs used in Table 3 represent the most conservative scenario (i.e. RBCs calculated for exposure when the soil vapor concentration is at 4 ft bgs). Since PCE and TCE concentrations exceeded the most conservative RBCs in multiple samples, depth specific soil vapor RBCs were used in Table 4 which provides a reasonable comparison compared to the worst case comparison in Table 3.

Review of the soil vapor analytical test results indicate the following:

- A number of VOCs were detected in soil vapor samples collected at various depths; the detections, however, were below the respective worst case HHRA Soil Vapor RBC with the exception of PCE and TCE (Table 3).
- Since PCE and TCE exceeded the worst case HHRA Soil Vapor RBC, the concentrations were compared with Depth Specific HHRA Soil Vapor RBC (Table 4). In addition, 1,1,1 TCA, 1,1-DCE, PCE and TCE soil vapor sample concentrations were also compared with Depth-Specific HGC Soil Vapor SLs (Table 4). As shown in Table 4:
 - 1,1,1-TCA and 1,1-DCE in the soil vapor samples did not exceed the Depth-Specific HGC Soil Vapor SLs;
 - PCE concentrations in the soil vapor samples exceeded the Depth-Specific HHRA Soil Vapor RBC at NP-2, NP-3 and NP-4 (multiple depths) and also exceeded the Depth-Specific HGC Soil Vapor SLs at NP-1, NP-2, NP-3 and NP-4 (multiple depths).
 - TCE concentrations were below the Depth-Specific HHRA Soil Vapor RBC but above the Depth-Specific HGC Soil Vapor SLs at NP-2, NP-4 and NP-5. However, these exceedances were slightly above the screening levels.
- The highest concentrations of VOCs in soil vapor samples exist in the central area of the Site (near the former connection between Buildings 11 and 12). Figure 9 present isometric view of interpolated PCE soil vapor concentration above 200 µg/l in subsurface soil matrix at the Site.

5. SUMMARY

Since 1991, multiple soil and soil vapor investigations have been conducted at the Site to comply with the RWQCB Well Investigation Program directive pertaining to the investigation of the San Fernando Valley Superfund area. The results of the investigations discovered the presence of chlorinated VOCs in the soil and soil vapor as well as soil affected by elevated concentrations of selected metals. Most of the investigations were performed to evaluate the source(s) of, and nature of, the VOCs and metals impacts, as well as to characterize their lateral and vertical extent in subsurface soils at the Site (as described in Section 2). The results of these investigations, which included pilot testing for an SVE system were used to design a full scale, phased SVE and treatment system for remediation of the VOCs in the subsurface. SVE remediation was performed at the Site between May 1998 and October 2000. The responsible party for the Site obtained a No Further Requirements letter and a Certificate of Completion from the LARWQCB in 2001 and 2002, respectively.

Post-closure investigations have also been performed at the Site:

- 1) 2009 - in connection with CalTrans's acquisition of a portion of the Site to expand Interstate 5 [Ninyo & Moore, 2009],
- 2) 2012 – 2016 - to evaluate whether CrVI concentrations in soil at the Site indicates a significant past release that may have contributed to the regional contamination [Geosyntec, 2012 and 2016],
- 3) 2016 - to evaluate subsurface conditions throughout the Site in preparation for redevelopment [Leighton, 2016], and
- 4) 2017 - to supplement the Site investigation data and evaluate the subsurface conditions below 30 ft bgs, and above the regional water aquifer.

The review of these investigative results indicates: (i) significant rebound of VOCs in soil vapor samples collected in the central portions of the Site (where former Buildings 11 and 12 were located) at levels similar to those previously investigated and remediated, (ii) elevated concentrations of selected metals in soil in the northwest-central portion of the Site, and (iii) the CrVI concentrations in soil samples did not suggest that historical Site activities had contributed to the groundwater basin's regional CrVI contamination.

The results of the historical and aforementioned environmental investigations at the Site provide sufficient information describing the lateral and vertical extent of VOCs to

facilitate the process of evaluating path forward options to promote the proposed redevelopment project. The areas where elevated metal concentrations were discovered in soil appear localized and will be addressed during Site redevelopment activities. The development of a Soil Contingency and Management Plan, which will be provided to the LARWQCB for review and comment, will facilitate the proposed redevelopment activities should previously unknown areas of contamination be discovered during construction.

6. REFERENCES

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TABLES

TABLE 1
2017 Supplemental Soil Investigation Results
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Sample Location	Sample Depth	Sample Date	Units	Benzene ¹	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)
NP-1	12	10/9/2017	µg/kg	ND< 0.73	ND< 0.73	ND< 0.73	ND< 1.5
	22	10/9/2017	µg/kg	ND< 0.80	ND< 0.80	ND< 0.80	ND< 1.6
	50	10/9/2017	µg/kg	2.9	ND< 0.84	1.4	ND< 1.7
	67	10/9/2017	µg/kg	ND< 0.95	ND< 0.95	ND< 0.95	ND< 1.9
	88	10/9/2017	µg/kg	ND< 0.95	ND< 0.95	ND< 0.95	ND< 1.9
NP-2	6	10/9/2017	µg/kg	ND< 0.97	30	ND< 0.97	ND< 1.9
	28	10/9/2017	µg/kg	ND< 0.88	26	ND< 0.88	ND< 1.8
	36	10/9/2017	µg/kg	1.2	110	ND< 0.87	ND< 1.7
	50	10/10/2017	µg/kg	1.1	65	ND< 0.90	ND< 1.8
	80	10/10/2017	µg/kg	ND< 0.91	12	ND< 0.91	ND< 1.8
NP-3	12	10/10/2017	µg/kg	ND< 1.0	91	ND< 1.0	ND< 2.0
	16	10/10/2017	µg/kg	ND< 47	99	ND< 47	ND< 93
	32	10/10/2017	µg/kg	ND< 48	ND< 48	ND< 48	ND< 96
	46	10/10/2017	µg/kg	ND< 52	ND< 52	ND< 52	ND< 100
NP-4	10	10/11/2017	µg/kg	ND< 49	ND< 49	ND< 49	ND< 97
	18	10/11/2017	µg/kg	ND< 52	ND< 52	ND< 52	ND< 100
	40	10/11/2017	µg/kg	ND< 50	ND< 50	ND< 50	ND< 99
	58	10/11/2017	µg/kg	ND< 59	ND< 59	ND< 59	ND< 120
	80	10/11/2017	µg/kg	ND< 47	ND< 47	ND< 47	ND< 94
NP-5	18	10/11/2017	µg/kg	ND< 48	ND< 48	ND< 48	ND< 97
	36	10/11/2017	µg/kg	ND< 47	ND< 47	ND< 47	ND< 93
	45	10/11/2017	µg/kg	1.3	ND< 0.91	1.6	ND< 1.8
	56	10/11/2017	µg/kg	ND< 0.88	2.4	ND< 0.88	3.0
NP-6	16	10/13/2017	µg/kg	ND< 0.82	ND< 0.82	ND< 0.82	ND< 1.6
	26	10/13/2017	µg/kg	ND< 0.90	ND< 0.90	ND< 0.90	ND< 1.8
	40	10/13/2017	µg/kg	ND< 0.90	ND< 0.90	ND< 0.90	ND< 1.8
	55	10/13/2017	µg/kg	ND< 0.99	ND< 0.99	ND< 0.99	ND< 2.0
	88	10/13/2017	µg/kg	ND< 1.1	ND< 1.1	ND< 1.1	ND< 2.3
NP-7	22	10/12/2017	µg/kg	ND< 0.89	ND< 0.89	ND< 0.89	ND< 1.8
	34	10/12/2017	µg/kg	ND< 0.97	ND< 0.97	ND< 0.97	ND< 1.9
	49	10/12/2017	µg/kg	ND< 0.86	ND< 0.86	ND< 0.86	ND< 1.7

TABLE 1
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Sample Location	Sample Depth	Sample Date	Units	Benzene ¹	Tetrachloroethene (PCE)	Toluene	Trichloroethene (TCE)
NP-8	18	10/12/2017	µg/kg	ND< 0.80	ND< 0.80	ND< 0.80	ND< 1.6
	24	10/12/2017	µg/kg	ND< 0.78	ND< 0.78	ND< 0.78	ND< 1.6
	42	10/12/2017	µg/kg	ND< 0.82	ND< 0.82	ND< 0.82	ND< 1.6
	59	10/12/2017	µg/kg	ND< 44	ND< 83	ND< 84	ND< 88
	81	10/12/2017	µg/kg	ND< 44	120	ND< 44	ND< 89
Equipment Blank	--	10/9/2017	µg/l	ND< 0.50	ND< 1.0	ND< 1.0	ND< 1.0
	--	10/10/2017	µg/l	ND< 0.50	ND< 1.0	ND< 1.0	ND< 1.0
	--	10/11/2017	µg/l	ND< 0.50	ND< 1.0	ND< 1.0	ND< 1.0
	--	10/13/2017	µg/l	ND< 0.50	ND< 1.0	ND< 1.0	ND< 1.0
GSC HHRA Soil RBCs ²			µg/kg	1,000	950	2,400,000	8,400

Notes:

ND< = not detected above the specified Reporting Limit (RL)

µg/kg = microgram per kilogram

µg/l = microgram per liter

Bold = detected above the RL

1. Constituents if not detected above the RL, are not included in this table.

2. Soil RBCs are Risk-Based Soil Concentration from Geosyntec's Human Health Risk Assessment dated May 2017. The RBCs used herein are the most conservative concentration of constituent among the various RBCs calculated for various land uses, receptors and cancer/non-cancer effects.

TABLE 2
Comparing Soil Results with Depth Specific Screening Levels
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Sample Location	Sample Depth	Sample Date	Units	Tetrachloroethene (PCE)		Trichloroethene (TCE)	
				Depth Specific HGC Soil Screening Level ¹	2017 Soil Sampling Results	Depth Specific HGC Soil Screening Level ¹	2017 Soil Sampling Results
NP-1	12	10/9/2017	µg/kg	63	ND< 0.73	63	ND< 1.5
	22	10/9/2017	µg/kg	48	ND< 0.80	48	ND< 1.6
	50	10/9/2017	µg/kg	20	ND< 0.84	20	ND< 1.7
	67	10/9/2017	µg/kg	9	ND< 0.95	9	ND< 1.9
	88	10/9/2017	µg/kg	5	ND< 0.95	5	ND< 1.9
NP-2	6	10/9/2017	µg/kg	78	30	78	ND< 1.9
	28	10/9/2017	µg/kg	48	26	48	ND< 1.8
	36	10/9/2017	µg/kg	34	110	34	ND< 1.7
	50	10/10/2017	µg/kg	20	65	20	ND< 1.8
	80	10/10/2017	µg/kg	6	12	6	ND< 1.8
NP-3	12	10/10/2017	µg/kg	63	91	63	ND< 2.0
	16	10/10/2017	µg/kg	63	99	63	ND< 93 ²
	32	10/10/2017	µg/kg	34	ND< 48 ²	34	ND< 96 ²
	46	10/10/2017	µg/kg	20	ND< 52 ²	20	ND< 100 ²
NP-4	10	10/11/2017	µg/kg	78	ND< 49	78	ND< 97 ²
	18	10/11/2017	µg/kg	63	ND< 52	63	ND< 100 ²
	40	10/11/2017	µg/kg	34	ND< 50 ²	34	ND< 99 ²
	58	10/11/2017	µg/kg	18	ND< 59 ²	18	ND< 120 ²
	80	10/11/2017	µg/kg	6	ND< 47³	6	ND< 94 ²
NP-5	18	10/11/2017	µg/kg	63	ND< 48	63	ND< 97 ²
	36	10/11/2017	µg/kg	34	ND< 47 ²	34	ND< 93 ²
	45	10/11/2017	µg/kg	20	ND< 0.91	20	ND< 1.8
	56	10/11/2017	µg/kg	18	2.4	18	3.0
NP-6	16	10/13/2017	µg/kg	63	ND< 0.82	63	ND< 1.6
	26	10/13/2017	µg/kg	48	ND< 0.90	48	ND< 1.8
	40	10/13/2017	µg/kg	34	ND< 0.90	34	ND< 1.8
	55	10/13/2017	µg/kg	18	ND< 0.99	18	ND< 2.0
	88	10/13/2017	µg/kg	5	ND< 1.1	5	ND< 2.3
NP-7	22	10/12/2017	µg/kg	48	ND< 0.89	48	ND< 1.8
	34	10/12/2017	µg/kg	34	ND< 0.97	34	ND< 1.9
	49	10/12/2017	µg/kg	20	ND< 0.86	20	ND< 1.7

TABLE 2
Comparing Soil Results with Depth Specific Screening Levels
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Sample Location	Sample Depth	Sample Date	Units	Tetrachloroethene (PCE)		Trichloroethene (TCE)	
				Depth Specific HGC Soil Screening Level ¹	2017 Soil Sampling Results	Depth Specific HGC Soil Screening Level ¹	2017 Soil Sampling Results
NP-8	18	10/12/2017	µg/kg	63	ND< 0.80	63	ND< 1.6
	24	10/12/2017	µg/kg	48	ND< 0.78	48	ND< 1.6
	42	10/12/2017	µg/kg	20	ND< 0.82	20	ND< 1.6
	59	10/12/2017	µg/kg	18	< 44 ²	18	ND< 88 ²
	81	10/12/2017	µg/kg	5	120	5	ND< 89⁴

Notes:

Bold = detected above the RL

Highlighted values are above the HGC Screening Levels (SLs)

1. HGC Targeted Soil Cleanup Levels from HGC Work Plan for No Further Action Closure dated 26 June 2000.
2. Although the RL is above the SL, the Method Detection Limit (MDL, Appendix C) is at or below the SL and the analyte was not detected above the MDL.
3. The analyte was detected at an estimated concentration (between MDL and RL) of 20 µg/kg which is above the SL.
4. The analyte was detected at an estimated concentration of 79 µg/kg which is above the SL.

TABLE 3
2017 Supplemental Soil Vapor Investigation Results
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Sample Location	Sample Depth	Sample Date	Units	1,1,1,2-Tetrachloroethane ¹	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Carbon Tetrachloride	Chloroform	cis-1,2-Dichloroethene	Freon 11/Trichlorofluoromethane	Freon 113	Freon 12/Dichlorodifluoromethane	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	Trichloroethene (TCE)
NP-1	19	11/16/2017	µg/m ³	ND<8	1,100	ND<8	ND<8	ND<8	ND<8	ND<8	ND<8	ND<40	79	26,500	ND<8	ND<8	38
	19 (Replicate)	11/16/2017	µg/m ³	ND<8	1,090	ND<8	ND<8	ND<8	ND<8	ND<8	ND<8	ND<40	90	20,000	ND<8	ND<8	82
	49	11/16/2017	µg/m ³	ND<8	1,010	ND<8	192	ND<8	10	ND<8	ND<8	76	1,720	21,800	ND<8	ND<8	54
	70	11/16/2017	µg/m ³	ND<8	455	ND<8	443	ND<8	21	ND<8	ND<8	98	2,530	13,200	ND<8	ND<8	86
	85	11/16/2017	µg/m ³	11	157	260	1,090	ND<8	22	ND<8	ND<8	ND<40	2,900	46,200	ND<8	ND<8	508
NP-2	15	11/16/2017	µg/m ³	145	ND<8	ND<8	ND<8	ND<8	29	31	ND<8	ND<40	357	1,270,000	ND<8	ND<8	3,350
	37	11/16/2017	µg/m ³	147	ND<8	ND<8	ND<8	ND<8	16	ND<8	ND<8	41	ND<8	1,450,000	ND<8	ND<8	2,600
	51	11/16/2017	µg/m ³	514	ND<8	ND<8	45	ND<8	93	ND<8	ND<8	141	ND<8	3,150,000	10	8	3,990
	81	11/16/2017	µg/m ³	131	ND<8	ND<8	129	ND<8	109	ND<8	ND<8	108	ND<8	1,570,000	ND<8	ND<8	3,380
NP-3	13	11/16/2017	µg/m ³	502	ND<8	ND<8	ND<8	ND<8	83	ND<8	ND<8	ND<40	208	5,120,000	ND<8	10	5,120
	33	11/16/2017	µg/m ³	1,240	8	ND<8	14	ND<8	98	20	ND<8	ND<40	471	8,030,000	20	10	4,790
	53	11/16/2017	µg/m ³	587	ND<8	ND<8	ND<8	ND<8	181	ND<8	ND<8	ND<40	ND<8	3,480,000	ND<8	ND<8	3,210
NP-4	13	11/16/2017	µg/m ³	ND<8	15	ND<8	ND<8	ND<8	ND<8	ND<8	ND<8	ND<40	485	1,890,000	ND<8	ND<8	2,340
	35	11/16/2017	µg/m ³	5,530	ND<8	ND<8	26	ND<8	ND<8	ND<8	ND<8	84	ND<8	1,790,000	ND<8	ND<8	3,430
	51	11/16/2017	µg/m ³	124	ND<8	ND<8	22	ND<8	336	ND<8	ND<8	46	762	684,000	ND<8	ND<8	2,550
	83	11/16/2017	µg/m ³	31	ND<8	ND<8	61	ND<8	1,040	ND<8	ND<8	71	ND<8	781,000	ND<8	ND<8	4,950
NP-5	15	11/16/2017	µg/m ³	ND<8	ND<8	ND<8	ND<8	ND<8	14	ND<8	ND<8	42	303	6,610	ND<8	ND<8	7,320
	35	11/16/2017	µg/m ³	ND<8	ND<8	ND<8	102	ND<8	120	ND<8	ND<8	229	1,940	20,800	ND<8	ND<8	18,900
	57	11/16/2017	µg/m ³	ND<8	ND<8	ND<8	205	ND<8	457	ND<8	ND<8	116	1,070	18,000	ND<8	ND<8	11,700
NP-6	15	11/16/2017	µg/m ³	ND<8	22	ND<8	ND<8	ND<8	ND<8	ND<8	ND<8	ND<40	60	5,580	ND<8	ND<8	13
	40	11/16/2017	µg/m ³	ND<8	ND<8	ND<8	462	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	5,580	ND<8	ND<8	178
	60	11/16/2017	µg/m ³	ND<8	13	ND<8	502	ND<8	22	ND<8	ND<8	ND<40	329	4,440	ND<8	ND<8	678
	86	11/16/2017	µg/m ³	ND<8	ND<8	ND<8	163	ND<8	ND<8	ND<8	ND<8	ND<40	ND<8	5,220	ND<8	ND<8	173
NP-7	17	11/16/2017	µg/m ³	ND<8	19	ND<8	ND<8	ND<8	ND<8	ND<8	ND<8	53	624	5,450	ND<8	ND<8	28
	17 (Replicate)	11/16/2017	µg/m ³	ND<8	20	ND<8	ND<8	ND<8	ND<8	ND<8	8	55	625	5,920	ND<8	ND<8	20
	35	11/16/2017	µg/m ³	ND<8	14	ND<8	134	ND<8	18	ND<8	18	159	1,830	7,920	ND<8	ND<8	1,160
	53	11/16/2017	µg/m ³	ND<8	20	9	991	14	47	ND<8	ND<8	117	1,040	8,410	ND<8	ND<8	3,080

TABLE 3
2017 Supplemental Soil Vapor Investigation Results
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Page 2 of 2

Sample Location	Sample Depth	Sample Date	Units	1,1,1,2-Tetrachloroethane ¹	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	Carbon Tetrachloride	Chloroform	cis-1,2-Dichloroethene	Freon 11/Trichlorofluoromethane	Freon 113	Freon 12/Dichlorodifluoromethane	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	Trichloroethene (TCE)
NP-8	17	11/16/2017	µg/m ³	ND<8	225	ND<8	ND<8	30	ND<8	ND<8	ND<8	ND<40	33	2,290	ND<8	ND<8	ND<8
	37	11/16/2017	µg/m ³	ND<8	250	ND<8	109	34	ND<8	ND<8	ND<8	ND<40	184	3,440	ND<8	ND<8	18
	37 (Replicate)	11/16/2017	µg/m ³	ND<8	242	ND<8	103	32	ND<8	ND<8	ND<8	ND<40	181	2,900	ND<8	ND<8	17
	57	11/16/2017	µg/m ³	ND<8	197	ND<8	1,210	9	ND<8	ND<8	ND<8	105	363	3,370	ND<8	ND<8	429
	80	11/16/2017	µg/m ³	ND<8	196	30	3,840	27	28	ND<8	ND<8	186	450	5,980	ND<8	ND<8	2,310
GSC HHRA Soil Vapor RBCs ²			µg/m ³	5,100	11,000,000	14,000	570,000	NA	1,100	64,000	13,000,000	550,000,000	930,000	6,000	2,700,000	NA	4,700

Notes:

ND< = not detected above the specified Reporting Limit (RL)

µg/m³ = microgram per cubic meter

Bold = detected above the RL, highlighted values exceed GSC HHRA Soil Vapor RBCs

1. Constituents if not detected above the RL are not included in this table.

2. Soil Vapor RBCs are Risk-Based Soil Vapor Concentration from Geosyntec's Human Health Risk Assessment dated May 2017. The RBCs used herein are the most conservative concentration of constituent among the various RBCs calculated for various receptors, building floor scenarios, soil vapor concentration depth and cancer/non-cancer effects.

TABLE 4
Comparing Soil Vapor Results with Depth Specific Screening Levels
777 N. Front Street
Burbank, California
Page 1 of 2

Sample Location	Sample Depth	Sample Date	Units	1,1,1-Trichloroethane		1,1-Dichloroethene		Tetrachloroethene (PCE)			Trichloroethene (TCE)		
				Depth Specific HGC Soil Vapor Screening Level ¹	2017 Soil Vapor Sampling Results	Depth Specific HGC Soil Vapor Screening Level ¹	2017 Soil Vapor Sampling Results	Depth Specific HGC Soil Vapor Screening Level ¹	Depth Specific GSC HHRA RBC ²	2017 Soil Vapor Sampling Results	Depth Specific HGC Soil Vapor Screening Level ¹	Depth Specific GSC HHRA RBC ²	2017 Soil Vapor Sampling Results
NP-1	19	16-Nov-17	µg/m ³	385,000	1,100	150,000	ND<8	71,000	27,000	26,500	28,000	20,000	38
	19 (Replicate)	16-Nov-17	µg/m ³	385,000	1,090	150,000	ND<8	71,000	27,000	20,000	28,000	20,000	82
	49	16-Nov-17	µg/m ³	120,000	1,010	50,000	192	22,000	NA	21,800	10,000	NA	54
	70	16-Nov-17	µg/m ³	55,000	455	25,000	443	10,000	NA	13,200	6,000	NA	86
	85	16-Nov-17	µg/m ³	30,000	157	12,000	1,090	6,000	NA	46,200	3,000	NA	508
NP-2	15	16-Nov-17	µg/m ³	385,000	ND<8	150,000	ND<8	71,000	23,000	1,270,000	28,000	18,000	3,350
	37	16-Nov-17	µg/m ³	205,000	ND<8	80,000	ND<8	38,000	33,000	1,450,000	15,000	25,000	2,600
	51	16-Nov-17	µg/m ³	105,000	ND<8	45,000	45	20,000	NA	3,150,000	9,000	NA	3,990
	81	16-Nov-17	µg/m ³	30,000	ND<8	12,000	129	6,000	NA	1,570,000	3,000	NA	3,380
NP-3	13	16-Nov-17	µg/m ³	385,000	ND<8	150,000	ND<8	71,000	23,000	5,120,000	28,000	18,000	5,120
	33	16-Nov-17	µg/m ³	205,000	8	80,000	14	38,000	33,000	8,030,000	15,000	25,000	4,790
	53	16-Nov-17	µg/m ³	105,000	ND<8	45,000	ND<8	20,000	NA	3,480,000	9,000	NA	3,210
NP-4	13	16-Nov-17	µg/m ³	385,000	15	150,000	ND<8	71,000	23,000	1,890,000	28,000	18,000	2,340
	35	16-Nov-17	µg/m ³	205,000	ND<8	80,000	26	38,000	33,000	1,790,000	15,000	25,000	3,430
	51	16-Nov-17	µg/m ³	105,000	ND<8	45,000	22	20,000	NA	684,000	9,000	NA	2,550
	83	16-Nov-17	µg/m ³	30,000	ND<8	12,000	61	6,000	NA	781,000	3,000	NA	4,950
NP-5	15	16-Nov-17	µg/m ³	385,000	ND<8	150,000	ND<8	71,000	23,000	6,610	28,000	18,000	7,320
	35	16-Nov-17	µg/m ³	205,000	ND<8	80,000	102	38,000	33,000	20,800	15,000	25,000	18,900
	57	16-Nov-17	µg/m ³	105,000	ND<8	45,000	205	20,000	NA	18,000	9,000	NA	11,700
NP-6	15	16-Nov-17	µg/m ³	385,000	22	150,000	ND<8	71,000	23,000	5,580	28,000	18,000	13
	40	16-Nov-17	µg/m ³	205,000	ND<8	80,000	462	38,000	33,000	5,580	15,000	25,000	178
	60	16-Nov-17	µg/m ³	105,000	13	45,000	502	20,000	NA	4,440	9,000	NA	678
	86	16-Nov-17	µg/m ³	30,000	ND<8	12,000	163	6,000	NA	5,220	3,000	NA	173
NP-7	17	16-Nov-17	µg/m ³	385,000	19	150,000	ND<8	71,000	23,000	5,450	28,000	18,000	28
	17 (Replicate)	16-Nov-17	µg/m ³	385,000	20	150,000	ND<8	71,000	23,000	5,920	28,000	18,000	20
	35	16-Nov-17	µg/m ³	205,000	14	80,000	134	38,000	33,000	7,920	15,000	25,000	1,160
	53	16-Nov-17	µg/m ³	105,000	20	45,000	991	20,000	NA	8,410	9,000	NA	3,080

TABLE 4
Comparing Soil Vapor Results with Depth Specific Screening Levels
777 N. Front Street
Burbank, California
Page 2 of 2

Sample Location	Sample Depth	Sample Date	Units	1,1,1-Trichloroethane		1,1-Dichloroethene		Tetrachloroethene (PCE)			Trichloroethene (TCE)		
				Depth Specific HGC Soil Vapor Screening Level ¹	2017 Soil Vapor Sampling Results	Depth Specific HGC Soil Vapor Screening Level ¹	2017 Soil Vapor Sampling Results	Depth Specific HGC Soil Vapor Screening Level ¹	Depth Specific GSC HHRA RBC ²	2017 Soil Vapor Sampling Results	Depth Specific HGC Soil Vapor Screening Level ¹	Depth Specific GSC HHRA RBC ²	2017 Soil Vapor Sampling Results
NP-8	17	16-Nov-17	µg/m ³	385,000	225	150,000	ND<8	71,000	23,000	2,290	28,000	18,000	ND<8
	37	16-Nov-17	µg/m ³	205,000	250	80,000	109	38,000	33,000	3,440	15,000	25,000	18
	37 (Replicate)	16-Nov-17	µg/m ³	205,000	242	80,000	103	38,000	33,000	2,900	15,000	25,000	17
	57	16-Nov-17	µg/m ³	105,000	197	45,000	1,210	20,000	NA	3,370	9,000	NA	429
	80	16-Nov-17	µg/m ³	40,000	196	15,000	3,840	7,000	NA	5,980	4,000	NA	2,310

Notes:

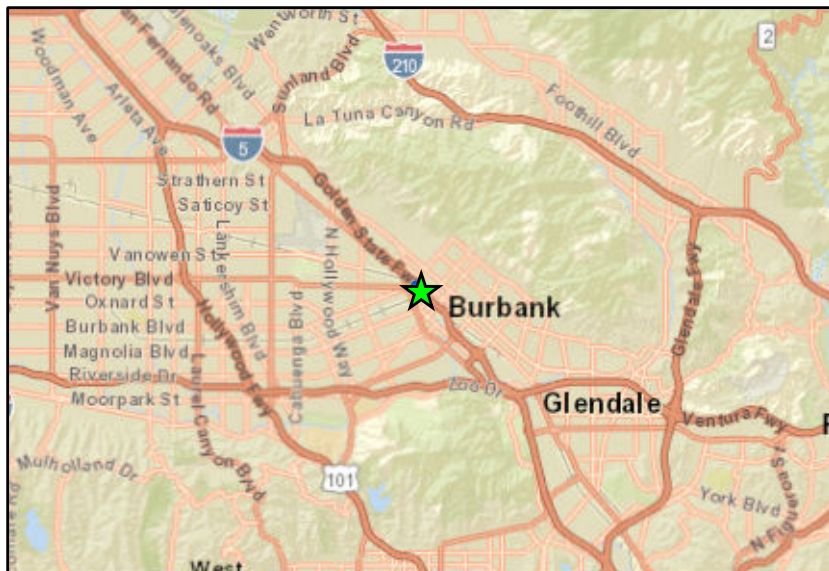
Bold = detected above the RL

Highlighted values either exceeds HGC Screening Levels or Depth Specific GSC HHRA RBCs

1. HGC Equivalent Soil Gas Concentrations for Targeted Soil Cleanup Levels from HGC Work Plan for No Further Action Closure dated 26 June 2000.

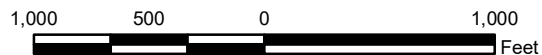
2. Since PCE and TCE concentrations exceeded the worst case scenario soil vapor screening levels (calculated for concentrations at 4 ft bgs as shown in Table 3), the nearest depth specific RBC was instead used for comparison in this table from Geosyntec's Human Health Risk Assessment dated May 2017.

FIGURES



Site Location

Site Location
777 North Front Street
 Burbank, California



Legend

 Site Boundary

Sources: Esri, HERE, Garmin, USGS, Intermap,

Geosyntec
 consultants

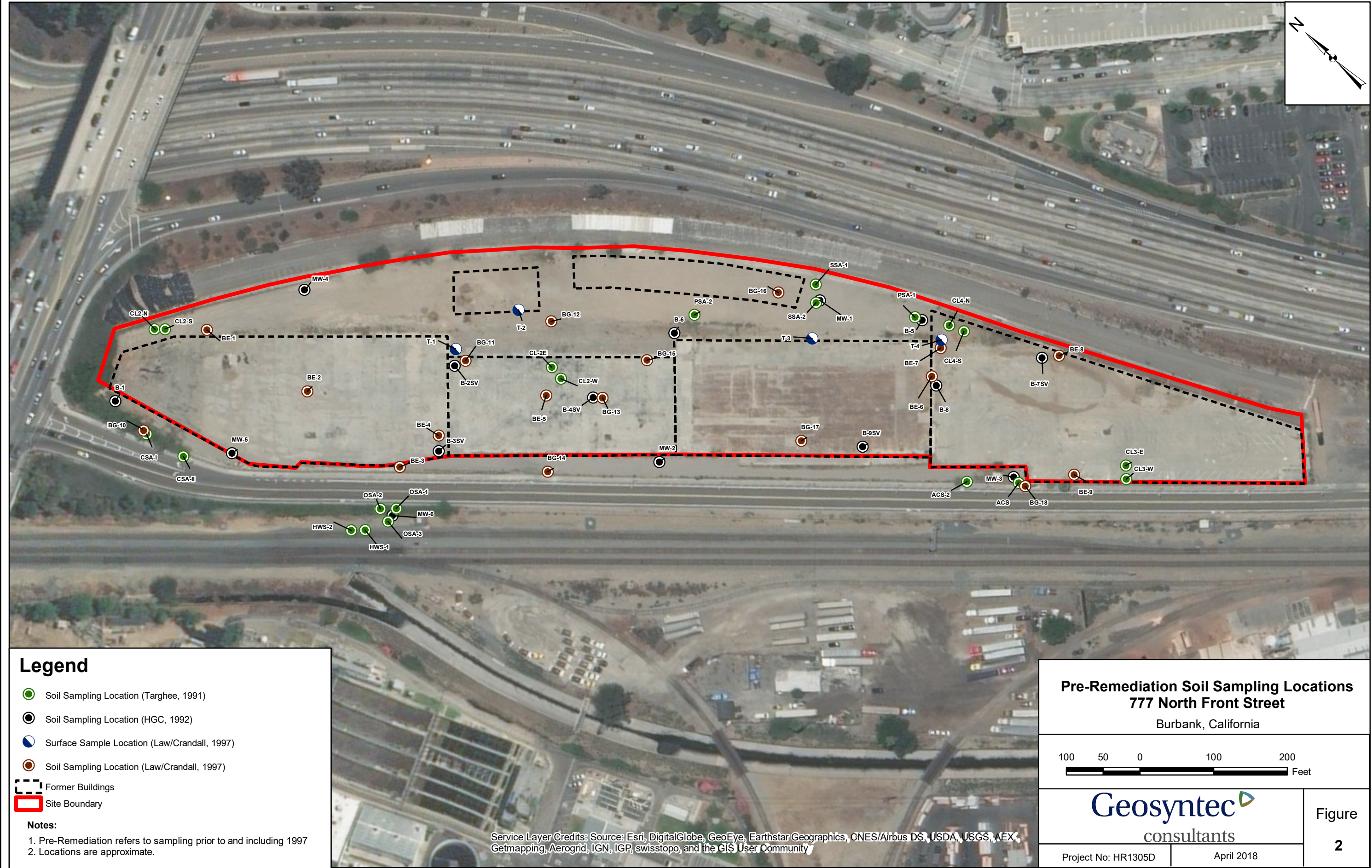
Figure

1

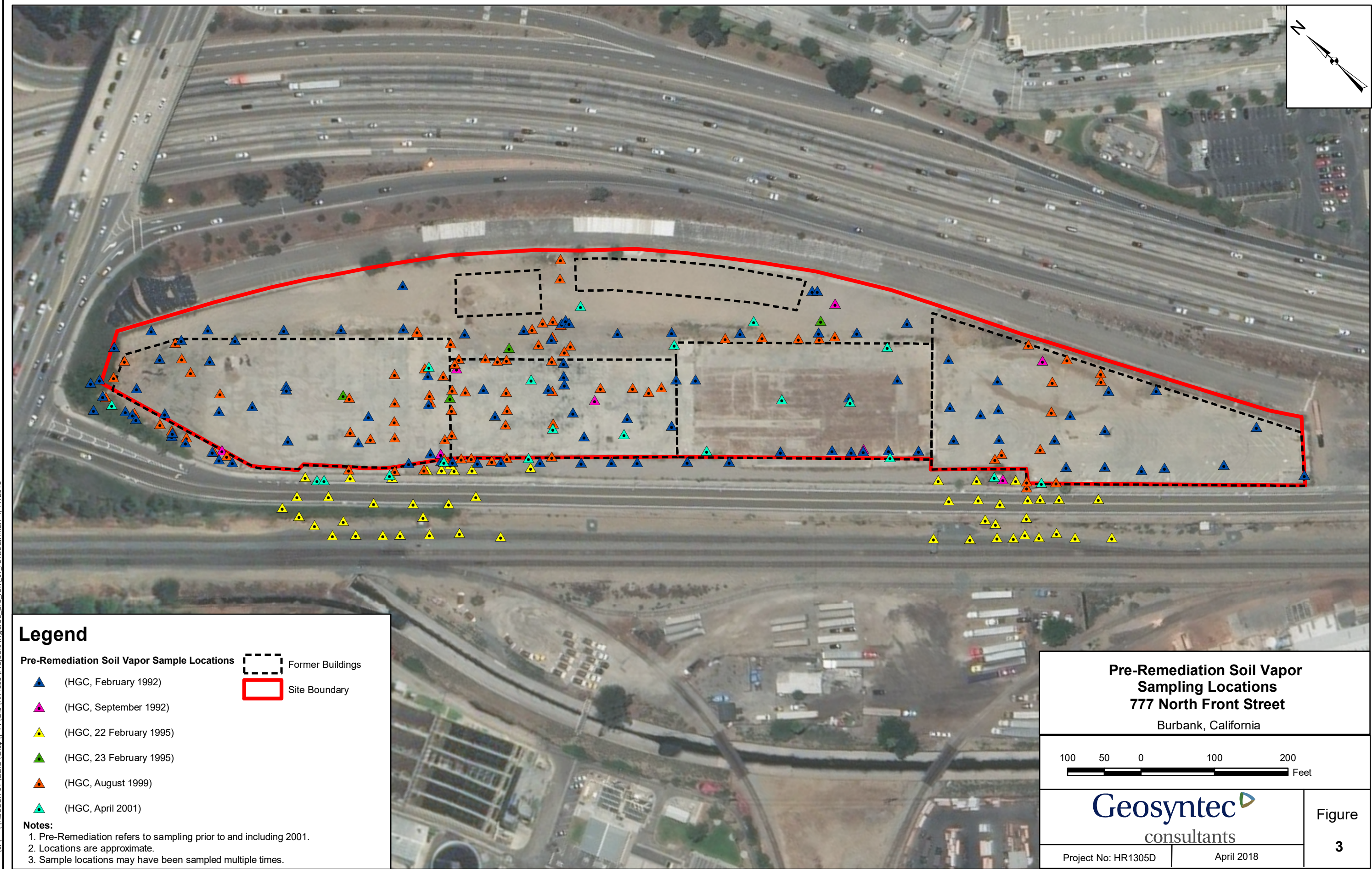
HR1305D

April 2018

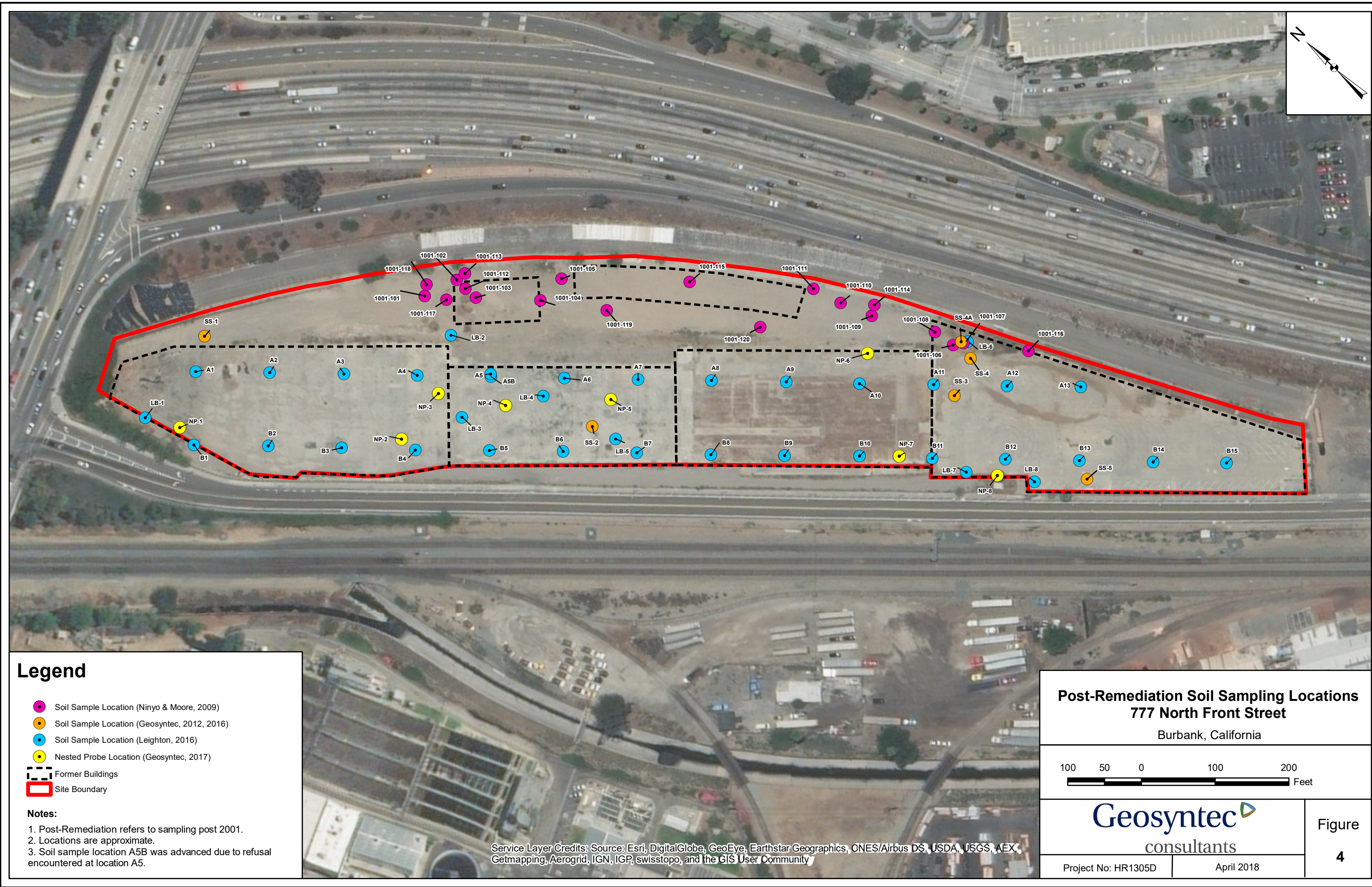
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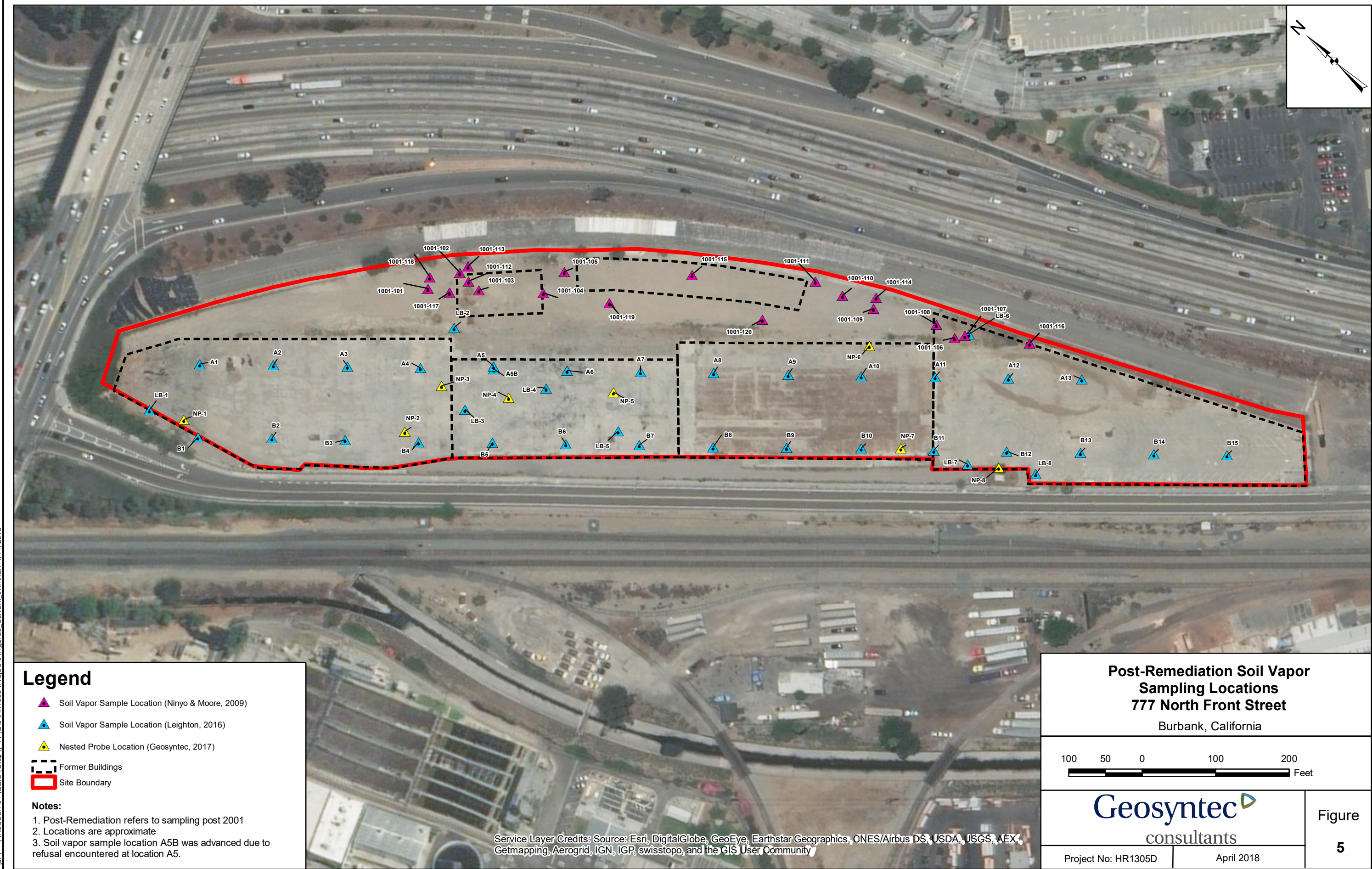
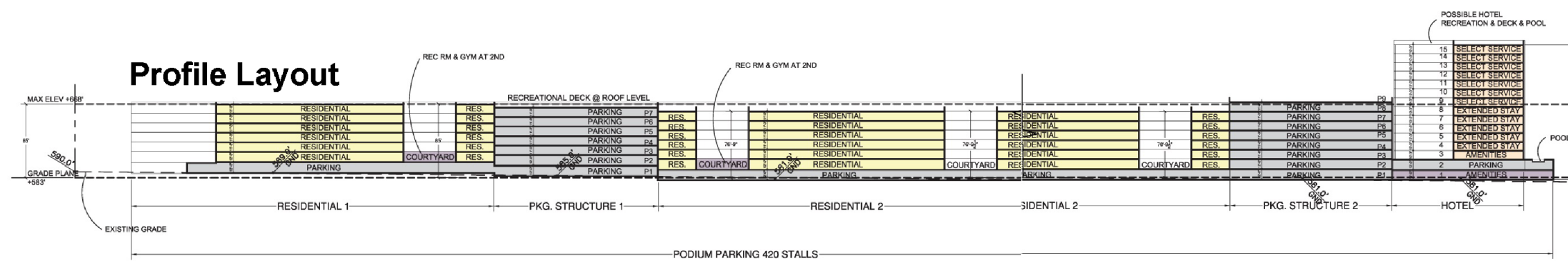
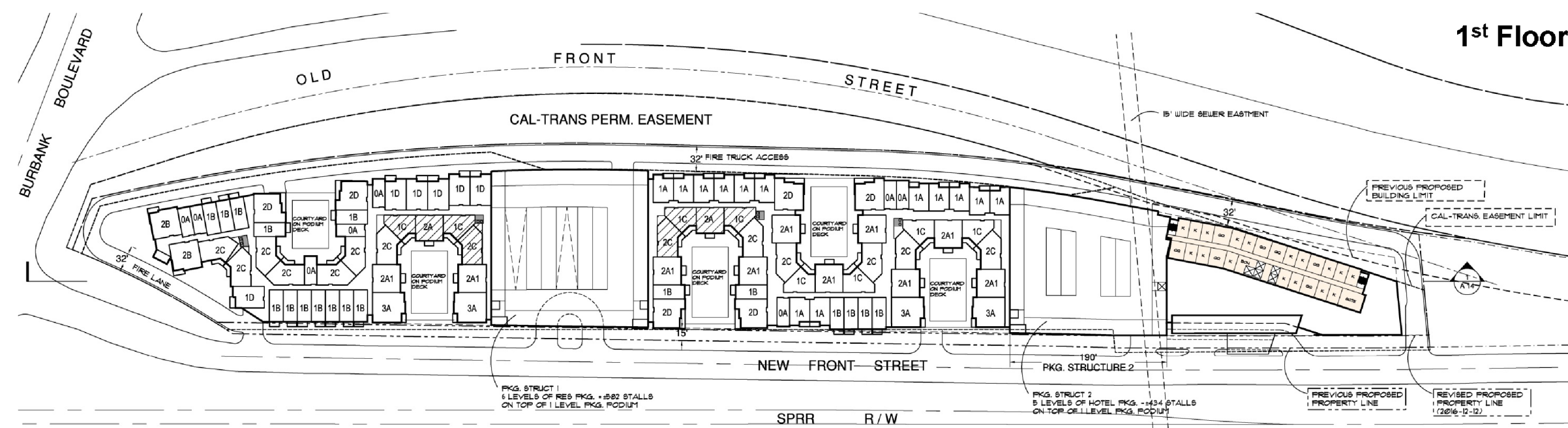
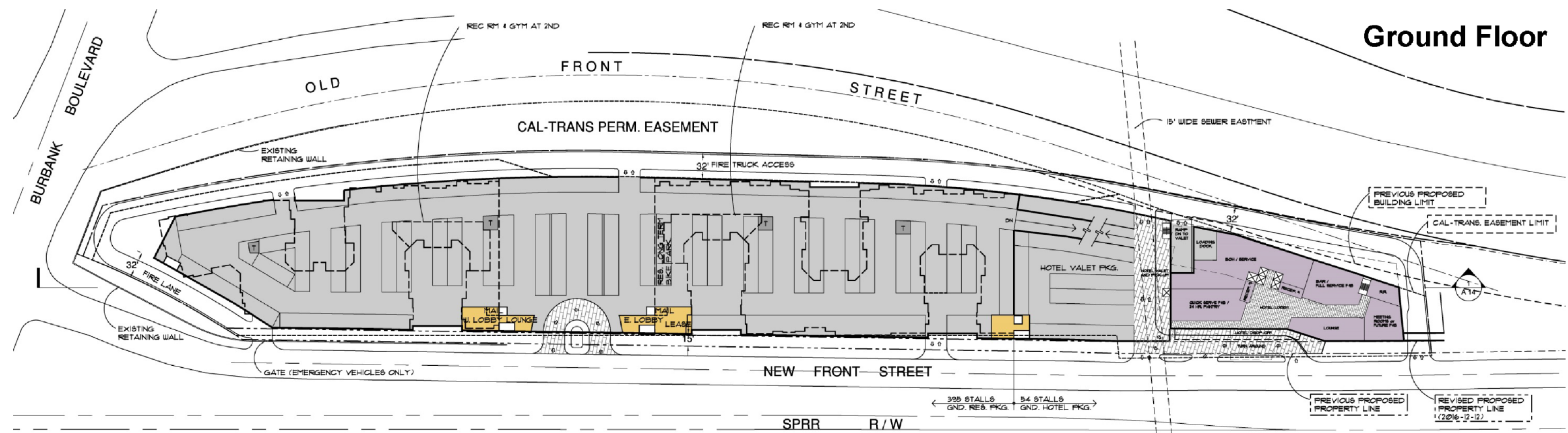
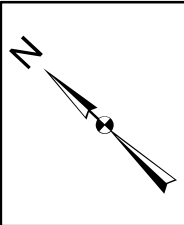


Figure
5

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Redevelopment Plan
777 North Front Street
Burbank, California

Geosyntec

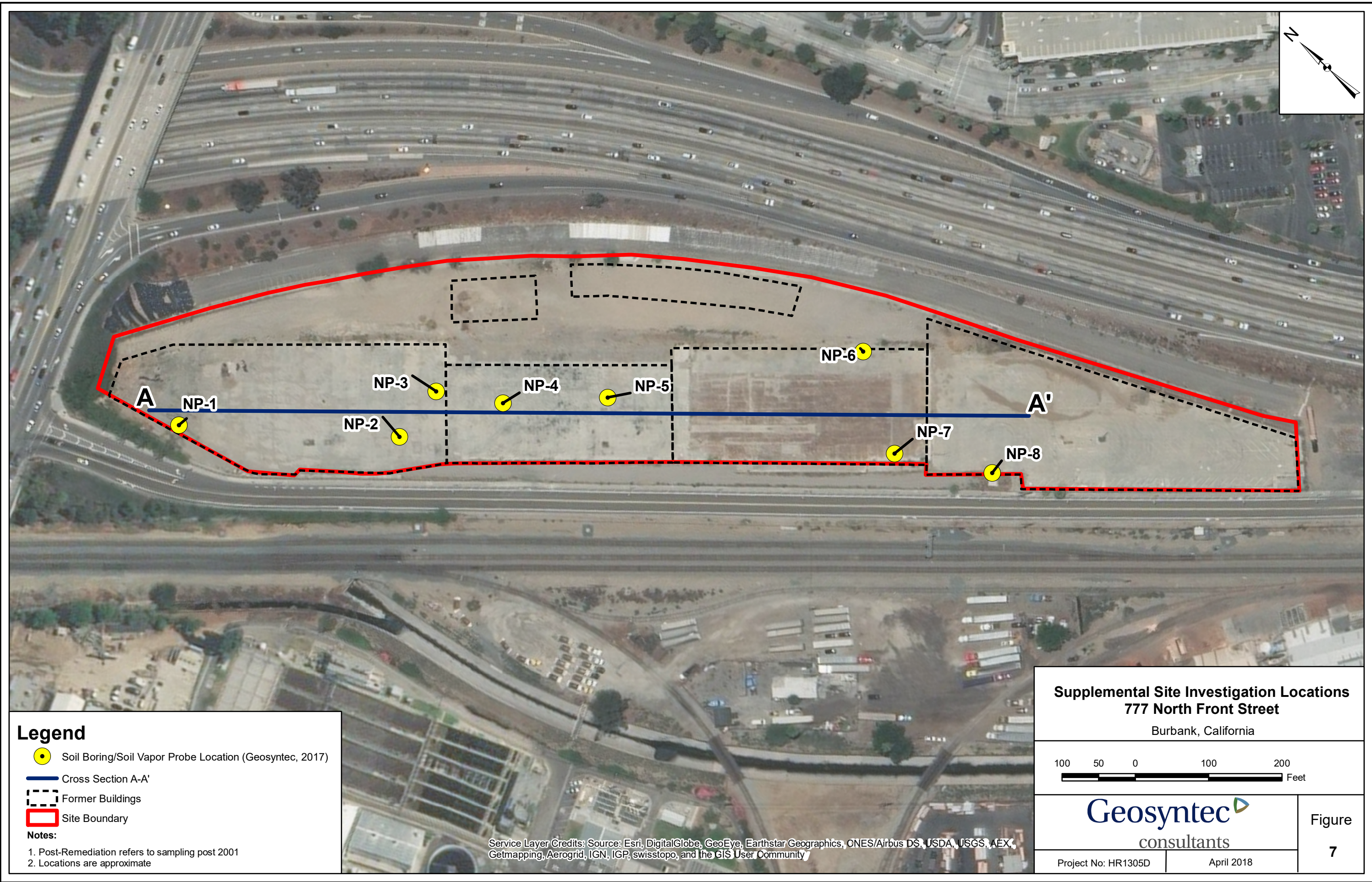
consultants

Project No: HR1305D

April 2018

Figure
6

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Legend

- Soil Boring/Soil Vapor Probe Location (Geosyntec, 2017)
- Cross Section A-A'
- - - Former Buildings
- ▭ Site Boundary

Notes:
1. Post-Remediation refers to sampling post 2001
2. Locations are approximate

Supplemental Site Investigation Locations
777 North Front Street
Burbank, California

100 50 0 100 200
Feet

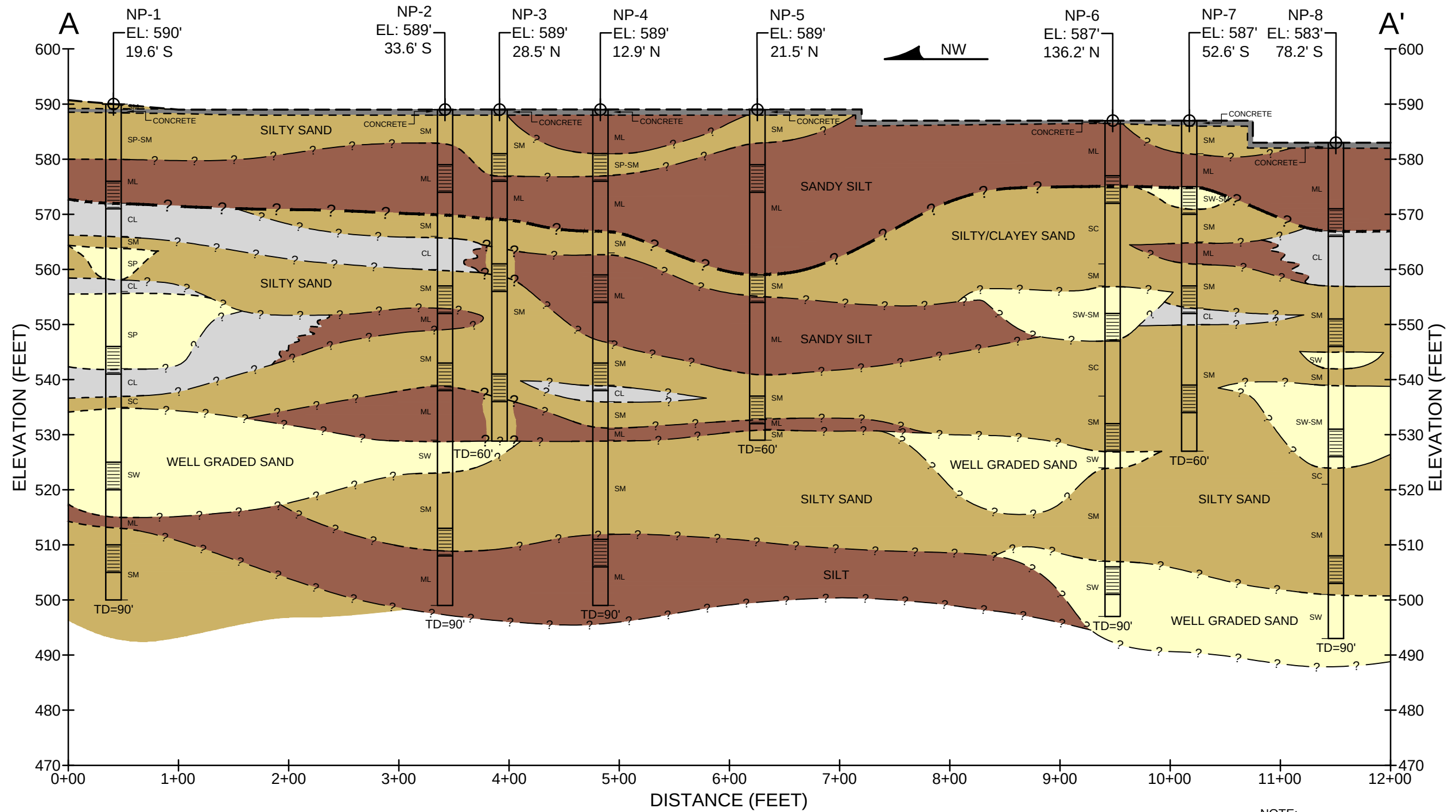
Geosyntec
consultants

Project No: HR1305D April 2018

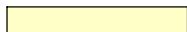
Figure
7

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

N:\CACADD\N\NORTHBRIDGE PROPERTIES\NORTHBRIDGE PROPERTIES - HR1305\FIGURES\1305F002



LEGEND

-  PROJECTED LOCATION OF BORING
-  CONCRETE
-  WELL GRADED SANDS (SW) AND POORLY GRADED SANDS (SP)
-  SILTY SANDS (SM) AND CLAYEY SANDS (SC)
-  SILTS AND SANDY SILTS (ML)
-  CLAYS AND SANDY CLAY (CL)
-  PROBE SCREEN

NOTE:

- SUBSURFACE CONDITIONS VARY AWAY FROM BORING LOCATIONS AND WITH PASSAGE OF TIME.
- CROSS SECTION A-A' SHOWN IN PLAN VIEW IN FIGURE 7.

0 100
HORIZONTAL SCALE

0 20
VERTICAL SCALE

STRATIGRAPHIC CROSS SECTION A-A'
777 N. FRONT STREET
BURBANK, CALIFORNIA

Geosyntec
consultants

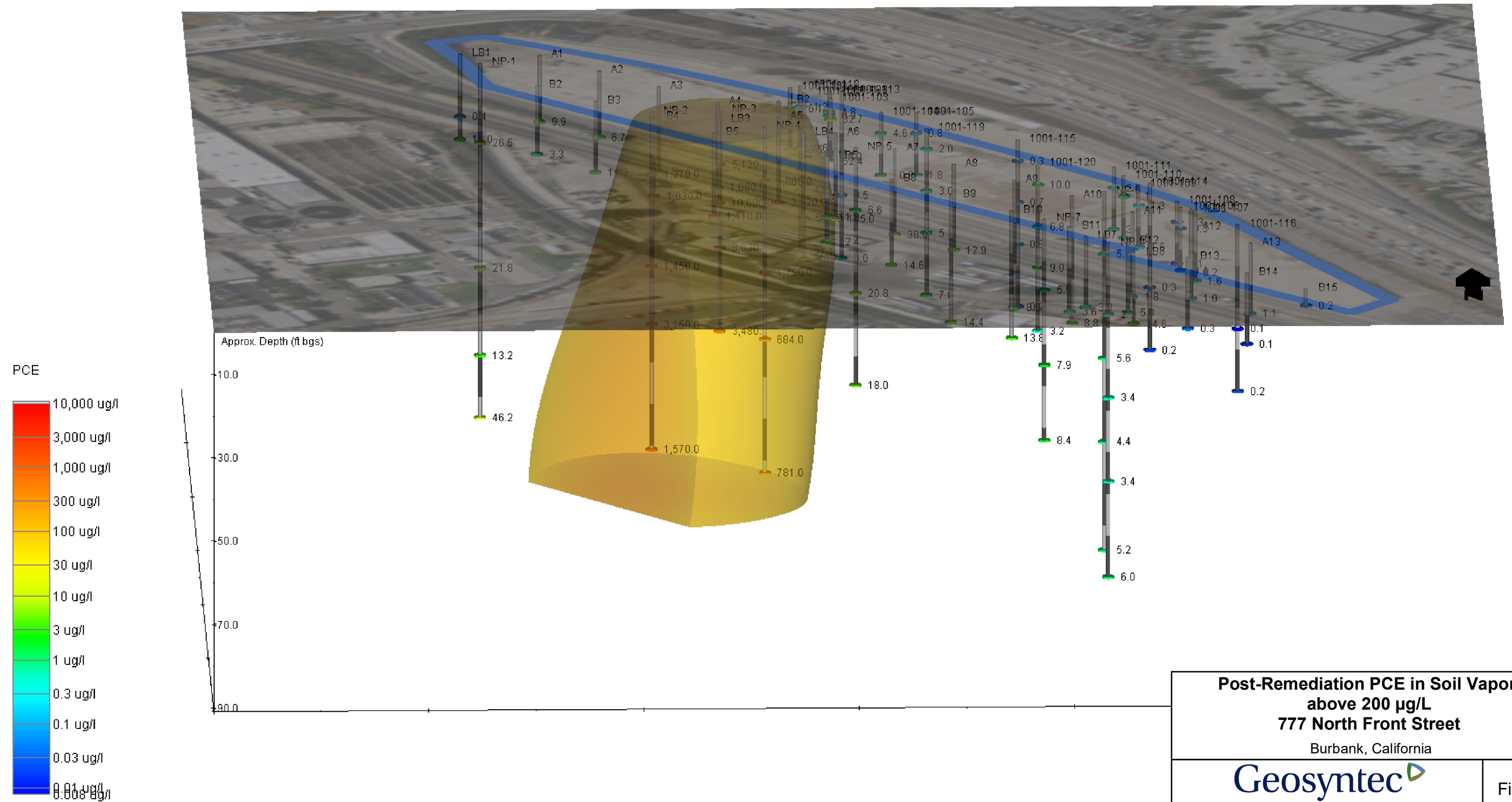
PROJECT NO: HR1305D

APRIL 2018

FIGURE

8

(S:_ = \\hbeach-01\data\GIS\Projects\HR1305\Projects\Figure8_PCE_Plume.mxd 4/11/2018



**Post-Remediation PCE in Soil Vapor
above 200 µg/L
777 North Front Street
Burbank, California**

Geosyntec
consultants

Project No: HR1305D

April 2018

Figure

9

APPENDICES

APPENDIX A

Boring Logs

KEY SHEET - CLASSIFICATIONS AND SYMBOLS

GS FORM:
KEYW 10/90 10/90

EMPIRICAL CORRELATIONS WITH STANDARD PENETRATION RESISTANCE N VALUES *

	N VALUE * (BLOWS/FT)	CONSISTENCY	UNCONFINED COMPRESSIVE STRENGTH (TONS/SQ FT)		N VALUE * (BLOWS/FT)	RELATIVE DENSITY
FINE GRAINED SOILS	0 - 2	VERY SOFT	<0.25	COARSE GRAINED SOILS	0 - 4	VERY LOOSE
	3 - 4	SOFT	0.25 - 0.50		5 - 10	LOOSE
	5 - 8	FIRM	0.50 - 1.00		11 - 30	MEDIUM DENSE
	9 - 15	STIFF	1.00 - 2.00		31 - 50	DENSE
	16 - 30	VERY STIFF	2.00 - 4.00		>50	VERY DENSE
	31 - 50	HARD	>4.00			
	>50	VERY HARD				

* ASTM D 1586; NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30 INCHES TO DRIVE A 2 IN. O.D., 1.4 IN. I.D. SAMPLER ONE FOOT.

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

MAJOR DIVISIONS			SYMBOLS		DESCRIPTIONS
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		LITTLE OR NO FINES		GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
		APPRECIABLE AMOUNT OF FINES		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS	CLEAN SANDS		SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		LITTLE OR NO FINES		SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES		SM	SILTY SANDS, SAND-SILT MIXTURES
		APPRECIABLE AMOUNT OF FINES		SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS	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
				MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILT
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT
HIGHLY ORGANIC SOILS					
NOTE: DUAL SYMBOLS USED FOR BORDERLINE CLASSIFICATIONS					

NOTE: DUAL SYMBOLS USED FOR BORDERLINE CLASSIFICATIONS

PARTICLE SIZE IDENTIFICATION

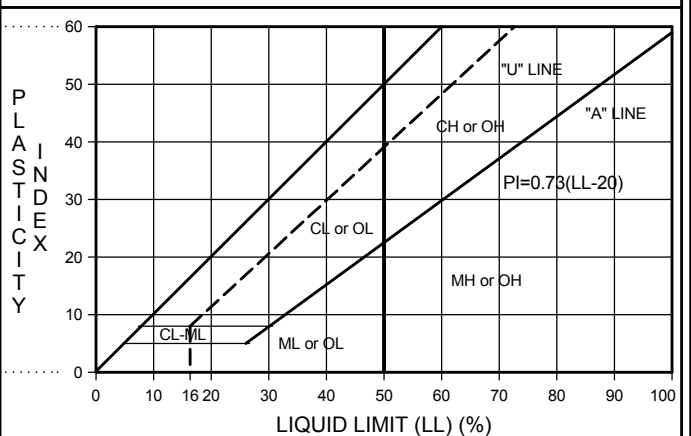
USCS (SOILS ONLY) *		SEDIMENTARY (ROCK ONLY)	
BOULDER	>300 mm	BOULDER	>256 mm
COBBLE	75 - 300 mm	COBBLE	64 - 256 mm
GRAVEL: COARSE	20 - 75 mm	PEBBLE	4 - 64 mm
GRAVEL: FINE	4.75 - 20 mm	GRANULE	2 - 4 mm
SAND: COARSE	2 - 4.75 mm	SAND: V. COARSE	1 - 2 mm
SAND: MEDIUM	0.42 - 2 mm	SAND: COARSE	0.5 - 1 mm
SAND: FINE	0.074 - 0.42 mm	SAND: MEDIUM	0.25 - 0.5 mm
SILT/CLAY	<0.074 mm	SAND: FINE	0.125 - 0.25 mm
		SAND: V. FINE	0.063 - 0.125 mm
		SILT	0.004 - 0.063 mm
		CLAY	<0.004 mm

* WELL GRADED - HAVING WIDE RANGE OF GRAIN SIZES AND APPRECIABLE AMOUNTS OF ALL INTERMEDIATE PARTICLE SIZES

* POORLY GRADED - PREDOMINANTLY ONE GRAIN SIZE, OR HAVING A RANGE OF SIZES WITH SOME INTERMEDIATE SIZES MISSING

PERCENTAGE OF PARTICLE TYPE IN DECREASING ORDER OF PARTICLE SIZE (GRAVEL, SAND, FINES)

PLASTICITY CHART



OTHER MATERIAL SYMBOLS

Siltstone	Sand
Sandstone	Silt
Siltstone/Claystone	Silty Sand to Sand with Silt
Claystone	Landslide Debris
Shale	Artificial Fill
Siltstone/Sandstone	Refuse
Conglomerate	
Granite	

WELL SYMBOLS

BENTONITE SEAL
GROUT
FILTER PACK
SAND PACK
NATIVE/SLUFF
CONCRETE
CENTRAL-IZER

SAMPLER AND OTHER SYMBOLS

BULK SAMPLE	VANE SHEAR TEST
WASH SAMPLE	Water Level at Time Drilling, or as Shown
STANDARD PENETRATION TEST	Water Level After 24 Hours, or as Shown
SHELBY TUBE	Loss Drilling Fluid
SHELBY TUBE, NO RECOVERY	PP Pocket Penetrometer
PISTON SAMPLE	TV Torvane
PISTON SAMPLE, NO RECOVERY	PID Photolonization Detector
ROCK CORE	CGI Combustion Gas Indicator
	ppm Parts Per Million

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	Silty Sand with Gravel (SM); pale brownish grey; dry; fine sand; loose.										08:30	10/09/17 - Begin concrete coring/ hand augering
	Concrete ~5"											
	Poorly Graded Sand with Silt (SP-SM); strong brown; slightly moist; fine sand; (5, 85, 10).											Cobbles - hard to hand auger
5											09:05	Begin drilling
										0.1		
										0.4		
10	Silt (ML); strong brown; moist; trace fine sand; (0, 5, 95); low plasticity.									0.4		
						NP-1-12				1	09:20	
										0.6		
15	Sandy Silt (ML); strong brown; moist; fine sand; (0, 30, 70); low plasticity.									0		
										1.6		
20	Lean Clay with Sand (CL); strong brown; moist; fine sand; (0, 15, 85); medium plasticity.									0		
						NP-1-22				4.2	09:40	
										1.3		
25	Silty Sand (SM); brown; moist; fine sand; (0, 60, 40).									0.4		
										1.4		
	Poorly Graded Sand (SP); pale brown; moist; fine grained; (0, 95, 5).											
30												

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	Poorly Graded Sand (SP); same as above.									0.4		
	Lean Clay with Sand (CL); brown; moist; fine to medium sand; (0, 35, 65); low plasticity.									0.4		
35	Poorly Graded Sand (SP); pale brown to pale grey; moist; fine grained; (0, 95, 5).									0.2		
										0.8		
										2.6		
40										5.4		
										2.4		
45	@45' - Color change to brown.									4.2		
	Clay (CL); brown; moist; with fine sand; (0, 5, 95); medium plasticity.									8.6		
50	Lean Clay with Sand (CL); brown; moist; fine sand; (0, 30, 70).					NP-1-50	☒			26.1	10:15	Core material hot to the touch @50' - Telescope to 6" diameter core barrel
										10.1		
	Clayey Sand (SC); brown; moist; fine grained; (0, 60, 40).									3.4		
55	Well Graded Sand (SW); pale orange brown to pale grey; moist; fine to medium sand; trace fine gravel to cobbles; (5, 95, 0).									4		
60												

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring		
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)	
	Well Graded Sand (SW); same as above.										7.5		
	@62' - ~1 ft thick clayey sand (SC) layer; (0, 70, 30).										4.8		
	Well Graded Sand (SW); pale orange brown to pale grey; moist; fine to medium sand; trace fine gravel to cobbles; (5, 95, 0).										4.5		
65													
							NP-1-67	☒			15.3	10:45	
70											2.4		Core material hot to the touch
											9.2		
75	Sandy Silt (ML); pale greyish brown; moist; fine to coarse sand; (5; 30; 65).										3.5		
	Silty Sand (SM); strong brown; moist; fine to coarse sand; (5, 60, 35).										1.8		
80											2.6		@80' - Telescope to 4.5" diameter core barrel
											2.3		
85											1.5		
							NP-1-88	☒			3	11:40	
90	Total Depth = 90 ft bgs			Groundwater not encountered								11:45	10/09/17 - Terminate boring

Groundwater not encountered

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS



2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

BORING
START DRILL DATE Oct 9, 17
FINISH DRILL DATE Oct 10, 17
LOCATION Burbank, CA
PROJECT 777 N. Front St.
NUMBER HR1305D-01

NP-2

SHEET 1 OF 3

ELEVATION DATA:

GROUND SURF. (Ft)

TOP OF CASING (Ft)

DATUM

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	Concrete, ~12"										15:45	10/09/17 - Begin concrete coring / hand augering
	Silty Sand (SM); brown; moist; fine sand; (0, 85, 15).											
5												
	Sandy Silt (ML); brown; moist; fine sand; (0, 30, 70); low plasticity.					NP-2-6				13.1		Begin drilling
										26.7	16:25	
										0.3		
10										8.4		
										8.2		
15										12.3		
										15.9		
20	Silty Sand (SM); brown; moist; fine sand; (0, 75, 25).									5.6		
										5.7		
	Lean Clay with Sand (CL); brown; moist; fine sand; (0, 35, 65); low plasticity.									1.3		
25												
								</				

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
35	Silty Sand (SM); pale grey to pale brown; dry to slightly moist; fine sand; trace fine gravel; (5, 70, 25).					NP-2-36				9.6		End for the day 10/10/17 - Resume drilling. Telescope to 6" OD core barrel
					1							
					2.8							
	Silt (ML); pale brownish grey; moist; trace fine sand; (0, 5, 95), low plasticity.				19.2					17:00		
					2.8							
40	Well Graded Sand (SW); pale brownish grey; dry to slightly moist; (0, 95, 5).									17:05		
										07:55		
45										11.1		
										10.7		
										29.3		
50	Silt (ML); strong brown; moist; trace fine sand; (0, 5, 95); medium plasticity.					NP-2-50				14.5	08:25	
					10.2							
55	Sandy Silt (ML); pale olive brown to strong brown; moist; fine sand; (0, 30, 70); low plasticity.				12							
					15.5							
60												

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
65	Well Graded Sand with Gravel (SW); pale grey to pale orange brown; moist; fine sand to cobbles; trace silt; (30, 65, 5); rounded to subangular plutonic rock clasts.									2.9		
										12.7		
	Silty Sand (SM); pale olive brown to orange brown; dry to slightly moist; fine to coarse sand; little fine gravel; (10, 60, 30).									12.7		
70										2.4		
										9.5		
										8.4		
75										8.9		
80	Silt (ML); olive brown; slightly moist; with fine sand; (0, 10, 90); low plasticity.					NP-2-80	⊗			5.6	09:55	Telescope to 4.5" core barrel
										1.2		
85	Sandy Silt with Gravel (ML); pale grey; slightly moist; fine to coarse sand; fine to coarse gravel; (15, 35, 50).									1.1		
										2.3		
90	Total Depth = 90 ft bgs			Groundwater not encountered							10:00	10/09/17 - Terminate boring

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	Concrete, ~12"											Begin coring and hand-augering.
	Silty Sand with Gravel (SM); brown; slightly moist; fine-grained sand; (20, 50, 30); cobbles.									13:45		
5												
10												
	Sandy Silt (ML); brown; moist; fine sand, trace gravel; (5, 35, 60).					NP-3-12				2.3	14:20	
15										32.1		
	Silt (ML); brown; moist; fine-grained; (0, 10, 90); low plasticity.					NP-3-16				12.9	15:25	
20										33.9		
	Silty Sand (SM); brown; slightly moist; fine grained, trace gravel; (0, 80, 20); conglomerate pieces.									11.6		
										14.9		
25										1.7		
	Silty Sand (SM); brown; slightly moist; fine grained (0, 60, 40).									4		
	Silty Sand (SM); trace gravel; (5, 65, 30).									10.8		
30												

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6" OD
LOGGER D. Dowd

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS



2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

BORING NP-3
START DRILL DATE Oct 10, 17
FINISH DRILL DATE Oct 10, 17
LOCATION Burbank, CA
PROJECT 777 N. Front St.
NUMBER HR1305D-01

SHEET 2 OF 2
ELEVATION DATA:
GROUND SURF. (Ft)
TOP OF CASING (Ft)
DATUM

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
35	Silty Sand with Gravel (SM); brown; slightly moist; fine grained; (20, 50, 30).					NP-3-32	☒			14.7 9 15:30 20.5 7.3		
40	Silty Sand (SM); brown; slightly moist; fine grained; (10, 60, 30); loose.									14.2 16.5 29.6		
45	Silty Sand with Gravel (SM); brown; slightly moist; fine grained; (20, 60, 20); loose; with some cobbles.					NP-3-46	☒			12.2 15:40 15.6 0.8 1.3		
55	Silty Sand with Gravel (SM); light brown; slightly moist; fine grained; (20, 60, 20); with some cobbles.									4.3 5.3		
60	Silty Sand with Gravel (SM); brown; slightly moist; fine-grained (20, 50, 30); with some cobbles.											
	Total Depth = 60 ft bgs.			Groundwater not encountered.							15:45	Terminate boring.

Groundwater not encountered.

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6" OD
LOGGER D. Dowd

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS



2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

BORING NP-4
START DRILL DATE Oct 11, 17
FINISH DRILL DATE Oct 11, 17
LOCATION Burbank, CA
PROJECT 777 N. Front St.
NUMBER HR1305D-01

SHEET 1 OF 3
ELEVATION DATA:
GROUND SURF. (Ft)
TOP OF CASING (Ft)
DATUM

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	Concrete ~12" thick										08:20	10/11/2017 - Begin coring concrete and hand augering
	Sandy Silt (ML); reddish brown; moist; fine sand; (0; 30; 70); medium plasticity.											
5												
	Poorly Graded Sand with Silt and Gravel (SP-SM); brown; moist; fine sand; coarse gravel to cobbles; (25; 65; 10).										13 08:35	Begin drilling
10												
	Sandy Silt (ML); strong brown; moist; fine sand; trace medium gravel; (5, 25, 70); low plasticity.										6.9	Small quartzite boulder (~6" x 8")
											45.9 09:05	
15											21.9	
	Silt (ML); brown; moist; little fine sand; (0, 10, 90); low plasticity.										31.5	
											5.8	
20											13.2 09:35	
	Silty Sand (SM); pale brown; moist; fine sand; trace fine to medium gravel; (5, 55, 40).										15.9	
											4.6	
25											14.2	
	Silt (ML); pale yellowish brown; moist; trace fine sand; (0, 5, 95); low plasticity.										8.8	
											1.3	
30												

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
35	Silt (ML); pale yellowish brown; moist; trace fine sand; (0, 5, 95); low plasticity.									3.9		
										5.3		
										6.4		
	Silt (ML); strong brown; moist; trace fine sand; (0, 5, 95); medium plasticity.									3.4		
40										8		
						NP-4-40	☒			15.6	09:50	Telescope to 6" core barrel
	Silty Sand (SM); pale grey to pale orange brown; moist; fine to coarse sand; trace fine gravel; (5, 60, 35).									24		
45										14.2		
										10.8		
50	Sandy Clay (CL); pale brown; moist; fine sand; (0, 30, 70); low plasticity.									9.3		
										9.4		
55	Silty Sand (SM); pale grey to pale reddish brown; moist; fine to medium sand; few fine gravel to cobbles; (10, 55, 35).									24.3		
60	Sandy Silt (ML); pale orange brown; moist; fine sand; (0, 35, 65); low plasticity.									5.6	10:45	

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/6"/4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

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GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	Silty Sand (SM); pale grey to pale orange brown; moist; fine sand; trace fine to medium gravel; (5, 65, 30).									5.2		Telescope to 4.5" core barrel
										21.1		
65										10.5		
										21		
70										4		
										0.8		
75										4.6		
	Silt (ML); orange brown to olive brown; moist; trace fine sand; (0, 5, 95); low plasticity.									0.6		
80						NP-4-80	☒			3.9	11:10	
										2		
85										0.8		
	@87' - fine to coarse gravel in silt matrix									3.1		
90	Total Depth = 90 ft bgs			Groundwater not encountered							11:15	10/11/2017 - Terminate boring

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/6"/4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS



2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

BORING NP-5
START DRILL DATE Oct 11, 17
FINISH DRILL DATE Oct 11, 17
LOCATION Burbank, CA
PROJECT 777 N. Front St.
NUMBER HR1305D-01

SHEET 1 OF 2
ELEVATION DATA:
GROUND SURF. (Ft)
TOP OF CASING (Ft)
DATUM

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring		
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)	
	Concrete ~12"										15:20	10/11/17 - Begin hand augering	
	Silty Sand (SM); orange brown to dark brown; moist; fine sand; trace fine to medium gravel; (5, 60, 35).												
5											0	15:40	Begin drilling
	Sandy Silt (ML); brown to olive brown; moist; fine sand; (0, 40, 60); low plasticity.										0		
10											0		
	@10' - gravel and cobbles in sandy silt matrix; (10, 35, 55)										0		
											0		
15											0		
											0.5		
						NP-5-18					0.4	16:05	
20											0.6		
											0		
25											0		
											0		
30											0		

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

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BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	Silty Sand (SM); pale olive brown; dry to slightly moist; fine to medium sand; few fine to medium gravel; (10, 75, 15).									0		
35	Sandy Silt (ML); brown; dry to slightly moist; fine sand; trace fine gravel; (5, 40, 55); low plasticity.					NP-5-36	☒			1.2		
										5.7	16:30	
40	@39' - hard sandstone boulder or layer approximately 6" to 12" thick									1.6		
										4		Hard drilling
45	Silt (ML); orange brown; moist; few fine sand; (0, 10, 90); low plasticity.					NP-5-45	☒			8.1	16:50	
										6.5		
50	Silty Sand (SM); brown; dry to slightly moist; fine sand; trace fine gravel; (5, 60, 35).									6.7		Telescope to 6" OD core barrel
										1		
55												
	Silt (ML); pale orange brown; moist; trace fine sand; (0, 5, 95); low plasticity.					NP-5-56	☒			0.8	17:00	
60	Silty Sand (SM); brown; moist; fine sand; few fine to medium gravel; (10, 75, 15).											
	Total Depth = 60 ft bgs			Groundwater not encountered							17:05	10/11/17 - Terminate boring

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/6" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS



2100 Main St
Suite 150
Huntington Beach, CA 92648
Tel: (714) 969-0800
Fax: (714) 969-0820

BORING
START DRILL DATE Oct 13, 17
FINISH DRILL DATE Oct 13, 17
LOCATION Burbank, CA
PROJECT 777 N. Front St.
NUMBER HR1305D-01

NP-6

SHEET 1 OF 3

ELEVATION DATA:

GROUND SURF. (Ft)

TOP OF CASING (Ft)

DATUM

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	Concrete ~6"										07:50	10/13/17 - Begin hand augering
5	Sandy Silt (ML); olive brown; slightly moist; fine sand; trace fine gravel; (5, 30, 65); low plasticity.										0.3 08:00	Begin drilling
											1.1	
											0.7	
10											0.7	
											1.1	
	Clayey Sand (SC); olive brown; moist; fine sand; (0, 70, 30).										1.1	
15											3.5 08:20	
						NP-6-16					2.1	
20											2	
											0.6	
25											0.3	
	Silty Sand (SM); olive brown; moist; fine to coarse sand; trace medium gravel; (5, 80, 15).										1.6 08:25	
30											1.7	

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/6"/4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

07-WELL BORE HR1305D - SV PROBES.GPJ GEOSYNTEC.GDT 10/25/17

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring		
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)	
35	Well Graded Sand with Silt and Gravel (SW-SM); pale greyish brown; dry to slightly moist; fine to coarse gravel; (15, 70, 10).										2.1		
											1.3		
											0.7		
											0.6		
											0.3		
40	Clayey Sand (SC); brown; moist; fine sand; trace fine gravel; (5, 70, 25).					NP-6-40	☒				7.6	09:05	Telescope to 6" core barrel
											6		
45											7.7		
											9.4		
50	Silty Sand with Gravel (SM); pale brownish grey; dry to slightly moist; fine sand; fine to coarse gravel and cobbles; (15, 65, 20).										5		
											9.1		
55						NP-6-55	☒				11	09:55	
											6.9		
60													

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/6"/4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE						COMMENTS 1) Rig Behavior 2) Air Monitoring
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)	TIME (00:00)	
	Well Graded Sand with Gravel (SW); brown; moist; fine to coarse gravel; trace silt; (15; 80; 5).									4.7		
65	Silty Sand (SM); pale pinkish grey to pale brown; dry to slightly moist; fine to coarse sand; few fine to medium gravel; (10, 70, 20).									9.5		
										3.7		
										4.6		
70										5		
										5		
75	Silty Sand (SM); pale orange brown; moist; fine sand; trace fine gravel; (5, 75, 20).									4		Telescope to 4.5" core barrel
										4.5		
80	Well Graded Sand (SW); brown; moist; few fine gravel; trace silt; (10, 85, 5).									3.4		
										5.7		
85										4.5		
										4.3	10:30	
90	Total Depth = 90 ft bgs			Groundwater not encountered		NP-6-88						10/13/16 - Terminate boring

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, Discoloration, Odor, etc.) 5) Percent Grain Size	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring		
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)	
	Concrete ~12"										15:20	10/12/17 - Begin hand augering	
	Silty Sand (SM); strong brown; moist; fine sand; trace fine gravel; (5, 60, 35).												
5											2.1	15:35	Begin drilling
	Sandy Silt (ML); strong brown; moist; fine sand; (0, 40, 60); low plasticity.										1.5		
											0.9		
10											0.3		
	Well Graded Sand with Silt (SW-SM); pale brown; slightly moist; trace fine gravel; (5, 85, 10).										0.3		
											0.1		
15											0.4		
	Silty Sand (SM); brown; moist; fine sand; (0, 60, 40).										1.3		
											8.3		
20													
	Sandy Silt (ML); brown; moist; fine sand; (0, 25, 75); low plasticity.					NP-7-22					6.3	16:15	
25											6.5		
	Silty Sand (SM); pale brown; slightly moist; fine to medium sand; few fine gravel; (10, 75, 15).										5		
30													

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/6" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
										7		Telescope to 6" core barrel
										5		
35	@32' - Coarsening sand and gravel Sandy Clay (CL); strong brown; moist; fine sand; (0, 40, 60); medium plasticity.					NP-7-34	☒			9.4	16:35	
	Silty Sand (SM); olive brown; moist; fine sand; (0, 65, 35).									5.3		
40	Silty Sand (SM); pale greyish brown; dry to slightly moist; fine to coarse sand; fine to coarse gravel; (10, 75, 15).									6.8		
										3.9		
45										3.4		
	Silty Sand (SM); brown; moist; fine sand; trace fine gravel; (5, 60, 35).									8.6		
50						NP-7-49	☒			7.7	17:05	
	Silty Sand (SM); pale greyish brown; dry to slightly moist; fine to coarse sand; few fine to coarse gravel; (10, 75, 15).									3.2		
										2.4		
55										2.2		
60	Total Depth = 60 ft bgs			Groundwater not encountered							17:15	10/12/17 - Terminate boring

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/6" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:

REVIEWER S. Siciliano, P.G., C.E.G.

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, 5) Percent Grain Size Discoloration, Odor, etc.)	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	Concrete ~12".											
	Sandy Silt with Gravel (ML); brown; slightly moist; fine sand and fines, fine to medium gravel (15, 30, 55).										08:20	Begin coring and hand-augering.
5	Sandy Silt (ML); brown; moist; fine sand and fines; (0, 30, 70).									0.4	08:38	Start drilling.
										0		
	At 8', metal and rubber fragments.									0		
10	Sandy Silt with Gravel (ML); brown; slightly moist; fine sand and fines, fine to medium gravel; (15, 30, 55); cobbles.									0		
	Sandy Silt (ML); brown; slightly moist; fine sand; (0, 30, 70).									0.6		
										0.4		
15										1		
	Clay with Silt, trace Sand (CL); brown; slightly moist; (0, 5, 95); low plasticity.									1.3		
20										1.3		
	Silty Clay (CL-ML); brown; slightly moist; low plasticity.									0		
25						NP-8-24				0	09:50	
	Silty Sand with Gravel (SM); light brown; slightly moist; well-graded sand; (10, 65, 25).									2.5		
										1.1		
30												

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER D. Dowd

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, Discoloration, Odor, etc.) 5) Percent Grain Size	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
35	At 32', the percentage distribution changes to (10, 75, 15). Well-Graded Sand (SW); light brown; dry.									1.9		
40	No recovery.									3.6		
45	Silty Sand (SM); brown; slightly moist; (0, 80, 20); trace cobbles. Well Graded Sand with Silt, trace Gravel (SW-SM); light brown; dry; (10, 75, 15).					NP-8-42	☒			5		
50	At 50', percentage of gravel increased; (20, 70, 10).									5.8		
55										8.3	10:05	
60	Clay and Clayey Sand (CL/SC); olive brown; moist; poorly-graded sand; low plasticity;					NP-8-59	☒			14.7		
										13		
										24.5		
										9.8		
										23.7		
										14.1		
										21.1	10:40	
												7.75" core barrel telescope from 50' bgs.

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/ 6"/ 4.5" OD
LOGGER D. Dowd

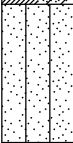
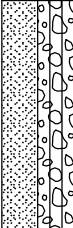
NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

GS FORM:
WELL BORE 01/04

BOREHOLE LOG

DEPTH (ft-bgs)	DESCRIPTION 1) Unit/Formation, Mem.6) Plasticity 2) USCS Name 7) Density/Consistency 3) Color 8) Structure 4) Moisture 9) Other (Mineralization, Discoloration, Odor, etc.) 5) Percent Grain Size	GRAPHIC LOG	WELL LOG	GROUNDWATER OR STRUCTURE	ELEVATION (ft)	SAMPLE					COMMENTS 1) Rig Behavior 2) Air Monitoring	
						SAMPLE NO.	TYPE	BLOW COUNT	RECOVERY (%)	PID/FID (ppm)		TIME (00:00)
	dense.											
	Silty Sand (SM); brown; slightly moist; (0, 60, 40).									18.5		
65	Well Graded Sand to Silty Gravel (SW/GM); light brown; dry; (20, 60, 20).									14		
										21.9		
70	Silty Sand (SM); brown; moist; fine-grained; (0, 70, 30).									11		
										9.7		
75										11.1		
										10.2		
80	At 80', 12" clay layer.									9.3		
										11:45		Telescope to 4.5" barrel.
	Well Graded Sand with Gravel (SW); light brown; slightly moist; (20, 80, 0).									2.3		
85										2		
										0.6		
90	Total Depth = 90 ft bgs.			Groundwater not encountered.								

Groundwater not encountered.

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75"/6"/4.5" OD
LOGGER D. Dowd

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

NOTES: Soil samples were collected using USEPA SW-846 Method 5035 compliant Terra Core™ samplers.

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

APPENDIX B

Soil Vapor Probe Construction

WELL CONSTRUCTION LOG

DEPTH (ft-bgs)	COMMENTS	GRAPHIC LOG	WELL MATERIAL DEPTH (ft-bgs)	BELOW GROUND SURFACE COMPLETION:
	1) Groundwater ELEVATION 2) Surge Time 3) Dedicated Pump (ft MSL)			SURFACE COMPLETION: FLUSH-MOUNT PROTECTIVE COVER TYPE Monument LOCKING WELL CAP WELL CASING DEPTH 2'7"
5	Note: The top 1 ft of each bentonite seal is constructed of Cetco #8 bentonite crumbles, the rest of Wyoben medium bentonite chips.		2.0	BORING DEPTH 90' bgs PILOT BORING DIAMETER 4.5" REAM BORING DIAMETER 7.75"
10			13.0	WELL CONSTRUCTION WELL CONSTRUCTION DATE 10/09/2017 WELL DEPTH 85' bgs WELL CASING DIAMETER 3/4" WELL CASING MATERIAL PVC SCREEN SLOT SIZE/DIRECTION 0.020" Horizontal TOP OF SCREEN 14' / 44' / 65' / 80' bgs BOTTOM OF SCREEN 19' / 49' / 70' / 85' bgs END CAP/SUMP LENGTH 2"
15	Screen 1		14.0	GROUT TOP DEPTH N/A TYPE/BRAND N/A QUANTITY USED N/A VOLUME FLUID USED N/A PLACEMENT METHOD N/A
20			19.0	BENTONITE SEAL TOP DEPTH 2' / 20' / 50' / 71' bgs TYPE/BRAND Wyoben Eviroplug Chips/ Cetco #8 Crumbles QUANTITY USED 150 / 550 / 150 / 50 lbs. VOLUME FLUID USED ~10 gal per seal SET-UP TIME ~15 mins per seal PLACEMENT METHOD Tremie
25			20.0	TRANSITION SAND TOP DEPTH N/A TYPE/BRAND N/A QUANTITY USED N/A PLACEMENT METHOD N/A
30			43.0	SAND/GRAVEL PACK TOP DEPTH 13' / 43' / 64' / 79' bgs TYPE/BRAND Cemex Lapis Lustre #3 QUANTITY USED 300 / 150 / 100 / 150 lbs. PLACEMENT METHOD Tremie
35			44.0	BOTTOM FILL TOP DEPTH N/A TYPE/BRAND N/A QUANTITY USED N/A PLACEMENT METHOD N/A
40			49.0	
45	Screen 2		50.0	
50			64.0	
55			65.0	
60			70.0	
65	Screen 3		71.0	
70			79.0	
75			80.0	
80	Screen 4		85.0	
85			90.0	
90				
95				
100				

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75" / 6" / 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

DEDICATED PUMP SYSTEM:
TYPE/BRAND:
MODEL:
CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

WELL CONSTRUCTION LOG

DEPTH (ft-bgs)	COMMENTS	GRAPHIC LOG	WELL MATERIAL DEPTH (ft-bgs)	BELOW GROUND SURFACE COMPLETION:	
				SURFACE COMPLETION:	
	1) Groundwater 2) Surge Time 3) Dedicated Pump			FLUSH-MOUNT PROTECTIVE COVER LOCKING WELL CAP	TYPE Monument WELL CASING DEPTH 2'9"
	Note: The top 1 ft of each bentonite seal is constructed of Cetco #8 bentonite crumbles, the rest of Wyoben medium bentonite chips.				
5			2.0		BORING DEPTH 90' bgs
10	Screen 1		9.0 10.0		PILOT BORING DIAMETER 4.5"
15			15.0 16.0		REAM BORING DIAMETER 7.75"
20					WELL CONSTRUCTION
25					WELL CONSTRUCTION DATE 10/10/2017
30					WELL DEPTH 81' bgs
35	Screen 2		31.0 32.0		WELL CASING DIAMETER 3/4"
40			37.0 38.0		WELL CASING MATERIAL PVC
45					SCREEN SLOT SIZE/DIRECTION 0.020" Horizontal
50	Screen 3		45.0 46.0		TOP OF SCREEN 10' / 32' / 46' / 76' bgs
55			51.0 52.0		BOTTOM OF SCREEN 15' / 37' / 51' / 81' bgs
60					END CAP/SUMP LENGTH 2"
65					GROUT
70					TOP DEPTH N/A
75					TYPE/BRAND N/A
80	Screen 4		75.0 76.0		QUANTITY USED N/A
85			81.0 82.0		VOLUME FLUID USED N/A
90					PLACEMENT METHOD N/A
95					BENTONITE SEAL
100					TOP DEPTH 2' / 16' / 38' / 52' bgs
					TYPE/BRAND Wyoben Enviropug Chips/ Cetco #8 Crumbles
					QUANTITY USED 200 / 400 / 150 / 350 lbs.
					VOLUME FLUID USED ~10 gal per seal
					SET-UP TIME ~15 mins per seal
					PLACEMENT METHOD Tremie
					TRANSITION SAND
					TOP DEPTH N/A
					TYPE/BRAND N/A
					QUANTITY USED N/A
					PLACEMENT METHOD N/A
					SAND/GRAVEL PACK
					TOP DEPTH 9' / 31' / 45' / 75' bgs
					TYPE/BRAND Cemex Lapis Lustre #3
					QUANTITY USED 350 / 300 / 150 / 150 lbs.
					PLACEMENT METHOD Tremie
					BOTTOM FILL
					TOP DEPTH 82' bgs
					TYPE/BRAND Wyoben Enviropug Medium
					QUANTITY USED 75 lbs.
					PLACEMENT METHOD Tremie

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75" / 6" / 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:

REVIEWER S. Siciliano, P.G., C.E.G.

DEDICATED PUMP SYSTEM:

TYPE/BRAND:
MODEL:
CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

WELL CONSTRUCTION LOG

DEPTH (ft-bgs)	COMMENTS	GRAPHIC LOG	WELL MATERIAL DEPTH (ft-bgs)	BELOW GROUND SURFACE COMPLETION:	
				SURFACE COMPLETION:	
	1) Groundwater 2) Surge Time 3) Dedicated Pump			FLUSH-MOUNT PROTECTIVE COVER LOCKING WELL CAP	TYPE Monument WELL CASING DEPTH 2'5"
5	Note: The top 1 ft of each bentonite seal is constructed of Cetco #8 bentonite crumbles, the rest of Wyoben medium bentonite chips.		2.0		BORING DEPTH 60' bgs
10	Screen 1		7.0		PILOT BORING DIAMETER 6"
15			8.0		REAM BORING DIAMETER 7.75"
20			13.0		WELL CONSTRUCTION
25			14.0		WELL CONSTRUCTION DATE 10/10/2017
30	Screen 2		27.0		WELL DEPTH 53' bgs
35			28.0		WELL CASING DIAMETER 3/4"
40			33.0		WELL CASING MATERIAL PVC
45			34.0		SCREEN SLOT SIZE/DIRECTION 0.020" Horizontal
50	Screen 3		47.0		TOP OF SCREEN 8' / 28' / 48' bgs
55			48.0		BOTTOM OF SCREEN 13' / 33' / 53' bgs
60			53.0		END CAP/SUMP LENGTH 2"
65			60.0		GROUT
70					TOP DEPTH N/A
75					TYPE/BRAND N/A
80					QUANTITY USED N/A
85					VOLUME FLUID USED N/A
90					PLACEMENT METHOD N/A
95					BENTONITE SEAL
100					TOP DEPTH 2' / 14' / 34' bgs
					TYPE/BRAND Wyoben Eviroplug Chips/ Cetco #8 Crumbles
					QUANTITY USED 150 / 300 / 150 lbs.
					VOLUME FLUID USED ~10 gal per seal
					SET-UP TIME ~15 mins per seal
					PLACEMENT METHOD Tremie
					TRANSITION SAND
					TOP DEPTH N/A
					TYPE/BRAND N/A
					QUANTITY USED N/A
					PLACEMENT METHOD N/A
					SAND/GRAVEL PACK
					TOP DEPTH 7' / 27' / 47' bgs
					TYPE/BRAND Cemex Lapis Lustre #3
					QUANTITY USED 300 / 200 / 200 lbs.
					PLACEMENT METHOD Tremie
					BOTTOM FILL
					TOP DEPTH 54' bgs
					TYPE/BRAND Wyoben Enviroplug Medium
					QUANTITY USED 50 lbs.
					PLACEMENT METHOD Tremie

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75" / 6" OD
LOGGER D. Dowd

NORTHING
EASTING
COORDINATE SYSTEM:

REVIEWER S. Siciliano, P.G., C.E.G

DEDICATED PUMP SYSTEM:
TYPE/BRAND:
MODEL:
CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

WELL CONSTRUCTION LOG

DEPTH (ft-bgs)	COMMENTS	GRAPHIC LOG	WELL MATERIAL DEPTH (ft-bgs)	BELOW GROUND SURFACE COMPLETION:	
				SURFACE COMPLETION:	
	1) Groundwater 2) Surge Time 3) Dedicated Pump			TYPE	Monument
	ELEVATION (ft MSL)			WELL CASING DEPTH	3'2"
				FLUSH-MOUNT PROTECTIVE COVER	
				LOCKING WELL CAP	
	Note: The top 1 ft of each bentonite seal is constructed of Cetco #8 bentonite crumbles, the rest of Wyoben medium bentonite chips.			BORING DEPTH	90' bgs
				PILOT BORING DIAMETER	4.5"
				REAM BORING DIAMETER	7.75"
				WELL CONSTRUCTION	
				WELL CONSTRUCTION DATE	10/11/2017
				WELL DEPTH	83' bgs
				WELL CASING DIAMETER	3/4"
				WELL CASING MATERIAL	PVC
				SCREEN SLOT SIZE/DIRECTION	0.020" Horizontal
				TOP OF SCREEN	8' / 30' / 46' / 78' bgs
				BOTTOM OF SCREEN	13' / 35' / 51' / 83' bgs
				END CAP/SUMP LENGTH	2"
				GROUT	
				TOP DEPTH	N/A
				TYPE/BRAND	N/A
				QUANTITY USED	N/A
				VOLUME FLUID USED	N/A
				PLACEMENT METHOD	N/A
				BENTONITE SEAL	
				TOP DEPTH	2' / 14' / 36' / 52' bgs
				TYPE/BRAND	Wyoben Eviroplug Chips/ Cetco #8 Crumbles
				QUANTITY USED	150 / 300 / 150 / 300 lbs.
				VOLUME FLUID USED	~10 gal per seal
				SET-UP TIME	~15 mins per seal
				PLACEMENT METHOD	Tremie
				TRANSITION SAND	
				TOP DEPTH	N/A
				TYPE/BRAND	N/A
				QUANTITY USED	N/A
				PLACEMENT METHOD	N/A
				SAND/GRAVEL PACK	
				TOP DEPTH	7' / 29' / 45' / 77' bgs
				TYPE/BRAND	Cemex Lapis Lustre #3
				QUANTITY USED	250 / 250 / 150 / 75 lbs.
				PLACEMENT METHOD	Tremie
				BOTTOM FILL	
				TOP DEPTH	84' bgs
				TYPE/BRAND	Wyoben Enviroplug Medium
				QUANTITY USED	50 lbs.
				PLACEMENT METHOD	Tremie

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75" / 6" / 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

DEDICATED PUMP SYSTEM:
TYPE/BRAND:
MODEL:
CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

WELL CONSTRUCTION LOG

DEPTH (ft-bgs)	COMMENTS	GRAPHIC LOG	WELL MATERIAL DEPTH (ft-bgs)	BELOW GROUND SURFACE COMPLETION:	
				SURFACE COMPLETION:	
	1) Groundwater ELEVATION 2) Surge Time 3) Dedicated Pump (ft MSL)			FLUSH-MOUNT PROTECTIVE COVER LOCKING WELL CAP	TYPE Monument WELL CASING DEPTH 3'2"
5	Note: The top 1 ft of each bentonite seal is constructed of Cetco #8 bentonite crumbles, the rest of Wyoben medium bentonite chips.		2.0		BORING DEPTH 60' bgs
10	Screen 1		9.0 10.0		PILOT BORING DIAMETER 6"
15			15.0 16.0		REAM BORING DIAMETER 7.75"
20					WELL CONSTRUCTION
25					WELL CONSTRUCTION DATE 10/11/17 - 10/12/17
30	Screen 2		29.0 30.0		WELL DEPTH 57' bgs
35			35.0 36.0		WELL CASING DIAMETER 3/4"
40					WELL CASING MATERIAL PVC
45					SCREEN SLOT SIZE/DIRECTION 0.020" Horizontal
50					TOP OF SCREEN 10' / 30' / 52' bgs
55	Screen 3		51.0 52.0		BOTTOM OF SCREEN 15' / 35' / 57' bgs
60			57.0 58.0 60.0		END CAP/SUMP LENGTH 2"
65					GROUT
70					TOP DEPTH N/A
75					TYPE/BRAND N/A
80					QUANTITY USED N/A
85					VOLUME FLUID USED N/A
90					PLACEMENT METHOD N/A
95					BENTONITE SEAL
100					TOP DEPTH 2' / 16' / 36' bgs
					TYPE/BRAND Wyoben Eviroplug Chips/ Cetco #8 Crumbles
					QUANTITY USED 150 / 300 / 200 lbs.
					VOLUME FLUID USED ~10 gal per seal
					SET-UP TIME ~15 mins per seal
					PLACEMENT METHOD Tremie
					TRANSITION SAND
					TOP DEPTH N/A
					TYPE/BRAND N/A
					QUANTITY USED N/A
					PLACEMENT METHOD N/A
					SAND/GRAVEL PACK
					TOP DEPTH 9' / 29' / 51' bgs
					TYPE/BRAND Cemex Lapis Lustre #3
					QUANTITY USED 250 / 350 / 150 lbs.
					PLACEMENT METHOD Tremie
					BOTTOM FILL
					TOP DEPTH 58' bgs
					TYPE/BRAND Wyoben Enviroplug Medium
					QUANTITY USED 25 lbs.
					PLACEMENT METHOD Tremie

09-WELL COMP BG HR1305D - SV PROBES.GPJ GEOSYNTEC.GDT 10/25/17

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75" / 6" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:

REVIEWER S. Siciliano, P.G., C.E.G.

DEDICATED PUMP SYSTEM:

TYPE/BRAND:
MODEL:
CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

WELL CONSTRUCTION LOG

DEPTH (ft-bgs)	COMMENTS	GRAPHIC LOG	WELL MATERIAL DEPTH (ft-bgs)	BELOW GROUND SURFACE COMPLETION:	
				SURFACE COMPLETION:	
	1) Groundwater ELEVATION 2) Surge Time 3) Dedicated Pump (ft MSL)			FLUSH-MOUNT PROTECTIVE COVER LOCKING WELL CAP	TYPE Monument WELL CASING DEPTH 2'11"
5	Note: The top 1 ft of each bentonite seal is constructed of Cetco #8 bentonite crumbles, the rest of Wyoben medium bentonite chips.		2.0		BORING DEPTH 90' bgs
10	Screen 1		9.0 10.0		PILOT BORING DIAMETER 4.5"
15			15.0 16.0		REAM BORING DIAMETER 7.75"
20					WELL CONSTRUCTION
25					WELL CONSTRUCTION DATE 10/13/2017
30					WELL DEPTH 86' bgs
35	Screen 2		34.0 35.0		WELL CASING DIAMETER 3/4"
40			40.0 41.0		WELL CASING MATERIAL PVC
45					SCREEN SLOT SIZE/DIRECTION 0.020" Horizontal
50					TOP OF SCREEN 10' / 35' / 55' / 81' bgs
55	Screen 3		54.0 55.0		BOTTOM OF SCREEN 15' / 40' / 60' / 86' bgs
60			60.0 61.0		END CAP/SUMP LENGTH 2"
65					GROUT
70					TOP DEPTH N/A
75					TYPE/BRAND N/A
80	Screen 4		80.0 81.0		QUANTITY USED N/A
85			86.0 87.0		VOLUME FLUID USED N/A
90			90.0		PLACEMENT METHOD N/A
95					BENTONITE SEAL
100					TOP DEPTH 2' / 16' / 41' / 61' bgs
					TYPE/BRAND Wyoben Eviroplug Chips/ Cetco #8 Crumbles
					QUANTITY USED 100 / 400 / 200 / 150 lbs.
					VOLUME FLUID USED ~10 gal per seal
					SET-UP TIME ~15 mins per seal
					PLACEMENT METHOD Tremie
					TRANSITION SAND
					TOP DEPTH N/A
					TYPE/BRAND N/A
					QUANTITY USED N/A
					PLACEMENT METHOD N/A
					SAND/GRAVEL PACK
					TOP DEPTH 9' / 34' / 54' / 80' bgs
					TYPE/BRAND Cemex Lapis Lustre #3
					QUANTITY USED 250 / 175 / 150 / 100 lbs.
					PLACEMENT METHOD Tremie
					BOTTOM FILL
					TOP DEPTH 87' bgs
					TYPE/BRAND Wyoben Enviroplug Medium
					QUANTITY USED 50 lbs.
					PLACEMENT METHOD Tremie

09-WELL COMP BG HR1305D - SV PROBES.GPJ GEOSNTEC.GDT 10/25/17

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75" / 6" / 4.5" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G.

DEDICATED PUMP SYSTEM:
TYPE/BRAND:
MODEL:
CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

WELL CONSTRUCTION LOG

DEPTH (ft-bgs)	COMMENTS	GRAPHIC LOG	WELL MATERIAL DEPTH (ft-bgs)	BELOW GROUND SURFACE COMPLETION:	
				SURFACE COMPLETION:	
	1) Groundwater 2) Surge Time 3) Dedicated Pump			TYPE	Monument
	ELEVATION (ft MSL)			WELL CASING DEPTH	3'5"
				FLUSH-MOUNT PROTECTIVE COVER	
				LOCKING WELL CAP	
	Note: The top 1 ft of each bentonite seal is constructed of Cetco #8 bentonite crumbles, the rest of Wyoben medium bentonite chips.			BORING DEPTH	60' bgs
				PILOT BORING DIAMETER	6"
				REAM BORING DIAMETER	7.75"
				WELL CONSTRUCTION	
				WELL CONSTRUCTION DATE	10/12/2017
				WELL DEPTH	53' bgs
				WELL CASING DIAMETER	3/4"
				WELL CASING MATERIAL	PVC
				SCREEN SLOT SIZE/DIRECTION	0.020" Horizontal
				TOP OF SCREEN	12' / 30' / 48' bgs
				BOTTOM OF SCREEN	17' / 35' / 53' bgs
				END CAP/SUMP LENGTH	2"
				GROUT	
				TOP DEPTH	N/A
				TYPE/BRAND	N/A
				QUANTITY USED	N/A
				VOLUME FLUID USED	N/A
				PLACEMENT METHOD	N/A
				BENTONITE SEAL	
				TOP DEPTH	2' / 18' / 37' bgs
				TYPE/BRAND	Wyoben Eviroplug Chips/ Cetco #8 Crumbles
				QUANTITY USED	150 / 200 / 150 lbs.
				VOLUME FLUID USED	~10 gal per seal
				SET-UP TIME	~15 mins per seal
				PLACEMENT METHOD	Tremie
				TRANSITION SAND	
				TOP DEPTH	N/A
				TYPE/BRAND	N/A
				QUANTITY USED	N/A
				PLACEMENT METHOD	N/A
				SAND/GRAVEL PACK	
				TOP DEPTH	11' / 29' / 47' bgs
				TYPE/BRAND	Cemex Lapis Lustre #3
				QUANTITY USED	250 / 150 / 125 lbs.
				PLACEMENT METHOD	Tremie
				BOTTOM FILL	
				TOP DEPTH	54' bgs
				TYPE/BRAND	Wyoben Enviroplug Medium
				QUANTITY USED	50 lbs.
				PLACEMENT METHOD	Tremie

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75" / 6" OD
LOGGER G. Wharton

NORTHING
EASTING
COORDINATE SYSTEM:
REVIEWER S. Siciliano, P.G., C.E.G

DEDICATED PUMP SYSTEM:
TYPE/BRAND:
MODEL:
CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

WELL CONSTRUCTION LOG

DEPTH (ft-bgs)	COMMENTS	GRAPHIC LOG	WELL MATERIAL DEPTH (ft-bgs)	BELOW GROUND SURFACE COMPLETION:	
				SURFACE COMPLETION:	
	1) Groundwater 2) Surge Time 3) Dedicated Pump			FLUSH-MOUNT PROTECTIVE COVER LOCKING WELL CAP	TYPE Monument WELL CASING DEPTH 2'8"
5	Note: The top 1 ft of each bentonite seal is constructed of Cetco #8 bentonite crumbles, the rest of Wyoben medium bentonite chips.		2.0		BORING DEPTH 90' bgs PILOT BORING DIAMETER 4.5" REAM BORING DIAMETER 7.75"
10	Screen 1		11.0 12.0		WELL CONSTRUCTION WELL CONSTRUCTION DATE 10/12/2017 WELL DEPTH 80' bgs WELL CASING DIAMETER 3/4" WELL CASING MATERIAL PVC SCREEN SLOT SIZE/DIRECTION 0.020" Horizontal TOP OF SCREEN 12' / 32' / 52' / 75' bgs BOTTOM OF SCREEN 17' / 37' / 57' / 80' END CAP/SUMP LENGTH 2"
15			17.0 18.0		GROUT TOP DEPTH N/A TYPE/BRAND N/A QUANTITY USED N/A VOLUME FLUID USED N/A PLACEMENT METHOD N/A
20					BENTONITE SEAL TOP DEPTH 2' / 18' / 38' / 58' bgs TYPE/BRAND Wyoben Eviroplug Chips/ Cetco #8 Crumbles QUANTITY USED 150 / 250 / 200 / 400 lbs. VOLUME FLUID USED ~10 gal per seal SET-UP TIME ~15 mins per seal PLACEMENT METHOD Tremie
25			31.0 32.0		TRANSITION SAND TOP DEPTH N/A TYPE/BRAND N/A QUANTITY USED N/A PLACEMENT METHOD N/A
30	Screen 2		37.0 38.0		SAND/GRAVEL PACK TOP DEPTH 11' / 31' / 51' / 74' bgs TYPE/BRAND Cemex Lapis Lustre #3 QUANTITY USED 250 / 350 / 250 / 250 lbs. PLACEMENT METHOD Tremie
35					BOTTOM FILL TOP DEPTH 81' bgs TYPE/BRAND Wyoben Enviroplug Medium QUANTITY USED 100 lbs. PLACEMENT METHOD Tremie
40			51.0 52.0		
45			57.0 58.0		
50	Screen 3				
55			74.0 75.0		
60			80.0 81.0		
65					
70					
75	Screen 4				
80					
85					
90					
95					
100					

CONTRACTOR BC2 Environmental
EQUIPMENT T150
DRILL MTHD Sonic
DIAMETER 7.75" / 6" / 4.5" OD
LOGGER D. Dowd

NORTHING
EASTING
COORDINATE SYSTEM:

REVIEWER S. Siciliano, P.G., C.E.G.

DEDICATED PUMP SYSTEM:

TYPE/BRAND:
MODEL:
CONTROLLER TYPE:

SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

APPENDIX C

Laboratory Reports, Soil



Supplemental Report 1

The original report has been
revised/corrected.

**WORK ORDER NUMBER: 17-10-0625**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** Geosyntec Consultants**Client Project Name:** 777 N. Front Street / HR1305D-01

Attention: Goodwin Wharton
2100 Main Street
Suite 150
Huntington Beach, CA 92648-2460

A handwritten signature in black ink, appearing to read "S. Nowak".

Approved for release on 11/14/2017 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: 777 N. Front Street / HR1305D-01
 Work Order Number: 17-10-0625

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Work Order Narrative

Work Order: 17-10-0625

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/09/17. They were assigned to Work Order 17-10-0625.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Sample Summary

Client:	Geosyntec Consultants	Work Order:	17-10-0625
	2100 Main Street, Suite 150	Project Name:	777 N. Front Street / HR1305D-01
	Huntington Beach, CA 92648-2460	PO Number:	
		Date/Time Received:	10/09/17 17:55
		Number of Containers:	22

Attn: Goodwin Wharton

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
NP-1-12	17-10-0625-1	10/09/17 09:20	4	Solid
NP-1-22	17-10-0625-2	10/09/17 09:40	4	Solid
NP-1-50	17-10-0625-3	10/09/17 10:15	4	Solid
NP-1-67	17-10-0625-4	10/09/17 10:45	4	Solid
NP-1-88	17-10-0625-5	10/09/17 11:40	4	Solid
EB-NP-1	17-10-0625-6	10/09/17 14:55	2	Aqueous



Calscience

Detections Summary

Client: Geosyntec Consultants
 2100 Main Street, Suite 150
 Huntington Beach, CA 92648-2460

Work Order: 17-10-0625
 Project Name: 777 N. Front Street / HR1305D-01
 Received: 10/09/17

Attn: Goodwin Wharton

Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
NP-1-12 (17-10-0625-1)						
Acetone	6.2	J	4.6*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.47	J	0.15*	ug/kg	EPA 8260B	EPA 5035
NP-1-22 (17-10-0625-2)						
Acetone	8.0	J	5.0*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.31	J	0.17*	ug/kg	EPA 8260B	EPA 5035
NP-1-50 (17-10-0625-3)						
Acetone	5.6	J	5.3*	ug/kg	EPA 8260B	EPA 5035
Benzene	2.9		0.84	ug/kg	EPA 8260B	EPA 5035
2-Butanone	4.9	J	3.2*	ug/kg	EPA 8260B	EPA 5035
Chloromethane	0.28	J	0.26*	ug/kg	EPA 8260B	EPA 5035
Ethylbenzene	0.15	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Toluene	1.4		0.84	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	0.33	J	0.23*	ug/kg	EPA 8260B	EPA 5035
NP-1-88 (17-10-0625-5)						
Chlorobenzene	0.33	B,J	0.21*	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-NP-1	17-10-0625-6-A	10/09/17 14:55	Aqueous	GC/MS JJ	10/12/17	10/13/17 01:00	171012L036

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

Page 2 of 4

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	78-120	
Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	101	80-129	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

Page 3 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-316-3669	N/A	Aqueous	GC/MS JJ	10/12/17	10/13/17 00:29	171012L036

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	78-120	
Dibromofluoromethane	102	80-126	
1,2-Dichloroethane-d4	106	80-129	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-1-12	17-10-0625-1-C	10/09/17 09:20	Solid	GC/MS LL	10/09/17	10/13/17 12:48	171013L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	6.2	36	4.6	1.00	J
Benzene	ND	0.73	0.095	1.00	
Bromobenzene	ND	0.73	0.15	1.00	
Bromochloromethane	ND	1.5	0.50	1.00	
Bromodichloromethane	ND	0.73	0.17	1.00	
Bromoform	ND	3.6	0.58	1.00	
Bromomethane	ND	15	6.9	1.00	
2-Butanone	ND	15	2.8	1.00	
n-Butylbenzene	ND	0.73	0.11	1.00	
sec-Butylbenzene	ND	0.73	0.42	1.00	
tert-Butylbenzene	ND	0.73	0.11	1.00	
Carbon Disulfide	ND	7.3	0.22	1.00	
Carbon Tetrachloride	ND	0.73	0.21	1.00	
Chlorobenzene	ND	0.73	0.16	1.00	
Chloroethane	ND	1.5	1.1	1.00	
Chloroform	ND	0.73	0.17	1.00	
Chloromethane	ND	15	0.22	1.00	
2-Chlorotoluene	ND	0.73	0.17	1.00	
4-Chlorotoluene	ND	0.73	0.16	1.00	
Dibromochloromethane	ND	1.5	0.42	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.6	1.3	1.00	
1,2-Dibromoethane	ND	0.73	0.19	1.00	
Dibromomethane	ND	0.73	0.57	1.00	
1,2-Dichlorobenzene	ND	0.73	0.17	1.00	
1,3-Dichlorobenzene	ND	0.73	0.13	1.00	
1,4-Dichlorobenzene	ND	0.73	0.16	1.00	
Dichlorodifluoromethane	ND	1.5	0.32	1.00	
1,1-Dichloroethane	ND	0.73	0.15	1.00	
1,2-Dichloroethane	ND	0.73	0.23	1.00	
1,1-Dichloroethene	ND	0.73	0.25	1.00	
c-1,2-Dichloroethene	ND	0.73	0.20	1.00	
t-1,2-Dichloroethene	ND	0.73	0.37	1.00	
1,2-Dichloropropane	ND	0.73	0.32	1.00	
1,3-Dichloropropane	ND	0.73	0.18	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	3.6	0.24	1.00	
1,1-Dichloropropene	ND	1.5	0.24	1.00	
c-1,3-Dichloropropene	ND	0.73	0.19	1.00	
t-1,3-Dichloropropene	ND	1.5	0.44	1.00	
Ethylbenzene	ND	0.73	0.11	1.00	
2-Hexanone	ND	15	1.3	1.00	
Isopropylbenzene	ND	0.73	0.40	1.00	
p-Isopropyltoluene	ND	0.73	0.46	1.00	
Methylene Chloride	ND	7.3	0.98	1.00	
4-Methyl-2-Pentanone	ND	15	3.2	1.00	
Naphthalene	ND	7.3	0.59	1.00	
n-Propylbenzene	ND	1.5	0.37	1.00	
Styrene	ND	0.73	0.44	1.00	
1,1,1,2-Tetrachloroethane	ND	0.73	0.18	1.00	
1,1,2,2-Tetrachloroethane	ND	1.5	0.25	1.00	
Tetrachloroethene	0.47	0.73	0.15	1.00	J
Toluene	ND	0.73	0.38	1.00	
1,2,3-Trichlorobenzene	ND	1.5	0.67	1.00	
1,2,4-Trichlorobenzene	ND	1.5	0.23	1.00	
1,1,1-Trichloroethane	ND	0.73	0.16	1.00	
1,1,2-Trichloroethane	ND	0.73	0.26	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.3	0.26	1.00	
Trichloroethene	ND	1.5	0.22	1.00	
Trichlorofluoromethane	ND	7.3	0.27	1.00	
1,2,3-Trichloropropane	ND	1.5	0.61	1.00	
1,2,4-Trimethylbenzene	ND	1.5	0.43	1.00	
1,3,5-Trimethylbenzene	ND	1.5	0.40	1.00	
Vinyl Acetate	ND	7.3	3.5	1.00	
Vinyl Chloride	ND	0.73	0.37	1.00	
p/m-Xylene	ND	1.5	0.20	1.00	
o-Xylene	ND	0.73	0.41	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.5	0.22	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	112	71-155	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-1-22	17-10-0625-2-C	10/09/17 09:40	Solid	GC/MS LL	10/09/17	10/13/17 13:16	171013L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	8.0	40	5.0	1.00	J
Benzene	ND	0.80	0.10	1.00	
Bromobenzene	ND	0.80	0.17	1.00	
Bromochloromethane	ND	1.6	0.55	1.00	
Bromodichloromethane	ND	0.80	0.19	1.00	
Bromoform	ND	4.0	0.63	1.00	
Bromomethane	ND	16	7.5	1.00	
2-Butanone	ND	16	3.0	1.00	
n-Butylbenzene	ND	0.80	0.12	1.00	
sec-Butylbenzene	ND	0.80	0.46	1.00	
tert-Butylbenzene	ND	0.80	0.12	1.00	
Carbon Disulfide	ND	8.0	0.24	1.00	
Carbon Tetrachloride	ND	0.80	0.23	1.00	
Chlorobenzene	ND	0.80	0.18	1.00	
Chloroethane	ND	1.6	1.2	1.00	
Chloroform	ND	0.80	0.19	1.00	
Chloromethane	ND	16	0.24	1.00	
2-Chlorotoluene	ND	0.80	0.18	1.00	
4-Chlorotoluene	ND	0.80	0.17	1.00	
Dibromochloromethane	ND	1.6	0.45	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.4	1.00	
1,2-Dibromoethane	ND	0.80	0.20	1.00	
Dibromomethane	ND	0.80	0.62	1.00	
1,2-Dichlorobenzene	ND	0.80	0.18	1.00	
1,3-Dichlorobenzene	ND	0.80	0.14	1.00	
1,4-Dichlorobenzene	ND	0.80	0.18	1.00	
Dichlorodifluoromethane	ND	1.6	0.35	1.00	
1,1-Dichloroethane	ND	0.80	0.17	1.00	
1,2-Dichloroethane	ND	0.80	0.25	1.00	
1,1-Dichloroethene	ND	0.80	0.28	1.00	
c-1,2-Dichloroethene	ND	0.80	0.22	1.00	
t-1,2-Dichloroethene	ND	0.80	0.40	1.00	
1,2-Dichloropropane	ND	0.80	0.35	1.00	
1,3-Dichloropropane	ND	0.80	0.20	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.0	0.26	1.00	
1,1-Dichloropropene	ND	1.6	0.26	1.00	
c-1,3-Dichloropropene	ND	0.80	0.20	1.00	
t-1,3-Dichloropropene	ND	1.6	0.48	1.00	
Ethylbenzene	ND	0.80	0.12	1.00	
2-Hexanone	ND	16	1.4	1.00	
Isopropylbenzene	ND	0.80	0.43	1.00	
p-Isopropyltoluene	ND	0.80	0.50	1.00	
Methylene Chloride	ND	8.0	1.1	1.00	
4-Methyl-2-Pentanone	ND	16	3.4	1.00	
Naphthalene	ND	8.0	0.65	1.00	
n-Propylbenzene	ND	1.6	0.40	1.00	
Styrene	ND	0.80	0.48	1.00	
1,1,1,2-Tetrachloroethane	ND	0.80	0.19	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	0.28	1.00	
Tetrachloroethene	0.31	0.80	0.17	1.00	J
Toluene	ND	0.80	0.41	1.00	
1,2,3-Trichlorobenzene	ND	1.6	0.73	1.00	
1,2,4-Trichlorobenzene	ND	1.6	0.25	1.00	
1,1,1-Trichloroethane	ND	0.80	0.18	1.00	
1,1,2-Trichloroethane	ND	0.80	0.28	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.0	0.28	1.00	
Trichloroethene	ND	1.6	0.24	1.00	
Trichlorofluoromethane	ND	8.0	0.30	1.00	
1,2,3-Trichloropropane	ND	1.6	0.66	1.00	
1,2,4-Trimethylbenzene	ND	1.6	0.47	1.00	
1,3,5-Trimethylbenzene	ND	1.6	0.44	1.00	
Vinyl Acetate	ND	8.0	3.8	1.00	
Vinyl Chloride	ND	0.80	0.40	1.00	
p/m-Xylene	ND	1.6	0.21	1.00	
o-Xylene	ND	0.80	0.44	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.24	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	94	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	108	71-155	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-1-50	17-10-0625-3-C	10/09/17 10:15	Solid	GC/MS LL	10/09/17	10/13/17 13:45	171013L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	5.6	42	5.3	1.00	J
Benzene	2.9	0.84	0.11	1.00	
Bromobenzene	ND	0.84	0.18	1.00	
Bromochloromethane	ND	1.7	0.58	1.00	
Bromodichloromethane	ND	0.84	0.20	1.00	
Bromoform	ND	4.2	0.67	1.00	
Bromomethane	ND	17	7.9	1.00	
2-Butanone	4.9	17	3.2	1.00	J
n-Butylbenzene	ND	0.84	0.13	1.00	
sec-Butylbenzene	ND	0.84	0.49	1.00	
tert-Butylbenzene	ND	0.84	0.13	1.00	
Carbon Disulfide	ND	8.4	0.26	1.00	
Carbon Tetrachloride	ND	0.84	0.24	1.00	
Chlorobenzene	ND	0.84	0.19	1.00	
Chloroethane	ND	1.7	1.3	1.00	
Chloroform	ND	0.84	0.20	1.00	
Chloromethane	0.28	17	0.26	1.00	J
2-Chlorotoluene	ND	0.84	0.19	1.00	
4-Chlorotoluene	ND	0.84	0.18	1.00	
Dibromochloromethane	ND	1.7	0.48	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.5	1.00	
1,2-Dibromoethane	ND	0.84	0.21	1.00	
Dibromomethane	ND	0.84	0.65	1.00	
1,2-Dichlorobenzene	ND	0.84	0.19	1.00	
1,3-Dichlorobenzene	ND	0.84	0.15	1.00	
1,4-Dichlorobenzene	ND	0.84	0.19	1.00	
Dichlorodifluoromethane	ND	1.7	0.37	1.00	
1,1-Dichloroethane	ND	0.84	0.18	1.00	
1,2-Dichloroethane	ND	0.84	0.26	1.00	
1,1-Dichloroethene	ND	0.84	0.29	1.00	
c-1,2-Dichloroethene	ND	0.84	0.24	1.00	
t-1,2-Dichloroethene	ND	0.84	0.43	1.00	
1,2-Dichloropropane	ND	0.84	0.37	1.00	
1,3-Dichloropropane	ND	0.84	0.21	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.2	0.28	1.00	
1,1-Dichloropropene	ND	1.7	0.28	1.00	
c-1,3-Dichloropropene	ND	0.84	0.21	1.00	
t-1,3-Dichloropropene	ND	1.7	0.51	1.00	
Ethylbenzene	0.15	0.84	0.13	1.00	J
2-Hexanone	ND	17	1.5	1.00	
Isopropylbenzene	ND	0.84	0.46	1.00	
p-Isopropyltoluene	ND	0.84	0.53	1.00	
Methylene Chloride	ND	8.4	1.1	1.00	
4-Methyl-2-Pentanone	ND	17	3.6	1.00	
Naphthalene	ND	8.4	0.69	1.00	
n-Propylbenzene	ND	1.7	0.42	1.00	
Styrene	ND	0.84	0.51	1.00	
1,1,1,2-Tetrachloroethane	ND	0.84	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	0.29	1.00	
Tetrachloroethene	ND	0.84	0.18	1.00	
Toluene	1.4	0.84	0.43	1.00	
1,2,3-Trichlorobenzene	ND	1.7	0.77	1.00	
1,2,4-Trichlorobenzene	ND	1.7	0.26	1.00	
1,1,1-Trichloroethane	ND	0.84	0.19	1.00	
1,1,2-Trichloroethane	ND	0.84	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.4	0.30	1.00	
Trichloroethene	ND	1.7	0.25	1.00	
Trichlorofluoromethane	ND	8.4	0.32	1.00	
1,2,3-Trichloropropane	ND	1.7	0.70	1.00	
1,2,4-Trimethylbenzene	ND	1.7	0.49	1.00	
1,3,5-Trimethylbenzene	ND	1.7	0.46	1.00	
Vinyl Acetate	ND	8.4	4.0	1.00	
Vinyl Chloride	ND	0.84	0.42	1.00	
p/m-Xylene	0.33	1.7	0.23	1.00	J
o-Xylene	ND	0.84	0.47	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	113	71-155	
Toluene-d8	103	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-1-67	17-10-0625-4-C	10/09/17 10:45	Solid	GC/MS LL	10/09/17	10/13/17 14:14	171013L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	47	5.9	1.00	
Benzene	ND	0.95	0.12	1.00	
Bromobenzene	ND	0.95	0.20	1.00	
Bromochloromethane	ND	1.9	0.65	1.00	
Bromodichloromethane	ND	0.95	0.22	1.00	
Bromoform	ND	4.7	0.75	1.00	
Bromomethane	ND	19	8.9	1.00	
2-Butanone	ND	19	3.6	1.00	
n-Butylbenzene	ND	0.95	0.15	1.00	
sec-Butylbenzene	ND	0.95	0.55	1.00	
tert-Butylbenzene	ND	0.95	0.14	1.00	
Carbon Disulfide	ND	9.5	0.29	1.00	
Carbon Tetrachloride	ND	0.95	0.27	1.00	
Chlorobenzene	ND	0.95	0.21	1.00	
Chloroethane	ND	1.9	1.4	1.00	
Chloroform	ND	0.95	0.23	1.00	
Chloromethane	ND	19	0.29	1.00	
2-Chlorotoluene	ND	0.95	0.22	1.00	
4-Chlorotoluene	ND	0.95	0.20	1.00	
Dibromochloromethane	ND	1.9	0.54	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.7	1.6	1.00	
1,2-Dibromoethane	ND	0.95	0.24	1.00	
Dibromomethane	ND	0.95	0.73	1.00	
1,2-Dichlorobenzene	ND	0.95	0.22	1.00	
1,3-Dichlorobenzene	ND	0.95	0.17	1.00	
1,4-Dichlorobenzene	ND	0.95	0.21	1.00	
Dichlorodifluoromethane	ND	1.9	0.42	1.00	
1,1-Dichloroethane	ND	0.95	0.20	1.00	
1,2-Dichloroethane	ND	0.95	0.30	1.00	
1,1-Dichloroethene	ND	0.95	0.33	1.00	
c-1,2-Dichloroethene	ND	0.95	0.26	1.00	
t-1,2-Dichloroethene	ND	0.95	0.48	1.00	
1,2-Dichloropropane	ND	0.95	0.41	1.00	
1,3-Dichloropropane	ND	0.95	0.24	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.7	0.31	1.00	
1,1-Dichloropropene	ND	1.9	0.31	1.00	
c-1,3-Dichloropropene	ND	0.95	0.24	1.00	
t-1,3-Dichloropropene	ND	1.9	0.57	1.00	
Ethylbenzene	ND	0.95	0.14	1.00	
2-Hexanone	ND	19	1.7	1.00	
Isopropylbenzene	ND	0.95	0.52	1.00	
p-Isopropyltoluene	ND	0.95	0.60	1.00	
Methylene Chloride	ND	9.5	1.3	1.00	
4-Methyl-2-Pentanone	ND	19	4.1	1.00	
Naphthalene	ND	9.5	0.77	1.00	
n-Propylbenzene	ND	1.9	0.48	1.00	
Styrene	ND	0.95	0.57	1.00	
1,1,1,2-Tetrachloroethane	ND	0.95	0.23	1.00	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	1.00	
Tetrachloroethene	ND	0.95	0.20	1.00	
Toluene	ND	0.95	0.49	1.00	
1,2,3-Trichlorobenzene	ND	1.9	0.86	1.00	
1,2,4-Trichlorobenzene	ND	1.9	0.29	1.00	
1,1,1-Trichloroethane	ND	0.95	0.21	1.00	
1,1,2-Trichloroethane	ND	0.95	0.34	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.5	0.33	1.00	
Trichloroethene	ND	1.9	0.28	1.00	
Trichlorofluoromethane	ND	9.5	0.36	1.00	
1,2,3-Trichloropropane	ND	1.9	0.79	1.00	
1,2,4-Trimethylbenzene	ND	1.9	0.56	1.00	
1,3,5-Trimethylbenzene	ND	1.9	0.52	1.00	
Vinyl Acetate	ND	9.5	4.5	1.00	
Vinyl Chloride	ND	0.95	0.48	1.00	
p/m-Xylene	ND	1.9	0.25	1.00	
o-Xylene	ND	0.95	0.53	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	106	79-133	
1,2-Dichloroethane-d4	112	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-1-88	17-10-0625-5-C	10/09/17 11:40	Solid	GC/MS LL	10/09/17	10/14/17 13:51	171014L006

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	47	5.9	1.00	
Benzene	ND	0.95	0.12	1.00	
Bromobenzene	ND	0.95	0.20	1.00	
Bromochloromethane	ND	1.9	0.66	1.00	
Bromodichloromethane	ND	0.95	0.22	1.00	
Bromoform	ND	4.7	0.75	1.00	
Bromomethane	ND	19	8.9	1.00	
2-Butanone	ND	19	3.6	1.00	
n-Butylbenzene	ND	0.95	0.15	1.00	
sec-Butylbenzene	ND	0.95	0.55	1.00	
tert-Butylbenzene	ND	0.95	0.14	1.00	
Carbon Disulfide	ND	9.5	0.29	1.00	
Carbon Tetrachloride	ND	0.95	0.27	1.00	
Chlorobenzene	0.33	0.95	0.21	1.00	B,J
Chloroethane	ND	1.9	1.4	1.00	
Chloroform	ND	0.95	0.23	1.00	
Chloromethane	ND	19	0.29	1.00	
2-Chlorotoluene	ND	0.95	0.22	1.00	
4-Chlorotoluene	ND	0.95	0.20	1.00	
Dibromochloromethane	ND	1.9	0.54	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.7	1.7	1.00	
1,2-Dibromoethane	ND	0.95	0.24	1.00	
Dibromomethane	ND	0.95	0.73	1.00	
1,2-Dichlorobenzene	ND	0.95	0.22	1.00	
1,3-Dichlorobenzene	ND	0.95	0.17	1.00	
1,4-Dichlorobenzene	ND	0.95	0.21	1.00	
Dichlorodifluoromethane	ND	1.9	0.42	1.00	
1,1-Dichloroethane	ND	0.95	0.20	1.00	
1,2-Dichloroethane	ND	0.95	0.30	1.00	
1,1-Dichloroethene	ND	0.95	0.33	1.00	
c-1,2-Dichloroethene	ND	0.95	0.27	1.00	
t-1,2-Dichloroethene	ND	0.95	0.48	1.00	
1,2-Dichloropropane	ND	0.95	0.42	1.00	
1,3-Dichloropropane	ND	0.95	0.24	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.7	0.31	1.00	
1,1-Dichloropropene	ND	1.9	0.31	1.00	
c-1,3-Dichloropropene	ND	0.95	0.24	1.00	
t-1,3-Dichloropropene	ND	1.9	0.57	1.00	
Ethylbenzene	ND	0.95	0.14	1.00	
2-Hexanone	ND	19	1.7	1.00	
Isopropylbenzene	ND	0.95	0.52	1.00	
p-Isopropyltoluene	ND	0.95	0.60	1.00	
Methylene Chloride	ND	9.5	1.3	1.00	
4-Methyl-2-Pentanone	ND	19	4.1	1.00	
Naphthalene	ND	9.5	0.77	1.00	
n-Propylbenzene	ND	1.9	0.48	1.00	
Styrene	ND	0.95	0.57	1.00	
1,1,1,2-Tetrachloroethane	ND	0.95	0.23	1.00	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	1.00	
Tetrachloroethene	ND	0.95	0.20	1.00	
Toluene	ND	0.95	0.49	1.00	
1,2,3-Trichlorobenzene	ND	1.9	0.87	1.00	
1,2,4-Trichlorobenzene	ND	1.9	0.29	1.00	
1,1,1-Trichloroethane	ND	0.95	0.21	1.00	
1,1,2-Trichloroethane	ND	0.95	0.34	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.5	0.33	1.00	
Trichloroethene	ND	1.9	0.29	1.00	
Trichlorofluoromethane	ND	9.5	0.36	1.00	
1,2,3-Trichloropropane	ND	1.9	0.79	1.00	
1,2,4-Trimethylbenzene	ND	1.9	0.56	1.00	
1,3,5-Trimethylbenzene	ND	1.9	0.52	1.00	
Vinyl Acetate	ND	9.5	4.5	1.00	
Vinyl Chloride	ND	0.95	0.48	1.00	
p/m-Xylene	ND	1.9	0.25	1.00	
o-Xylene	ND	0.95	0.53	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.28	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	91	80-120	
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-312-858	N/A	Solid	GC/MS LL	10/13/17	10/13/17 11:51	171013L009

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1.00	
Benzene	ND	1.0	0.13	1.00	
Bromobenzene	ND	1.0	0.21	1.00	
Bromochloromethane	ND	2.0	0.69	1.00	
Bromodichloromethane	ND	1.0	0.23	1.00	
Bromoform	ND	5.0	0.79	1.00	
Bromomethane	ND	20	9.4	1.00	
2-Butanone	ND	20	3.8	1.00	
n-Butylbenzene	ND	1.0	0.16	1.00	
sec-Butylbenzene	ND	1.0	0.58	1.00	
tert-Butylbenzene	ND	1.0	0.15	1.00	
Carbon Disulfide	ND	10	0.31	1.00	
Carbon Tetrachloride	ND	1.0	0.28	1.00	
Chlorobenzene	ND	1.0	0.22	1.00	
Chloroethane	ND	2.0	1.5	1.00	
Chloroform	ND	1.0	0.24	1.00	
Chloromethane	ND	20	0.30	1.00	
2-Chlorotoluene	ND	1.0	0.23	1.00	
4-Chlorotoluene	ND	1.0	0.21	1.00	
Dibromochloromethane	ND	2.0	0.57	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1.00	
1,2-Dibromoethane	ND	1.0	0.26	1.00	
Dibromomethane	ND	1.0	0.77	1.00	
1,2-Dichlorobenzene	ND	1.0	0.23	1.00	
1,3-Dichlorobenzene	ND	1.0	0.18	1.00	
1,4-Dichlorobenzene	ND	1.0	0.22	1.00	
Dichlorodifluoromethane	ND	2.0	0.44	1.00	
1,1-Dichloroethane	ND	1.0	0.21	1.00	
1,2-Dichloroethane	ND	1.0	0.31	1.00	
1,1-Dichloroethene	ND	1.0	0.35	1.00	
c-1,2-Dichloroethene	ND	1.0	0.28	1.00	
t-1,2-Dichloroethene	ND	1.0	0.51	1.00	
1,2-Dichloropropane	ND	1.0	0.44	1.00	
1,3-Dichloropropane	ND	1.0	0.25	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	ND	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	98	71-155	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-312-862	N/A	Solid	GC/MS LL	10/14/17	10/14/17 12:54	171014L006

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1.00	
Benzene	ND	1.0	0.13	1.00	
Bromobenzene	ND	1.0	0.21	1.00	
Bromochloromethane	ND	2.0	0.69	1.00	
Bromodichloromethane	ND	1.0	0.23	1.00	
Bromoform	ND	5.0	0.79	1.00	
Bromomethane	ND	20	9.4	1.00	
2-Butanone	ND	20	3.8	1.00	
n-Butylbenzene	ND	1.0	0.16	1.00	
sec-Butylbenzene	ND	1.0	0.58	1.00	
tert-Butylbenzene	ND	1.0	0.15	1.00	
Carbon Disulfide	ND	10	0.31	1.00	
Carbon Tetrachloride	ND	1.0	0.28	1.00	
Chlorobenzene	0.38	1.0	0.22	1.00	J
Chloroethane	ND	2.0	1.5	1.00	
Chloroform	ND	1.0	0.24	1.00	
Chloromethane	ND	20	0.30	1.00	
2-Chlorotoluene	ND	1.0	0.23	1.00	
4-Chlorotoluene	ND	1.0	0.21	1.00	
Dibromochloromethane	ND	2.0	0.57	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1.00	
1,2-Dibromoethane	ND	1.0	0.26	1.00	
Dibromomethane	ND	1.0	0.77	1.00	
1,2-Dichlorobenzene	ND	1.0	0.23	1.00	
1,3-Dichlorobenzene	ND	1.0	0.18	1.00	
1,4-Dichlorobenzene	ND	1.0	0.22	1.00	
Dichlorodifluoromethane	ND	2.0	0.44	1.00	
1,1-Dichloroethane	ND	1.0	0.21	1.00	
1,2-Dichloroethane	ND	1.0	0.31	1.00	
1,1-Dichloroethene	ND	1.0	0.35	1.00	
c-1,2-Dichloroethene	ND	1.0	0.28	1.00	
t-1,2-Dichloroethene	ND	1.0	0.51	1.00	
1,2-Dichloropropane	ND	1.0	0.44	1.00	
1,3-Dichloropropane	ND	1.0	0.25	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	ND	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	105	71-155	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-10-0679-1	Sample	Aqueous	GC/MS JJ	10/12/17	10/13/17 01:32	171012S014
17-10-0679-1	Matrix Spike	Aqueous	GC/MS JJ	10/12/17	10/12/17 22:24	171012S014
17-10-0679-1	Matrix Spike Duplicate	Aqueous	GC/MS JJ	10/12/17	10/12/17 22:56	171012S014

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	55.89	112	57.47	115	34-166	3	0-33	
Benzene	ND	50.00	51.45	103	55.08	110	75-125	7	0-20	
Bromobenzene	ND	50.00	49.82	100	52.23	104	75-125	5	0-20	
Bromochloromethane	ND	50.00	51.94	104	55.91	112	75-125	7	0-20	
Bromodichloromethane	ND	50.00	49.21	98	52.34	105	75-134	6	0-20	
Bromoform	ND	50.00	33.80	68	36.84	74	74-134	9	0-20	3
Bromomethane	ND	50.00	42.43	85	44.99	90	20-168	6	0-40	
2-Butanone	ND	50.00	46.83	94	48.77	98	37-157	4	0-20	
n-Butylbenzene	ND	50.00	47.46	95	49.99	100	73-145	5	0-20	
sec-Butylbenzene	ND	50.00	48.57	97	51.39	103	75-135	6	0-20	
tert-Butylbenzene	ND	50.00	50.93	102	54.03	108	75-136	6	0-20	
Carbon Disulfide	ND	50.00	49.33	99	53.61	107	50-152	8	0-27	
Carbon Tetrachloride	ND	50.00	41.57	83	46.30	93	70-154	11	0-20	
Chlorobenzene	ND	50.00	48.20	96	51.77	104	75-125	7	0-20	
Chloroethane	ND	50.00	48.84	98	51.31	103	41-167	5	0-26	
Chloroform	ND	50.00	47.30	95	51.91	104	75-127	9	0-20	
Chloromethane	ND	50.00	43.63	87	43.63	87	41-149	0	0-20	
2-Chlorotoluene	ND	50.00	50.09	100	52.47	105	75-128	5	0-20	
4-Chlorotoluene	ND	50.00	49.87	100	52.26	105	75-125	5	0-20	
Dibromochloromethane	ND	50.00	41.63	83	45.30	91	75-131	8	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	48.27	97	49.16	98	64-142	2	0-20	
1,2-Dibromoethane	ND	50.00	50.39	101	52.92	106	75-129	5	0-20	
Dibromomethane	ND	50.00	48.08	96	51.05	102	75-125	6	0-20	
1,2-Dichlorobenzene	ND	50.00	49.16	98	51.21	102	75-125	4	0-20	
1,3-Dichlorobenzene	ND	50.00	48.70	97	51.35	103	75-125	5	0-20	
1,4-Dichlorobenzene	ND	50.00	48.37	97	50.64	101	75-125	5	0-20	
Dichlorodifluoromethane	ND	50.00	27.33	55	27.24	54	25-157	0	0-26	
1,1-Dichloroethane	ND	50.00	48.26	97	53.17	106	73-139	10	0-20	
1,2-Dichloroethane	ND	50.00	50.09	100	53.37	107	75-125	6	0-20	
1,1-Dichloroethene	ND	50.00	47.48	95	51.28	103	61-145	8	0-20	
c-1,2-Dichloroethene	ND	50.00	47.36	95	51.68	103	75-125	9	0-20	
t-1,2-Dichloroethene	ND	50.00	49.84	100	54.47	109	64-142	9	0-20	
1,2-Dichloropropane	ND	50.00	50.18	100	54.11	108	75-127	8	0-20	
1,3-Dichloropropane	ND	50.00	49.22	98	52.23	104	75-125	6	0-20	
2,2-Dichloropropane	ND	50.00	37.38	75	39.58	79	24-180	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	47.42	95	51.41	103	75-135	8	0-20	
c-1,3-Dichloropropene	ND	50.00	47.91	96	50.65	101	75-137	6	0-20	
t-1,3-Dichloropropene	ND	50.00	47.51	95	50.52	101	74-146	6	0-20	
Ethylbenzene	ND	50.00	49.84	100	53.16	106	75-129	6	0-20	
2-Hexanone	ND	50.00	49.96	100	51.63	103	47-161	3	0-20	
Isopropylbenzene	ND	50.00	49.84	100	52.74	105	75-135	6	0-20	
p-Isopropyltoluene	ND	50.00	47.95	96	50.72	101	75-136	6	0-20	
Methylene Chloride	ND	50.00	48.50	97	52.87	106	63-141	9	0-20	
4-Methyl-2-Pentanone	ND	50.00	49.75	99	51.70	103	66-138	4	0-20	
Naphthalene	ND	50.00	49.59	99	50.47	101	59-143	2	0-20	
n-Propylbenzene	ND	50.00	49.02	98	51.82	104	75-133	6	0-20	
Styrene	ND	50.00	50.14	100	53.05	106	70-142	6	0-28	
1,1,1,2-Tetrachloroethane	ND	50.00	46.81	94	51.33	103	75-139	9	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	51.51	103	54.47	109	61-145	6	0-20	
Tetrachloroethene	ND	50.00	43.05	86	46.34	93	47-143	7	0-20	
Toluene	ND	50.00	50.32	101	53.92	108	75-125	7	0-20	
1,2,3-Trichlorobenzene	ND	50.00	47.42	95	49.49	99	73-133	4	0-20	
1,2,4-Trichlorobenzene	ND	50.00	47.99	96	49.40	99	71-137	3	0-20	
1,1,1-Trichloroethane	ND	50.00	46.22	92	50.82	102	75-136	9	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	38.06	76	40.51	81	42-168	6	0-22	
1,1,2-Trichloroethane	ND	50.00	48.97	98	52.17	104	75-125	6	0-20	
Trichloroethene	ND	50.00	48.69	97	52.26	105	67-139	7	0-20	
Trichlorofluoromethane	ND	50.00	44.21	88	44.79	90	59-155	1	0-20	
1,2,3-Trichloropropane	ND	50.00	49.42	99	51.04	102	75-127	3	0-20	
1,2,4-Trimethylbenzene	ND	50.00	48.46	97	51.21	102	75-133	6	0-20	
1,3,5-Trimethylbenzene	ND	50.00	49.06	98	52.04	104	75-135	6	0-20	
Vinyl Acetate	ND	50.00	26.84	54	27.24	54	54-180	1	0-25	
Vinyl Chloride	ND	50.00	50.28	101	51.48	103	51-153	2	0-20	
p/m-Xylene	ND	100.0	99.85	100	105.8	106	75-133	6	0-20	
o-Xylene	ND	50.00	50.88	102	53.86	108	75-134	6	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	47.79	96	50.93	102	64-136	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-3669	LCS	Aqueous	GC/MS JJ	10/12/17	10/12/17 21:53	171012L036
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	52.47	105	50-150	33-167	
Benzene	50.00	52.03	104	78-120	71-127	
Bromobenzene	50.00	51.50	103	80-120	73-127	
Bromochloromethane	50.00	53.41	107	77-125	69-133	
Bromodichloromethane	50.00	48.37	97	80-125	72-132	
Bromoform	50.00	32.57	65	68-128	58-138	ME
Bromomethane	50.00	43.60	87	50-150	33-167	
2-Butanone	50.00	49.17	98	53-137	39-151	
n-Butylbenzene	50.00	49.17	98	78-132	69-141	
sec-Butylbenzene	50.00	49.92	100	80-125	72-132	
tert-Butylbenzene	50.00	48.17	96	80-125	72-132	
Carbon Disulfide	50.00	50.99	102	50-150	33-167	
Carbon Tetrachloride	50.00	43.59	87	67-139	55-151	
Chlorobenzene	50.00	49.74	99	80-120	73-127	
Chloroethane	50.00	49.74	99	64-130	53-141	
Chloroform	50.00	49.01	98	77-120	70-127	
Chloromethane	50.00	41.06	82	56-128	44-140	
2-Chlorotoluene	50.00	51.93	104	80-121	73-128	
4-Chlorotoluene	50.00	50.06	100	80-120	73-127	
Dibromochloromethane	50.00	41.76	84	77-125	69-133	
1,2-Dibromo-3-Chloropropane	50.00	45.34	91	68-128	58-138	
1,2-Dibromoethane	50.00	51.18	102	80-120	73-127	
Dibromomethane	50.00	48.52	97	80-120	73-127	
1,2-Dichlorobenzene	50.00	49.53	99	80-120	73-127	
1,3-Dichlorobenzene	50.00	49.12	98	80-120	73-127	
1,4-Dichlorobenzene	50.00	48.56	97	80-120	73-127	
Dichlorodifluoromethane	50.00	37.06	74	50-150	33-167	
1,1-Dichloroethane	50.00	50.10	100	73-127	64-136	
1,2-Dichloroethane	50.00	50.65	101	75-123	67-131	
1,1-Dichloroethene	50.00	50.64	101	64-136	52-148	
c-1,2-Dichloroethene	50.00	48.82	98	78-120	71-127	
t-1,2-Dichloroethene	50.00	51.30	103	70-130	60-140	
1,2-Dichloropropane	50.00	50.42	101	80-120	73-127	
1,3-Dichloropropane	50.00	50.58	101	80-120	73-127	
2,2-Dichloropropane	50.00	39.73	79	53-155	36-172	
1,1-Dichloropropene	50.00	49.99	100	73-127	64-136	
c-1,3-Dichloropropene	50.00	47.88	96	80-129	72-137	
t-1,3-Dichloropropene	50.00	48.86	98	78-132	69-141	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Ethylbenzene	50.00	51.62	103	80-120	73-127	
2-Hexanone	50.00	49.27	99	59-131	47-143	
Isopropylbenzene	50.00	51.66	103	80-126	72-134	
p-Isopropyltoluene	50.00	49.13	98	80-129	72-137	
Methylene Chloride	50.00	49.83	100	73-127	64-136	
4-Methyl-2-Pentanone	50.00	48.97	98	68-122	59-131	
Naphthalene	50.00	47.76	96	64-136	52-148	
n-Propylbenzene	50.00	51.26	103	80-125	72-132	
Styrene	50.00	51.77	104	80-122	73-129	
1,1,1,2-Tetrachloroethane	50.00	47.14	94	80-126	72-134	
1,1,2,2-Tetrachloroethane	50.00	48.91	98	76-120	69-127	
Tetrachloroethene	50.00	76.14	152	54-144	39-159	ME
Toluene	50.00	51.35	103	80-122	73-129	
1,2,3-Trichlorobenzene	50.00	47.10	94	76-130	67-139	
1,2,4-Trichlorobenzene	50.00	47.49	95	74-134	64-144	
1,1,1-Trichloroethane	50.00	48.34	97	73-127	64-136	
Hexachloro-1,3-Butadiene	50.00	47.67	95	75-135	65-145	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	52.06	104	53-155	36-172	
1,1,2-Trichloroethane	50.00	50.45	101	80-120	73-127	
Trichloroethene	50.00	50.10	100	77-125	69-133	
Trichlorofluoromethane	50.00	50.37	101	69-141	57-153	
1,2,3-Trichloropropane	50.00	49.98	100	77-125	69-133	
1,2,4-Trimethylbenzene	50.00	49.09	98	80-123	73-130	
1,3,5-Trimethylbenzene	50.00	51.32	103	80-126	72-134	
Vinyl Acetate	50.00	24.51	49	50-150	33-167	ME
Vinyl Chloride	50.00	49.03	98	63-135	51-147	
p/m-Xylene	100.0	103.7	104	80-125	72-132	
o-Xylene	50.00	52.53	105	80-125	72-132	
Methyl-t-Butyl Ether (MTBE)	50.00	49.01	98	77-120	70-127	

Total number of LCS compounds: 67

Total number of ME compounds: 3

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-858	LCS	Solid	GC/MS LL	10/13/17	10/13/17 10:25	171013L009
099-14-312-858	LCSD	Solid	GC/MS LL	10/13/17	10/13/17 10:54	171013L009

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	52.59	105	53.20	106	30-150	10-170	1	0-20	
Benzene	50.00	48.99	98	49.40	99	79-120	72-127	1	0-20	
Bromobenzene	50.00	50.63	101	51.26	103	80-120	73-127	1	0-20	
Bromochloromethane	50.00	55.08	110	56.61	113	80-120	73-127	3	0-20	
Bromodichloromethane	50.00	53.22	106	54.20	108	73-127	64-136	2	0-20	
Bromoform	50.00	50.67	101	50.91	102	55-133	42-146	0	0-20	
Bromomethane	50.00	58.02	116	56.57	113	36-144	18-162	3	0-20	
2-Butanone	50.00	48.07	96	51.40	103	56-176	36-196	7	0-20	
n-Butylbenzene	50.00	52.16	104	51.50	103	78-126	70-134	1	0-20	
sec-Butylbenzene	50.00	54.65	109	54.53	109	79-127	71-135	0	0-20	
tert-Butylbenzene	50.00	53.97	108	53.42	107	80-128	72-136	1	0-20	
Carbon Disulfide	50.00	47.70	95	48.33	97	53-125	41-137	1	0-20	
Carbon Tetrachloride	50.00	48.16	96	48.90	98	58-142	44-156	2	0-20	
Chlorobenzene	50.00	49.75	100	50.34	101	80-120	73-127	1	0-20	
Chloroethane	50.00	42.81	86	44.13	88	60-120	50-130	3	0-20	
Chloroform	50.00	50.09	100	50.51	101	80-120	73-127	1	0-20	
Chloromethane	50.00	41.66	83	42.91	86	50-122	38-134	3	0-20	
2-Chlorotoluene	50.00	51.15	102	52.12	104	80-125	72-132	2	0-20	
4-Chlorotoluene	50.00	52.31	105	52.25	105	80-120	73-127	0	0-20	
Dibromochloromethane	50.00	49.89	100	50.54	101	70-130	60-140	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	49.05	98	50.30	101	54-132	41-145	3	0-20	
1,2-Dibromoethane	50.00	53.99	108	54.27	109	80-120	73-127	1	0-20	
Dibromomethane	50.00	50.94	102	52.08	104	80-122	73-129	2	0-20	
1,2-Dichlorobenzene	50.00	50.82	102	51.51	103	80-120	73-127	1	0-20	
1,3-Dichlorobenzene	50.00	52.62	105	52.12	104	80-120	73-127	1	0-20	
1,4-Dichlorobenzene	50.00	51.60	103	51.58	103	80-120	73-127	0	0-20	
Dichlorodifluoromethane	50.00	33.87	68	34.82	70	32-158	11-179	3	0-20	
1,1-Dichloroethane	50.00	50.48	101	51.05	102	74-120	66-128	1	0-20	
1,2-Dichloroethane	50.00	46.96	94	48.04	96	79-121	72-128	2	0-20	
1,1-Dichloroethene	50.00	49.28	99	49.46	99	71-125	62-134	0	0-20	
c-1,2-Dichloroethene	50.00	51.10	102	51.56	103	80-123	73-130	1	0-20	
t-1,2-Dichloroethene	50.00	51.39	103	52.37	105	80-120	73-127	2	0-20	
1,2-Dichloropropane	50.00	50.31	101	51.27	103	77-120	70-127	2	0-20	
1,3-Dichloropropane	50.00	48.90	98	50.31	101	80-120	73-127	3	0-20	
2,2-Dichloropropane	50.00	48.19	96	47.88	96	58-142	44-156	1	0-20	
1,1-Dichloropropene	50.00	49.52	99	50.37	101	69-120	60-128	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	47.52	95	48.66	97	74-128	65-137	2	0-20	
t-1,3-Dichloropropene	50.00	47.59	95	47.87	96	66-120	57-129	1	0-20	
Ethylbenzene	50.00	51.29	103	51.98	104	80-120	73-127	1	0-20	
2-Hexanone	50.00	39.40	79	40.48	81	67-151	53-165	3	0-20	
Isopropylbenzene	50.00	52.94	106	53.27	107	80-129	72-137	1	0-20	
p-Isopropyltoluene	50.00	53.68	107	53.08	106	80-122	73-129	1	0-20	
Methylene Chloride	50.00	50.66	101	52.31	105	72-120	64-128	3	0-20	
4-Methyl-2-Pentanone	50.00	45.42	91	47.66	95	72-126	63-135	5	0-20	
Naphthalene	50.00	39.70	79	40.54	81	64-124	54-134	2	0-20	
n-Propylbenzene	50.00	51.80	104	52.15	104	80-122	73-129	1	0-20	
Styrene	50.00	50.43	101	51.11	102	80-123	73-130	1	0-20	
1,1,1,2-Tetrachloroethane	50.00	54.02	108	53.71	107	73-133	63-143	1	0-20	
1,1,2,2-Tetrachloroethane	50.00	51.84	104	53.01	106	77-120	70-127	2	0-20	
Tetrachloroethene	50.00	56.87	114	58.65	117	75-123	67-131	3	0-20	
Toluene	50.00	50.13	100	50.82	102	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	45.59	91	46.36	93	73-127	64-136	2	0-20	
1,2,4-Trichlorobenzene	50.00	47.23	94	47.25	94	74-128	65-137	0	0-20	
1,1,1-Trichloroethane	50.00	48.95	98	49.65	99	71-131	61-141	1	0-20	
1,1,2-Trichloroethane	50.00	48.27	97	49.65	99	80-120	73-127	3	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	52.34	105	52.65	105	77-125	69-133	1	0-20	
Trichloroethene	50.00	48.69	97	49.44	99	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	49.43	99	50.65	101	70-136	59-147	2	0-20	
1,2,3-Trichloropropane	50.00	47.41	95	48.83	98	60-120	50-130	3	0-20	
1,2,4-Trimethylbenzene	50.00	50.40	101	50.33	101	75-123	67-131	0	0-20	
1,3,5-Trimethylbenzene	50.00	50.22	100	51.25	102	80-123	73-130	2	0-20	
Vinyl Acetate	50.00	45.06	90	44.86	90	51-159	33-177	0	0-20	
Vinyl Chloride	50.00	43.74	87	44.62	89	68-120	59-129	2	0-20	
p/m-Xylene	100.0	99.37	99	100.4	100	80-122	73-129	1	0-20	
o-Xylene	50.00	50.49	101	51.06	102	79-127	71-135	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	44.90	90	46.34	93	64-124	54-134	3	0-20	

Total number of LCS compounds: 66

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-862	LCS	Solid	GC/MS LL	10/14/17	10/14/17 11:28	171014L006
099-14-312-862	LCSD	Solid	GC/MS LL	10/14/17	10/14/17 11:57	171014L006

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	58.36	117	52.84	106	30-150	10-170	10	0-20	
Benzene	50.00	50.70	101	50.29	101	79-120	72-127	1	0-20	
Bromobenzene	50.00	49.65	99	49.95	100	80-120	73-127	1	0-20	
Bromochloromethane	50.00	57.09	114	56.93	114	80-120	73-127	0	0-20	
Bromodichloromethane	50.00	53.86	108	54.82	110	73-127	64-136	2	0-20	
Bromoform	50.00	48.09	96	51.27	103	55-133	42-146	6	0-20	
Bromomethane	50.00	59.38	119	56.05	112	36-144	18-162	6	0-20	
2-Butanone	50.00	52.39	105	57.47	115	56-176	36-196	9	0-20	
n-Butylbenzene	50.00	54.38	109	52.01	104	78-126	70-134	4	0-20	
sec-Butylbenzene	50.00	54.89	110	54.13	108	79-127	71-135	1	0-20	
tert-Butylbenzene	50.00	53.87	108	53.01	106	80-128	72-136	2	0-20	
Carbon Disulfide	50.00	47.04	94	45.95	92	53-125	41-137	2	0-20	
Carbon Tetrachloride	50.00	51.09	102	49.15	98	58-142	44-156	4	0-20	
Chlorobenzene	50.00	50.20	100	50.10	100	80-120	73-127	0	0-20	
Chloroethane	50.00	42.01	84	40.01	80	60-120	50-130	5	0-20	
Chloroform	50.00	53.31	107	53.42	107	80-120	73-127	0	0-20	
Chloromethane	50.00	39.50	79	37.42	75	50-122	38-134	5	0-20	
2-Chlorotoluene	50.00	51.17	102	50.49	101	80-125	72-132	1	0-20	
4-Chlorotoluene	50.00	52.07	104	51.98	104	80-120	73-127	0	0-20	
Dibromochloromethane	50.00	50.88	102	52.54	105	70-130	60-140	3	0-20	
1,2-Dibromo-3-Chloropropane	50.00	46.56	93	50.37	101	54-132	41-145	8	0-20	
1,2-Dibromoethane	50.00	53.88	108	55.92	112	80-120	73-127	4	0-20	
Dibromomethane	50.00	51.27	103	53.07	106	80-122	73-129	3	0-20	
1,2-Dichlorobenzene	50.00	50.88	102	51.50	103	80-120	73-127	1	0-20	
1,3-Dichlorobenzene	50.00	51.92	104	51.67	103	80-120	73-127	0	0-20	
1,4-Dichlorobenzene	50.00	51.53	103	51.48	103	80-120	73-127	0	0-20	
Dichlorodifluoromethane	50.00	34.61	69	31.62	63	32-158	11-179	9	0-20	
1,1-Dichloroethane	50.00	53.55	107	53.70	107	74-120	66-128	0	0-20	
1,2-Dichloroethane	50.00	48.95	98	49.91	100	79-121	72-128	2	0-20	
1,1-Dichloroethene	50.00	50.39	101	50.44	101	71-125	62-134	0	0-20	
c-1,2-Dichloroethene	50.00	53.61	107	53.95	108	80-123	73-130	1	0-20	
t-1,2-Dichloroethene	50.00	55.35	111	53.96	108	80-120	73-127	3	0-20	
1,2-Dichloropropane	50.00	52.42	105	52.56	105	77-120	70-127	0	0-20	
1,3-Dichloropropane	50.00	50.51	101	52.79	106	80-120	73-127	4	0-20	
2,2-Dichloropropane	50.00	50.21	100	49.06	98	58-142	44-156	2	0-20	
1,1-Dichloropropene	50.00	52.57	105	51.78	104	69-120	60-128	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/09/17
Work Order: 17-10-0625
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	48.16	96	48.27	97	74-128	65-137	0	0-20	
t-1,3-Dichloropropene	50.00	47.62	95	48.91	98	66-120	57-129	3	0-20	
Ethylbenzene	50.00	51.56	103	50.73	101	80-120	73-127	2	0-20	
2-Hexanone	50.00	38.33	77	41.69	83	67-151	53-165	8	0-20	
Isopropylbenzene	50.00	52.47	105	51.75	103	80-129	72-137	1	0-20	
p-Isopropyltoluene	50.00	54.66	109	52.92	106	80-122	73-129	3	0-20	
Methylene Chloride	50.00	51.27	103	51.98	104	72-120	64-128	1	0-20	
4-Methyl-2-Pentanone	50.00	45.16	90	49.13	98	72-126	63-135	8	0-20	
Naphthalene	50.00	42.53	85	45.25	91	64-124	54-134	6	0-20	
n-Propylbenzene	50.00	51.87	104	50.57	101	80-122	73-129	3	0-20	
Styrene	50.00	49.65	99	49.52	99	80-123	73-130	0	0-20	
1,1,1,2-Tetrachloroethane	50.00	54.45	109	54.77	110	73-133	63-143	1	0-20	
1,1,2,2-Tetrachloroethane	50.00	50.93	102	53.95	108	77-120	70-127	6	0-20	
Tetrachloroethene	50.00	59.30	119	59.65	119	75-123	67-131	1	0-20	
Toluene	50.00	49.53	99	49.19	98	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	50.22	100	50.82	102	73-127	64-136	1	0-20	
1,2,4-Trichlorobenzene	50.00	51.11	102	51.84	104	74-128	65-137	1	0-20	
1,1,1-Trichloroethane	50.00	51.66	103	50.99	102	71-131	61-141	1	0-20	
1,1,2-Trichloroethane	50.00	51.21	102	53.34	107	80-120	73-127	4	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	54.92	110	54.81	110	77-125	69-133	0	0-20	
Trichloroethene	50.00	51.70	103	51.19	102	80-120	73-127	1	0-20	
Trichlorofluoromethane	50.00	51.73	103	48.97	98	70-136	59-147	5	0-20	
1,2,3-Trichloropropane	50.00	45.62	91	48.40	97	60-120	50-130	6	0-20	
1,2,4-Trimethylbenzene	50.00	51.30	103	50.76	102	75-123	67-131	1	0-20	
1,3,5-Trimethylbenzene	50.00	51.24	102	50.29	101	80-123	73-130	2	0-20	
Vinyl Acetate	50.00	45.84	92	46.60	93	51-159	33-177	2	0-20	
Vinyl Chloride	50.00	41.79	84	40.44	81	68-120	59-129	3	0-20	
p/m-Xylene	100.0	99.05	99	97.51	98	80-122	73-129	2	0-20	
o-Xylene	50.00	49.96	100	49.70	99	79-127	71-135	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	47.39	95	49.97	100	64-124	54-134	5	0-20	

Total number of LCS compounds: 66

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Sample Analysis Summary Report

Work Order: 17-10-0625

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8260B	EPA 5035	867	GC/MS LL	2
EPA 8260B	EPA 5030C	1135	GC/MS JJ	2


Return to Contents

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 17-10-0625

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



CalScience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

Date 10/09/2017
Page 1 of 1

WO NO. / LAB USE ONLY

17-10-0625

LABORATORY CLIENT: Geosyntec Consultants		P.O. NO.: HR1305D-01	
ADDRESS: 2100 Main St, #150		LAB CONTACT OR QUOTE NO.: Stephen Nowak	
CITY: Huntington Beach	STATE: CA	PROJECT CONTACT: Goodwin Wharton	
TEL: 714-465-1258	E-MAIL: Goodwin@geosyntec.com	ZIP: 92648	
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):		GLOBAL ID: _____	
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD ☐ COELT EDF ☐ OTHER		LOG CODE: _____	
SPECIAL INSTRUCTIONS:		REQUESTED ANALYSES Please check box or fill in blank as needed.	

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Field		ANALYSES													
		DATE	TIME			Unpreserved	Preserved	TPH(g) □ GRO	TPH(d) □ DRO	TPH □ C6-C36 □ C6-C44	TPH	BTEX / MTBE □ 8260 □	VOCs (8260)	Oxygenates (8260)	Prep (5035) □ En Core □ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs □ 8270 □ 8270 SIM	T22 Metals □ 6010/747X □ 6020/747X	Cr(VI) □ 7196 □ 7199 □ 218.6
1	NP-1-12	10/9/17	09:20	S	4	☒	☒														
2	NP-1-22	10/9/17	09:40	S	4	☒	☒														
3	NP-1-30	10/9/17	10:15	S	4	☒	☒														
4	NP-1-67	10/9/17	10:45	S	4	☒	☒														
5	NP-1-88	10/9/17	11:40	S	4	☒	☒														
6	EB-NP-1	10/9/17	14:55	L	2	☒	☒														

Relinquished by: (Signature) *Goodwin Wharton*

Relinquished by: (Signature) *Jeff Chedler*

Relinquished by: (Signature) _____

Received by: (Signature/Affiliation) *Jeff Chedler*

Received by: (Signature/Affiliation) *Goodwin Wharton*

Received by: (Signature/Affiliation) _____

Date: **10/9/17** Time: **1513**

Date: **10/9/17** Time: **1755**

Date: _____ Time: _____

Date: **10/9/17** Time: **1513**

Date: **10/9/17** Time: **1755**

Date: _____ Time: _____

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1CLIENT: GeosyntecDATE: 10/9/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.4°C); Temperature (w/o CF): 2.6 °C (w/ CF): 2.2 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 1091

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 1091Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 1053

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/ASamples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace ☐ Yes ☒ No ☐ N/A☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☒ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB ☐ 125PB_{znna} (pH__9)☐ 250AGB ☐ 250CGB ☐ 250CGB_s (pH__2) ☐ 250PB ☐ 250PB_n (pH__2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s (pH__2) ☐ 500PB☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s (pH__2) ☐ 1AGB_s (O&G) ☐ 1PB ☐ 1PB_{na} (pH__12) ☐ _____ ☐ _____Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® (____) ☒ TerraCores® (3) ☒ 2 oz PJ ☐ _____ ☐ _____Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (____): ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1053s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄·H₂O, znna = Zn (CH₃CO₂)₂ + NaOHReviewed by: 689

SAMPLE ANOMALY REPORT

DATE: 10 / 9 / 2017

SAMPLES, CONTAINERS, AND LABELS:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired (list client or ECI sample ID and analysis)
- ☐ Insufficient sample amount for requested analysis (list analysis)
- ☐ Improper container(s) used (list analysis)
- ☐ Improper preservative used (list analysis)
- ☐ pH outside acceptable range (list analysis)
- ☐ No preservative noted on COC or label (list analysis and notify lab)
- ☐ Sample container(s) not labeled
- ☐ Client sample label(s) illegible (list container type and analysis)
- ☐ Client sample label(s) do not match COC (comment)
 - ☐ Project information
 - ☐ Client sample ID
 - ☐ Sampling date and/or time
 - ☐ Number of container(s)
 - ☐ Requested analysis
- ☐ Sample container(s) compromised (comment)
 - ☐ Broken
 - ☐ Water present in sample container
- ☐ Air sample container(s) compromised (comment)
 - ☐ Flat
 - ☐ Very low in volume
 - ☐ Leaking (not transferred; duplicate bag submitted)
 - ☐ Leaking (transferred into ECI Tedlar™ bags*)
 - ☐ Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

MISCELLANEOUS: (Describe)

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**
6	B	2			

Comments: _____

** Record the total number of containers (i.e., vials or bottles) for the affected sample.

Comments

Comments

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Reported by: 1053
Reviewed by: 619



Supplemental Report 1

The original report has been revised/corrected.

**WORK ORDER NUMBER: 17-10-0707***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** Geosyntec Consultants**Client Project Name:** 777 N. Front Street / HR1305D-01**Attention:** Goodwin Wharton
2100 Main Street
Suite 150
Huntington Beach, CA 92648-2460

Approved for release on 11/14/2017 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 17-10-0707

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Work Order Narrative

Work Order: 17-10-0707

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/10/17. They were assigned to Work Order 17-10-0707.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Calscience

Sample Summary

Client:	Geosyntec Consultants	Work Order:	17-10-0707
	2100 Main Street, Suite 150	Project Name:	777 N. Front Street / HR1305D-01
	Huntington Beach, CA 92648-2460	PO Number:	
		Date/Time Received:	10/10/17 17:40
		Number of Containers:	26
Attn:	Goodwin Wharton		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
NP-2-6	17-10-0707-1	10/09/17 16:25	4	Solid
NP-2-28	17-10-0707-2	10/09/17 16:45	4	Solid
NP-2-36	17-10-0707-3	10/09/17 17:00	4	Solid
NP-2-50	17-10-0707-4	10/10/17 08:25	4	Solid
NP-2-80	17-10-0707-5	10/10/17 09:55	4	Solid
EB-NP-2	17-10-0707-6	10/10/17 14:05	2	Aqueous
NP-3-12	17-10-0707-7	10/10/17 14:20	4	Solid


Return to Contents



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Detections Summary

Client: Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Work Order: 17-10-0707
Project Name: 777 N. Front Street / HR1305D-01
Received: 10/10/17

Attn: Goodwin Wharton

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
NP-2-6 (17-10-0707-1)						
Acetone	27	J	6.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.17	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	30		0.97	ug/kg	EPA 8260B	EPA 5035
NP-2-28 (17-10-0707-2)						
Acetone	7.0	J	5.5*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.20	J	0.11*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	26		0.88	ug/kg	EPA 8260B	EPA 5035
NP-2-36 (17-10-0707-3)						
Acetone	6.6	J	5.4*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.2		0.87	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	110		0.87	ug/kg	EPA 8260B	EPA 5035
Toluene	0.58	J	0.45*	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	0.69	J	0.26*	ug/kg	EPA 8260B	EPA 5035
NP-2-50 (17-10-0707-4)						
Acetone	6.1	J	5.6*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.1		0.90	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	65		0.90	ug/kg	EPA 8260B	EPA 5035
Toluene	0.50	J	0.46*	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	0.33	J	0.27*	ug/kg	EPA 8260B	EPA 5035
NP-2-80 (17-10-0707-5)						
Acetone	5.8	J	5.7*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.27	J	0.12*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	12		0.91	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	0.29	J	0.27*	ug/kg	EPA 8260B	EPA 5035
NP-3-12 (17-10-0707-7)						
Acetone	8.3	J	6.2*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.19	J	0.13*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	91		1.0	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	0.31	J	0.30*	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-NP-2	17-10-0707-6-A	10/10/17 14:05	Aqueous	GC/MS WW	10/16/17	10/16/17 16:49	171016L006

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	92	78-120	
Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	108	80-129	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-316-3677	N/A	Aqueous	GC/MS WW	10/16/17	10/16/17 11:30	171016L006

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	92	78-120	
Dibromofluoromethane	97	80-126	
1,2-Dichloroethane-d4	99	80-129	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-2-6	17-10-0707-1-C	10/09/17 16:25	Solid	GC/MS LL	10/09/17	10/12/17 13:18	171012L010

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	27	48	6.0	1.00	J
Benzene	0.17	0.97	0.13	1.00	J
Bromobenzene	ND	0.97	0.20	1.00	
Bromochloromethane	ND	1.9	0.67	1.00	
Bromodichloromethane	ND	0.97	0.23	1.00	
Bromoform	ND	4.8	0.77	1.00	
Bromomethane	ND	19	9.1	1.00	
2-Butanone	ND	19	3.6	1.00	
n-Butylbenzene	ND	0.97	0.15	1.00	
sec-Butylbenzene	ND	0.97	0.56	1.00	
tert-Butylbenzene	ND	0.97	0.15	1.00	
Carbon Disulfide	ND	9.7	0.30	1.00	
Carbon Tetrachloride	ND	0.97	0.27	1.00	
Chlorobenzene	ND	0.97	0.22	1.00	
Chloroethane	ND	1.9	1.4	1.00	
Chloroform	ND	0.97	0.23	1.00	
Chloromethane	ND	19	0.29	1.00	
2-Chlorotoluene	ND	0.97	0.22	1.00	
4-Chlorotoluene	ND	0.97	0.21	1.00	
Dibromochloromethane	ND	1.9	0.55	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.8	1.7	1.00	
1,2-Dibromoethane	ND	0.97	0.25	1.00	
Dibromomethane	ND	0.97	0.75	1.00	
1,2-Dichlorobenzene	ND	0.97	0.22	1.00	
1,3-Dichlorobenzene	ND	0.97	0.17	1.00	
1,4-Dichlorobenzene	ND	0.97	0.21	1.00	
Dichlorodifluoromethane	ND	1.9	0.43	1.00	
1,1-Dichloroethane	ND	0.97	0.20	1.00	
1,2-Dichloroethane	ND	0.97	0.30	1.00	
1,1-Dichloroethene	ND	0.97	0.33	1.00	
c-1,2-Dichloroethene	ND	0.97	0.27	1.00	
t-1,2-Dichloroethene	ND	0.97	0.49	1.00	
1,2-Dichloropropane	ND	0.97	0.42	1.00	
1,3-Dichloropropane	ND	0.97	0.24	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.8	0.32	1.00	
1,1-Dichloropropene	ND	1.9	0.32	1.00	
c-1,3-Dichloropropene	ND	0.97	0.25	1.00	
t-1,3-Dichloropropene	ND	1.9	0.59	1.00	
Ethylbenzene	ND	0.97	0.15	1.00	
2-Hexanone	ND	19	1.7	1.00	
Isopropylbenzene	ND	0.97	0.53	1.00	
p-Isopropyltoluene	ND	0.97	0.61	1.00	
Methylene Chloride	ND	9.7	1.3	1.00	
4-Methyl-2-Pentanone	ND	19	4.2	1.00	
Naphthalene	ND	9.7	0.79	1.00	
n-Propylbenzene	ND	1.9	0.49	1.00	
Styrene	ND	0.97	0.58	1.00	
1,1,1,2-Tetrachloroethane	ND	0.97	0.23	1.00	
1,1,2,2-Tetrachloroethane	ND	1.9	0.33	1.00	
Tetrachloroethene	30	0.97	0.20	1.00	
Toluene	ND	0.97	0.50	1.00	
1,2,3-Trichlorobenzene	ND	1.9	0.88	1.00	
1,2,4-Trichlorobenzene	ND	1.9	0.30	1.00	
1,1,1-Trichloroethane	ND	0.97	0.22	1.00	
1,1,2-Trichloroethane	ND	0.97	0.34	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.7	0.34	1.00	
Trichloroethene	ND	1.9	0.29	1.00	
Trichlorofluoromethane	ND	9.7	0.36	1.00	
1,2,3-Trichloropropane	ND	1.9	0.80	1.00	
1,2,4-Trimethylbenzene	ND	1.9	0.57	1.00	
1,3,5-Trimethylbenzene	ND	1.9	0.53	1.00	
Vinyl Acetate	ND	9.7	4.6	1.00	
Vinyl Chloride	ND	0.97	0.49	1.00	
p/m-Xylene	ND	1.9	0.26	1.00	
o-Xylene	ND	0.97	0.54	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.29	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-2-28	17-10-0707-2-C	10/09/17 16:45	Solid	GC/MS LL	10/09/17	10/12/17 13:47	171012L010

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	7.0	44	5.5	1.00	J
Benzene	0.20	0.88	0.11	1.00	J
Bromobenzene	ND	0.88	0.18	1.00	
Bromochloromethane	ND	1.8	0.61	1.00	
Bromodichloromethane	ND	0.88	0.20	1.00	
Bromoform	ND	4.4	0.70	1.00	
Bromomethane	ND	18	8.3	1.00	
2-Butanone	ND	18	3.3	1.00	
n-Butylbenzene	ND	0.88	0.14	1.00	
sec-Butylbenzene	ND	0.88	0.51	1.00	
tert-Butylbenzene	ND	0.88	0.13	1.00	
Carbon Disulfide	ND	8.8	0.27	1.00	
Carbon Tetrachloride	ND	0.88	0.25	1.00	
Chlorobenzene	ND	0.88	0.20	1.00	
Chloroethane	ND	1.8	1.3	1.00	
Chloroform	ND	0.88	0.21	1.00	
Chloromethane	ND	18	0.27	1.00	
2-Chlorotoluene	ND	0.88	0.20	1.00	
4-Chlorotoluene	ND	0.88	0.19	1.00	
Dibromochloromethane	ND	1.8	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	1.00	
1,2-Dibromoethane	ND	0.88	0.22	1.00	
Dibromomethane	ND	0.88	0.68	1.00	
1,2-Dichlorobenzene	ND	0.88	0.20	1.00	
1,3-Dichlorobenzene	ND	0.88	0.15	1.00	
1,4-Dichlorobenzene	ND	0.88	0.20	1.00	
Dichlorodifluoromethane	ND	1.8	0.39	1.00	
1,1-Dichloroethane	ND	0.88	0.19	1.00	
1,2-Dichloroethane	ND	0.88	0.28	1.00	
1,1-Dichloroethene	ND	0.88	0.30	1.00	
c-1,2-Dichloroethene	ND	0.88	0.25	1.00	
t-1,2-Dichloroethene	ND	0.88	0.44	1.00	
1,2-Dichloropropane	ND	0.88	0.39	1.00	
1,3-Dichloropropane	ND	0.88	0.22	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	1.00	
1,1-Dichloropropene	ND	1.8	0.29	1.00	
c-1,3-Dichloropropene	ND	0.88	0.22	1.00	
t-1,3-Dichloropropene	ND	1.8	0.53	1.00	
Ethylbenzene	ND	0.88	0.13	1.00	
2-Hexanone	ND	18	1.5	1.00	
Isopropylbenzene	ND	0.88	0.48	1.00	
p-Isopropyltoluene	ND	0.88	0.55	1.00	
Methylene Chloride	ND	8.8	1.2	1.00	
4-Methyl-2-Pentanone	ND	18	3.8	1.00	
Naphthalene	ND	8.8	0.72	1.00	
n-Propylbenzene	ND	1.8	0.44	1.00	
Styrene	ND	0.88	0.53	1.00	
1,1,1,2-Tetrachloroethane	ND	0.88	0.21	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	0.30	1.00	
Tetrachloroethene	26	0.88	0.18	1.00	
Toluene	ND	0.88	0.45	1.00	
1,2,3-Trichlorobenzene	ND	1.8	0.80	1.00	
1,2,4-Trichlorobenzene	ND	1.8	0.27	1.00	
1,1,1-Trichloroethane	ND	0.88	0.20	1.00	
1,1,2-Trichloroethane	ND	0.88	0.31	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.8	0.31	1.00	
Trichloroethene	ND	1.8	0.26	1.00	
Trichlorofluoromethane	ND	8.8	0.33	1.00	
1,2,3-Trichloropropane	ND	1.8	0.73	1.00	
1,2,4-Trimethylbenzene	ND	1.8	0.52	1.00	
1,3,5-Trimethylbenzene	ND	1.8	0.48	1.00	
Vinyl Acetate	ND	8.8	4.2	1.00	
Vinyl Chloride	ND	0.88	0.44	1.00	
p/m-Xylene	ND	1.8	0.24	1.00	
o-Xylene	ND	0.88	0.49	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
1,4-Bromofluorobenzene	99	80-120			
Dibromofluoromethane	108	79-133			
1,2-Dichloroethane-d4	116	71-155			
Toluene-d8	102	80-120			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-2-36	17-10-0707-3-C	10/09/17 17:00	Solid	GC/MS LL	10/09/17	10/12/17 14:15	171012L010

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	6.6	44	5.4	1.00	J
Benzene	1.2	0.87	0.11	1.00	
Bromobenzene	ND	0.87	0.18	1.00	
Bromochloromethane	ND	1.7	0.60	1.00	
Bromodichloromethane	ND	0.87	0.20	1.00	
Bromoform	ND	4.4	0.69	1.00	
Bromomethane	ND	17	8.2	1.00	
2-Butanone	ND	17	3.3	1.00	
n-Butylbenzene	ND	0.87	0.14	1.00	
sec-Butylbenzene	ND	0.87	0.50	1.00	
tert-Butylbenzene	ND	0.87	0.13	1.00	
Carbon Disulfide	ND	8.7	0.27	1.00	
Carbon Tetrachloride	ND	0.87	0.25	1.00	
Chlorobenzene	ND	0.87	0.20	1.00	
Chloroethane	ND	1.7	1.3	1.00	
Chloroform	ND	0.87	0.21	1.00	
Chloromethane	ND	17	0.26	1.00	
2-Chlorotoluene	ND	0.87	0.20	1.00	
4-Chlorotoluene	ND	0.87	0.19	1.00	
Dibromochloromethane	ND	1.7	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	1.00	
1,2-Dibromoethane	ND	0.87	0.22	1.00	
Dibromomethane	ND	0.87	0.67	1.00	
1,2-Dichlorobenzene	ND	0.87	0.20	1.00	
1,3-Dichlorobenzene	ND	0.87	0.15	1.00	
1,4-Dichlorobenzene	ND	0.87	0.19	1.00	
Dichlorodifluoromethane	ND	1.7	0.39	1.00	
1,1-Dichloroethane	ND	0.87	0.18	1.00	
1,2-Dichloroethane	ND	0.87	0.27	1.00	
1,1-Dichloroethene	ND	0.87	0.30	1.00	
c-1,2-Dichloroethene	ND	0.87	0.24	1.00	
t-1,2-Dichloroethene	ND	0.87	0.44	1.00	
1,2-Dichloropropane	ND	0.87	0.38	1.00	
1,3-Dichloropropane	ND	0.87	0.22	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.4	0.29	1.00	
1,1-Dichloropropene	ND	1.7	0.29	1.00	
c-1,3-Dichloropropene	ND	0.87	0.22	1.00	
t-1,3-Dichloropropene	ND	1.7	0.53	1.00	
Ethylbenzene	ND	0.87	0.13	1.00	
2-Hexanone	ND	17	1.5	1.00	
Isopropylbenzene	ND	0.87	0.48	1.00	
p-Isopropyltoluene	ND	0.87	0.55	1.00	
Methylene Chloride	ND	8.7	1.2	1.00	
4-Methyl-2-Pentanone	ND	17	3.8	1.00	
Naphthalene	ND	8.7	0.71	1.00	
n-Propylbenzene	ND	1.7	0.44	1.00	
Styrene	ND	0.87	0.53	1.00	
1,1,1,2-Tetrachloroethane	ND	0.87	0.21	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	0.30	1.00	
Tetrachloroethene	110	0.87	0.18	1.00	
Toluene	0.58	0.87	0.45	1.00	J
1,2,3-Trichlorobenzene	ND	1.7	0.80	1.00	
1,2,4-Trichlorobenzene	ND	1.7	0.27	1.00	
1,1,1-Trichloroethane	ND	0.87	0.20	1.00	
1,1,2-Trichloroethane	ND	0.87	0.31	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.7	0.31	1.00	
Trichloroethene	0.69	1.7	0.26	1.00	J
Trichlorofluoromethane	ND	8.7	0.33	1.00	
1,2,3-Trichloropropane	ND	1.7	0.72	1.00	
1,2,4-Trimethylbenzene	ND	1.7	0.51	1.00	
1,3,5-Trimethylbenzene	ND	1.7	0.48	1.00	
Vinyl Acetate	ND	8.7	4.1	1.00	
Vinyl Chloride	ND	0.87	0.44	1.00	
p/m-Xylene	ND	1.7	0.23	1.00	
o-Xylene	ND	0.87	0.48	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.26	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	113	71-155	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-2-50	17-10-0707-4-C	10/10/17 08:25	Solid	GC/MS LL	10/10/17	10/12/17 14:44	171012L010

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	6.1	45	5.6	1.00	J
Benzene	1.1	0.90	0.12	1.00	
Bromobenzene	ND	0.90	0.19	1.00	
Bromochloromethane	ND	1.8	0.62	1.00	
Bromodichloromethane	ND	0.90	0.21	1.00	
Bromoform	ND	4.5	0.71	1.00	
Bromomethane	ND	18	8.5	1.00	
2-Butanone	ND	18	3.4	1.00	
n-Butylbenzene	ND	0.90	0.14	1.00	
sec-Butylbenzene	ND	0.90	0.52	1.00	
tert-Butylbenzene	ND	0.90	0.14	1.00	
Carbon Disulfide	ND	9.0	0.27	1.00	
Carbon Tetrachloride	ND	0.90	0.25	1.00	
Chlorobenzene	ND	0.90	0.20	1.00	
Chloroethane	ND	1.8	1.3	1.00	
Chloroform	ND	0.90	0.21	1.00	
Chloromethane	ND	18	0.27	1.00	
2-Chlorotoluene	ND	0.90	0.21	1.00	
4-Chlorotoluene	ND	0.90	0.19	1.00	
Dibromochloromethane	ND	1.8	0.51	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.6	1.00	
1,2-Dibromoethane	ND	0.90	0.23	1.00	
Dibromomethane	ND	0.90	0.70	1.00	
1,2-Dichlorobenzene	ND	0.90	0.21	1.00	
1,3-Dichlorobenzene	ND	0.90	0.16	1.00	
1,4-Dichlorobenzene	ND	0.90	0.20	1.00	
Dichlorodifluoromethane	ND	1.8	0.40	1.00	
1,1-Dichloroethane	ND	0.90	0.19	1.00	
1,2-Dichloroethane	ND	0.90	0.28	1.00	
1,1-Dichloroethene	ND	0.90	0.31	1.00	
c-1,2-Dichloroethene	ND	0.90	0.25	1.00	
t-1,2-Dichloroethene	ND	0.90	0.46	1.00	
1,2-Dichloropropane	ND	0.90	0.39	1.00	
1,3-Dichloropropane	ND	0.90	0.23	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	4.5	0.30	1.00	
1,1-Dichloropropene	ND	1.8	0.30	1.00	
c-1,3-Dichloropropene	ND	0.90	0.23	1.00	
t-1,3-Dichloropropene	ND	1.8	0.54	1.00	
Ethylbenzene	ND	0.90	0.14	1.00	
2-Hexanone	ND	18	1.6	1.00	
Isopropylbenzene	ND	0.90	0.49	1.00	
p-Isopropyltoluene	ND	0.90	0.57	1.00	
Methylene Chloride	ND	9.0	1.2	1.00	
4-Methyl-2-Pentanone	ND	18	3.9	1.00	
Naphthalene	ND	9.0	0.73	1.00	
n-Propylbenzene	ND	1.8	0.45	1.00	
Styrene	ND	0.90	0.54	1.00	
1,1,1,2-Tetrachloroethane	ND	0.90	0.22	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	1.00	
Tetrachloroethene	65	0.90	0.19	1.00	
Toluene	0.50	0.90	0.46	1.00	J
1,2,3-Trichlorobenzene	ND	1.8	0.82	1.00	
1,2,4-Trichlorobenzene	ND	1.8	0.28	1.00	
1,1,1-Trichloroethane	ND	0.90	0.20	1.00	
1,1,2-Trichloroethane	ND	0.90	0.32	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.0	0.32	1.00	
Trichloroethene	0.33	1.8	0.27	1.00	J
Trichlorofluoromethane	ND	9.0	0.34	1.00	
1,2,3-Trichloropropane	ND	1.8	0.75	1.00	
1,2,4-Trimethylbenzene	ND	1.8	0.53	1.00	
1,3,5-Trimethylbenzene	ND	1.8	0.49	1.00	
Vinyl Acetate	ND	9.0	4.3	1.00	
Vinyl Chloride	ND	0.90	0.45	1.00	
p/m-Xylene	ND	1.8	0.24	1.00	
o-Xylene	ND	0.90	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-2-80	17-10-0707-5-C	10/10/17 09:55	Solid	GC/MS LL	10/10/17	10/12/17 15:12	171012L010

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	5.8	46	5.7	1.00	J
Benzene	0.27	0.91	0.12	1.00	J
Bromobenzene	ND	0.91	0.19	1.00	
Bromochloromethane	ND	1.8	0.63	1.00	
Bromodichloromethane	ND	0.91	0.21	1.00	
Bromoform	ND	4.6	0.72	1.00	
Bromomethane	ND	18	8.6	1.00	
2-Butanone	ND	18	3.4	1.00	
n-Butylbenzene	ND	0.91	0.14	1.00	
sec-Butylbenzene	ND	0.91	0.53	1.00	
tert-Butylbenzene	ND	0.91	0.14	1.00	
Carbon Disulfide	ND	9.1	0.28	1.00	
Carbon Tetrachloride	ND	0.91	0.26	1.00	
Chlorobenzene	ND	0.91	0.20	1.00	
Chloroethane	ND	1.8	1.4	1.00	
Chloroform	ND	0.91	0.22	1.00	
Chloromethane	ND	18	0.28	1.00	
2-Chlorotoluene	ND	0.91	0.21	1.00	
4-Chlorotoluene	ND	0.91	0.19	1.00	
Dibromochloromethane	ND	1.8	0.52	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.6	1.6	1.00	
1,2-Dibromoethane	ND	0.91	0.23	1.00	
Dibromomethane	ND	0.91	0.71	1.00	
1,2-Dichlorobenzene	ND	0.91	0.21	1.00	
1,3-Dichlorobenzene	ND	0.91	0.16	1.00	
1,4-Dichlorobenzene	ND	0.91	0.20	1.00	
Dichlorodifluoromethane	ND	1.8	0.40	1.00	
1,1-Dichloroethane	ND	0.91	0.19	1.00	
1,2-Dichloroethane	ND	0.91	0.29	1.00	
1,1-Dichloroethene	ND	0.91	0.32	1.00	
c-1,2-Dichloroethene	ND	0.91	0.26	1.00	
t-1,2-Dichloroethene	ND	0.91	0.46	1.00	
1,2-Dichloropropane	ND	0.91	0.40	1.00	
1,3-Dichloropropane	ND	0.91	0.23	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.6	0.30	1.00	
1,1-Dichloropropene	ND	1.8	0.30	1.00	
c-1,3-Dichloropropene	ND	0.91	0.23	1.00	
t-1,3-Dichloropropene	ND	1.8	0.55	1.00	
Ethylbenzene	ND	0.91	0.14	1.00	
2-Hexanone	ND	18	1.6	1.00	
Isopropylbenzene	ND	0.91	0.50	1.00	
p-Isopropyltoluene	ND	0.91	0.57	1.00	
Methylene Chloride	ND	9.1	1.2	1.00	
4-Methyl-2-Pentanone	ND	18	3.9	1.00	
Naphthalene	ND	9.1	0.74	1.00	
n-Propylbenzene	ND	1.8	0.46	1.00	
Styrene	ND	0.91	0.55	1.00	
1,1,1,2-Tetrachloroethane	ND	0.91	0.22	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	0.32	1.00	
Tetrachloroethene	12	0.91	0.19	1.00	
Toluene	ND	0.91	0.47	1.00	
1,2,3-Trichlorobenzene	ND	1.8	0.83	1.00	
1,2,4-Trichlorobenzene	ND	1.8	0.28	1.00	
1,1,1-Trichloroethane	ND	0.91	0.21	1.00	
1,1,2-Trichloroethane	ND	0.91	0.32	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.1	0.32	1.00	
Trichloroethene	0.29	1.8	0.27	1.00	J
Trichlorofluoromethane	ND	9.1	0.34	1.00	
1,2,3-Trichloropropane	ND	1.8	0.76	1.00	
1,2,4-Trimethylbenzene	ND	1.8	0.53	1.00	
1,3,5-Trimethylbenzene	ND	1.8	0.50	1.00	
Vinyl Acetate	ND	9.1	4.3	1.00	
Vinyl Chloride	ND	0.91	0.46	1.00	
p/m-Xylene	ND	1.8	0.24	1.00	
o-Xylene	ND	0.91	0.51	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	101	79-133	
1,2-Dichloroethane-d4	107	71-155	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-3-12	17-10-0707-7-C	10/10/17 14:20	Solid	GC/MS LL	10/10/17	10/12/17 15:41	171012L010

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	8.3	50	6.2	1.00	J
Benzene	0.19	1.0	0.13	1.00	J
Bromobenzene	ND	1.0	0.21	1.00	
Bromochloromethane	ND	2.0	0.69	1.00	
Bromodichloromethane	ND	1.0	0.23	1.00	
Bromoform	ND	5.0	0.79	1.00	
Bromomethane	ND	20	9.4	1.00	
2-Butanone	ND	20	3.8	1.00	
n-Butylbenzene	ND	1.0	0.16	1.00	
sec-Butylbenzene	ND	1.0	0.58	1.00	
tert-Butylbenzene	ND	1.0	0.15	1.00	
Carbon Disulfide	ND	10	0.31	1.00	
Carbon Tetrachloride	ND	1.0	0.28	1.00	
Chlorobenzene	ND	1.0	0.22	1.00	
Chloroethane	ND	2.0	1.5	1.00	
Chloroform	ND	1.0	0.24	1.00	
Chloromethane	ND	20	0.30	1.00	
2-Chlorotoluene	ND	1.0	0.23	1.00	
4-Chlorotoluene	ND	1.0	0.21	1.00	
Dibromochloromethane	ND	2.0	0.57	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1.00	
1,2-Dibromoethane	ND	1.0	0.26	1.00	
Dibromomethane	ND	1.0	0.77	1.00	
1,2-Dichlorobenzene	ND	1.0	0.23	1.00	
1,3-Dichlorobenzene	ND	1.0	0.18	1.00	
1,4-Dichlorobenzene	ND	1.0	0.22	1.00	
Dichlorodifluoromethane	ND	2.0	0.44	1.00	
1,1-Dichloroethane	ND	1.0	0.21	1.00	
1,2-Dichloroethane	ND	1.0	0.31	1.00	
1,1-Dichloroethene	ND	1.0	0.35	1.00	
c-1,2-Dichloroethene	ND	1.0	0.28	1.00	
t-1,2-Dichloroethene	ND	1.0	0.51	1.00	
1,2-Dichloropropane	ND	1.0	0.44	1.00	
1,3-Dichloropropane	ND	1.0	0.25	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	91	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	0.31	2.0	0.30	1.00	J
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	103	79-133	
1,2-Dichloroethane-d4	111	71-155	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-312-856	N/A	Solid	GC/MS LL	10/12/17	10/12/17 11:24	171012L010

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1.00	
Benzene	ND	1.0	0.13	1.00	
Bromobenzene	ND	1.0	0.21	1.00	
Bromochloromethane	ND	2.0	0.69	1.00	
Bromodichloromethane	ND	1.0	0.23	1.00	
Bromoform	ND	5.0	0.79	1.00	
Bromomethane	ND	20	9.4	1.00	
2-Butanone	ND	20	3.8	1.00	
n-Butylbenzene	ND	1.0	0.16	1.00	
sec-Butylbenzene	ND	1.0	0.58	1.00	
tert-Butylbenzene	ND	1.0	0.15	1.00	
Carbon Disulfide	ND	10	0.31	1.00	
Carbon Tetrachloride	ND	1.0	0.28	1.00	
Chlorobenzene	ND	1.0	0.22	1.00	
Chloroethane	ND	2.0	1.5	1.00	
Chloroform	ND	1.0	0.24	1.00	
Chloromethane	ND	20	0.30	1.00	
2-Chlorotoluene	ND	1.0	0.23	1.00	
4-Chlorotoluene	ND	1.0	0.21	1.00	
Dibromochloromethane	ND	2.0	0.57	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1.00	
1,2-Dibromoethane	ND	1.0	0.26	1.00	
Dibromomethane	ND	1.0	0.77	1.00	
1,2-Dichlorobenzene	ND	1.0	0.23	1.00	
1,3-Dichlorobenzene	ND	1.0	0.18	1.00	
1,4-Dichlorobenzene	ND	1.0	0.22	1.00	
Dichlorodifluoromethane	ND	2.0	0.44	1.00	
1,1-Dichloroethane	ND	1.0	0.21	1.00	
1,2-Dichloroethane	ND	1.0	0.31	1.00	
1,1-Dichloroethene	ND	1.0	0.35	1.00	
c-1,2-Dichloroethene	ND	1.0	0.28	1.00	
t-1,2-Dichloroethene	ND	1.0	0.51	1.00	
1,2-Dichloropropane	ND	1.0	0.44	1.00	
1,3-Dichloropropane	ND	1.0	0.25	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	ND	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	95	80-120	
Dibromofluoromethane	101	79-133	
1,2-Dichloroethane-d4	97	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-10-0924-6	Sample	Aqueous	GC/MS WW	10/16/17	10/16/17 12:28	171016S002				
17-10-0924-6	Matrix Spike	Aqueous	GC/MS WW	10/16/17	10/16/17 13:26	171016S002				
17-10-0924-6	Matrix Spike Duplicate	Aqueous	GC/MS WW	10/16/17	10/16/17 13:55	171016S002				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	5000	4545	91	4903	98	50-146	8	0-28	
Benzene	53.02	5000	5304	105	5410	107	75-125	2	0-20	
Bromobenzene	ND	5000	5824	116	5937	119	75-125	2	0-20	
Bromochloromethane	ND	5000	5240	105	5370	107	75-127	2	0-20	
Bromodichloromethane	ND	5000	5797	116	6004	120	75-128	4	0-20	
Bromoform	ND	5000	5866	117	6088	122	69-129	4	0-20	
Bromomethane	ND	5000	6395	128	5853	117	26-176	9	0-40	
2-Butanone	ND	5000	4884	98	4914	98	62-134	1	0-20	
n-Butylbenzene	ND	5000	5610	112	5819	116	75-137	4	0-20	
sec-Butylbenzene	ND	5000	5636	113	5801	116	75-131	3	0-20	
tert-Butylbenzene	ND	5000	5571	111	5725	115	75-133	3	0-20	
Carbon Disulfide	ND	5000	5787	116	5904	118	50-152	2	0-31	
Carbon Tetrachloride	ND	5000	5570	111	5766	115	73-145	3	0-20	
Chlorobenzene	ND	5000	5484	110	5545	111	75-125	1	0-20	
Chloroethane	ND	5000	5105	102	5552	111	59-149	8	0-20	
Chloroform	ND	5000	5225	105	5386	108	75-125	3	0-20	
Chloromethane	ND	5000	6273	125	6808	136	55-145	8	0-20	
2-Chlorotoluene	ND	5000	5765	115	5755	115	75-125	0	0-20	
4-Chlorotoluene	ND	5000	5428	109	5653	113	75-125	4	0-20	
Dibromochloromethane	ND	5000	6135	123	6176	124	75-129	1	0-20	
1,2-Dibromo-3-Chloropropane	ND	5000	5539	111	5464	109	69-135	1	0-20	
1,2-Dibromoethane	ND	5000	5513	110	5364	107	75-125	3	0-20	
Dibromomethane	ND	5000	5271	105	5450	109	75-125	3	0-20	
1,2-Dichlorobenzene	ND	5000	5489	110	5664	113	75-125	3	0-20	
1,3-Dichlorobenzene	ND	5000	5433	109	5600	112	75-125	3	0-20	
1,4-Dichlorobenzene	ND	5000	5418	108	5539	111	75-125	2	0-20	
Dichlorodifluoromethane	ND	5000	5942	119	6236	125	25-169	5	0-20	
1,1-Dichloroethane	154.3	5000	5510	107	5476	106	75-125	1	0-20	
1,2-Dichloroethane	59.23	5000	5624	111	5737	114	75-125	2	0-20	
1,1-Dichloroethene	3610	5000	8474	97	8828	104	64-142	4	0-22	
c-1,2-Dichloroethene	18400	5000	21910	70	22900	90	75-128	4	0-20	3
t-1,2-Dichloroethene	ND	5000	5373	107	5476	110	76-136	2	0-20	
1,2-Dichloropropane	ND	5000	5436	109	5573	111	75-125	2	0-20	
1,3-Dichloropropane	ND	5000	5264	105	5269	105	75-125	0	0-20	
2,2-Dichloropropane	ND	5000	5654	113	5587	112	32-170	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 2 of 2

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	5000	4979	100	5166	103	75-133	4	0-20	
c-1,3-Dichloropropene	ND	5000	5521	110	5613	112	75-133	2	0-20	
t-1,3-Dichloropropene	ND	5000	5783	116	5692	114	74-140	2	0-20	
Ethylbenzene	ND	5000	5538	111	5609	112	75-125	1	0-20	
2-Hexanone	ND	5000	5356	107	4985	100	59-143	7	0-20	
Isopropylbenzene	ND	5000	5763	115	5869	117	75-133	2	0-20	
p-Isopropyltoluene	ND	5000	5746	115	5899	118	75-132	3	0-20	
Methylene Chloride	ND	5000	5677	114	5834	117	75-130	3	0-20	
4-Methyl-2-Pentanone	ND	5000	4825	96	4996	100	66-138	4	0-20	
Naphthalene	ND	5000	4939	99	5274	105	71-131	7	0-20	
n-Propylbenzene	ND	5000	5944	119	5956	119	75-132	0	0-20	
Styrene	ND	5000	5719	114	5668	113	75-132	1	0-40	
1,1,1,2-Tetrachloroethane	ND	5000	6033	121	6061	121	75-130	0	0-20	
1,1,2,2-Tetrachloroethane	ND	5000	5346	107	5397	108	75-131	1	0-20	
Tetrachloroethene	826.9	5000	5366	91	5337	90	59-131	1	0-20	
Toluene	ND	5000	5429	109	5578	112	75-125	3	0-20	
1,2,3-Trichlorobenzene	ND	5000	5424	108	5658	113	75-129	4	0-20	
1,2,4-Trichlorobenzene	ND	5000	5574	111	5786	116	73-133	4	0-20	
1,1,1-Trichloroethane	ND	5000	5364	107	5586	112	75-132	4	0-20	
Hexachloro-1,3-Butadiene	ND	5000	6590	132	6713	134	68-140	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5000	5492	110	5491	110	47-161	0	0-24	
1,1,2-Trichloroethane	141.3	5000	5727	112	5521	108	75-125	4	0-20	
Trichloroethene	5004	5000	10470	109	11040	121	75-130	5	0-20	
Trichlorofluoromethane	ND	5000	6535	131	6711	134	60-162	3	0-20	
1,2,3-Trichloropropane	ND	5000	5338	107	5455	109	75-132	2	0-20	
1,2,4-Trimethylbenzene	ND	5000	5350	107	5527	111	75-126	3	0-20	
1,3,5-Trimethylbenzene	ND	5000	5889	118	5980	120	75-133	2	0-20	
Vinyl Acetate	ND	5000	3515	70	3482	70	20-161	1	0-40	
Vinyl Chloride	551.2	5000	5878	107	6167	112	61-151	5	0-20	
p/m-Xylene	ND	10000	11340	113	11430	114	75-133	1	0-20	
o-Xylene	ND	5000	5704	114	5825	116	75-136	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	5000	4928	99	5115	102	75-128	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - LCS

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-3677	LCS	Aqueous	GC/MS WW	10/16/17	10/16/17 10:04	171016L006
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	53.70	107	50-150	33-167	
Benzene	50.00	45.64	91	78-120	71-127	
Bromobenzene	50.00	51.63	103	80-120	73-127	
Bromochloromethane	50.00	44.84	90	77-125	69-133	
Bromodichloromethane	50.00	49.98	100	80-125	72-132	
Bromoform	50.00	54.15	108	68-128	58-138	
Bromomethane	50.00	49.37	99	50-150	33-167	
2-Butanone	50.00	46.18	92	53-137	39-151	
n-Butylbenzene	50.00	50.09	100	78-132	69-141	
sec-Butylbenzene	50.00	50.12	100	80-125	72-132	
tert-Butylbenzene	50.00	49.37	99	80-125	72-132	
Carbon Disulfide	50.00	50.66	101	50-150	33-167	
Carbon Tetrachloride	50.00	48.94	98	67-139	55-151	
Chlorobenzene	50.00	48.72	97	80-120	73-127	
Chloroethane	50.00	45.75	92	64-130	53-141	
Chloroform	50.00	44.35	89	77-120	70-127	
Chloromethane	50.00	60.73	121	56-128	44-140	
2-Chlorotoluene	50.00	50.09	100	80-121	73-128	
4-Chlorotoluene	50.00	47.54	95	80-120	73-127	
Dibromochloromethane	50.00	53.64	107	77-125	69-133	
1,2-Dibromo-3-Chloropropane	50.00	52.97	106	68-128	58-138	
1,2-Dibromoethane	50.00	49.46	99	80-120	73-127	
Dibromomethane	50.00	45.54	91	80-120	73-127	
1,2-Dichlorobenzene	50.00	48.36	97	80-120	73-127	
1,3-Dichlorobenzene	50.00	48.24	96	80-120	73-127	
1,4-Dichlorobenzene	50.00	47.88	96	80-120	73-127	
Dichlorodifluoromethane	50.00	54.72	109	50-150	33-167	
1,1-Dichloroethane	50.00	46.55	93	73-127	64-136	
1,2-Dichloroethane	50.00	48.71	97	75-123	67-131	
1,1-Dichloroethene	50.00	45.05	90	64-136	52-148	
c-1,2-Dichloroethene	50.00	42.11	84	78-120	71-127	
t-1,2-Dichloroethene	50.00	46.69	93	70-130	60-140	
1,2-Dichloropropane	50.00	47.14	94	80-120	73-127	
1,3-Dichloropropane	50.00	47.12	94	80-120	73-127	
2,2-Dichloropropane	50.00	47.94	96	53-155	36-172	
1,1-Dichloropropene	50.00	43.81	88	73-127	64-136	
c-1,3-Dichloropropene	50.00	48.51	97	80-129	72-137	
t-1,3-Dichloropropene	50.00	51.56	103	78-132	69-141	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Geosyntec Consultants	Date Received:	10/10/17
2100 Main Street, Suite 150	Work Order:	17-10-0707
Huntington Beach, CA 92648-2460	Preparation:	EPA 5030C
	Method:	EPA 8260B
Project: 777 N. Front Street / HR1305D-01		Page 2 of 4

<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Ethylbenzene	50.00	48.36	97	80-120	73-127	
2-Hexanone	50.00	49.40	99	59-131	47-143	
Isopropylbenzene	50.00	51.18	102	80-126	72-134	
p-Isopropyltoluene	50.00	50.54	101	80-129	72-137	
Methylene Chloride	50.00	48.99	98	73-127	64-136	
4-Methyl-2-Pentanone	50.00	46.54	93	68-122	59-131	
Naphthalene	50.00	47.54	95	64-136	52-148	
n-Propylbenzene	50.00	51.24	102	80-125	72-132	
Styrene	50.00	50.26	101	80-122	73-129	
1,1,1,2-Tetrachloroethane	50.00	54.35	109	80-126	72-134	
1,1,2,2-Tetrachloroethane	50.00	47.87	96	76-120	69-127	
Tetrachloroethene	50.00	40.27	81	54-144	39-159	
Toluene	50.00	47.31	95	80-122	73-129	
1,2,3-Trichlorobenzene	50.00	49.40	99	76-130	67-139	
1,2,4-Trichlorobenzene	50.00	50.75	102	74-134	64-144	
1,1,1-Trichloroethane	50.00	46.97	94	73-127	64-136	
Hexachloro-1,3-Butadiene	50.00	55.94	112	75-135	65-145	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	46.03	92	53-155	36-172	
1,1,2-Trichloroethane	50.00	48.35	97	80-120	73-127	
Trichloroethene	50.00	49.30	99	77-125	69-133	
Trichlorofluoromethane	50.00	56.65	113	69-141	57-153	
1,2,3-Trichloropropane	50.00	48.80	98	77-125	69-133	
1,2,4-Trimethylbenzene	50.00	48.26	97	80-123	73-130	
1,3,5-Trimethylbenzene	50.00	51.64	103	80-126	72-134	
Vinyl Acetate	50.00	34.01	68	50-150	33-167	
Vinyl Chloride	50.00	47.29	95	63-135	51-147	
p/m-Xylene	100.0	99.50	99	80-125	72-132	
o-Xylene	50.00	50.67	101	80-125	72-132	
Methyl-t-Butyl Ether (MTBE)	50.00	44.89	90	77-120	70-127	

Total number of LCS compounds: 67

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-856	LCS	Solid	GC/MS LL	10/12/17	10/12/17 09:58	171012L010
099-14-312-856	LCSD	Solid	GC/MS LL	10/12/17	10/12/17 10:27	171012L010

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	49.03	98	52.99	106	30-150	10-170	8	0-20	
Benzene	50.00	50.05	100	49.74	99	79-120	72-127	1	0-20	
Bromobenzene	50.00	52.00	104	52.25	105	80-120	73-127	0	0-20	
Bromochloromethane	50.00	56.77	114	56.52	113	80-120	73-127	0	0-20	
Bromodichloromethane	50.00	52.98	106	53.50	107	73-127	64-136	1	0-20	
Bromoform	50.00	48.31	97	49.52	99	55-133	42-146	2	0-20	
Bromomethane	50.00	62.13	124	59.12	118	36-144	18-162	5	0-20	
2-Butanone	50.00	51.98	104	52.21	104	56-176	36-196	0	0-20	
n-Butylbenzene	50.00	53.33	107	52.02	104	78-126	70-134	2	0-20	
sec-Butylbenzene	50.00	55.49	111	55.24	110	79-127	71-135	0	0-20	
tert-Butylbenzene	50.00	53.95	108	53.93	108	80-128	72-136	0	0-20	
Carbon Disulfide	50.00	50.94	102	50.91	102	53-125	41-137	0	0-20	
Carbon Tetrachloride	50.00	49.66	99	48.82	98	58-142	44-156	2	0-20	
Chlorobenzene	50.00	51.05	102	51.36	103	80-120	73-127	1	0-20	
Chloroethane	50.00	46.15	92	44.64	89	60-120	50-130	3	0-20	
Chloroform	50.00	50.95	102	51.35	103	80-120	73-127	1	0-20	
Chloromethane	50.00	47.19	94	45.48	91	50-122	38-134	4	0-20	
2-Chlorotoluene	50.00	53.12	106	52.90	106	80-125	72-132	0	0-20	
4-Chlorotoluene	50.00	53.16	106	53.04	106	80-120	73-127	0	0-20	
Dibromochloromethane	50.00	49.80	100	50.10	100	70-130	60-140	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	48.35	97	48.48	97	54-132	41-145	0	0-20	
1,2-Dibromoethane	50.00	54.33	109	54.61	109	80-120	73-127	1	0-20	
Dibromomethane	50.00	52.06	104	52.03	104	80-122	73-129	0	0-20	
1,2-Dichlorobenzene	50.00	51.93	104	51.93	104	80-120	73-127	0	0-20	
1,3-Dichlorobenzene	50.00	52.67	105	53.30	107	80-120	73-127	1	0-20	
1,4-Dichlorobenzene	50.00	52.24	104	52.51	105	80-120	73-127	1	0-20	
Dichlorodifluoromethane	50.00	39.74	79	38.21	76	32-158	11-179	4	0-20	
1,1-Dichloroethane	50.00	51.76	104	52.16	104	74-120	66-128	1	0-20	
1,2-Dichloroethane	50.00	47.75	96	48.05	96	79-121	72-128	1	0-20	
1,1-Dichloroethene	50.00	52.21	104	50.86	102	71-125	62-134	3	0-20	
c-1,2-Dichloroethene	50.00	51.69	103	51.59	103	80-123	73-130	0	0-20	
t-1,2-Dichloroethene	50.00	53.38	107	53.38	107	80-120	73-127	0	0-20	
1,2-Dichloropropane	50.00	50.71	101	51.06	102	77-120	70-127	1	0-20	
1,3-Dichloropropane	50.00	49.90	100	49.74	99	80-120	73-127	0	0-20	
2,2-Dichloropropane	50.00	48.63	97	48.20	96	58-142	44-156	1	0-20	
1,1-Dichloropropene	50.00	52.03	104	51.09	102	69-120	60-128	2	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/10/17
Work Order: 17-10-0707
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	48.02	96	47.52	95	74-128	65-137	1	0-20	
t-1,3-Dichloropropene	50.00	47.96	96	48.18	96	66-120	57-129	0	0-20	
Ethylbenzene	50.00	53.40	107	53.15	106	80-120	73-127	0	0-20	
2-Hexanone	50.00	40.03	80	40.34	81	67-151	53-165	1	0-20	
Isopropylbenzene	50.00	54.88	110	54.48	109	80-129	72-137	1	0-20	
p-Isopropyltoluene	50.00	54.28	109	54.29	109	80-122	73-129	0	0-20	
Methylene Chloride	50.00	51.90	104	52.71	105	72-120	64-128	2	0-20	
4-Methyl-2-Pentanone	50.00	46.63	93	46.39	93	72-126	63-135	1	0-20	
Naphthalene	50.00	40.30	81	40.44	81	64-124	54-134	0	0-20	
n-Propylbenzene	50.00	54.35	109	53.39	107	80-122	73-129	2	0-20	
Styrene	50.00	52.50	105	52.10	104	80-123	73-130	1	0-20	
1,1,1,2-Tetrachloroethane	50.00	53.22	106	53.61	107	73-133	63-143	1	0-20	
1,1,2,2-Tetrachloroethane	50.00	51.62	103	52.33	105	77-120	70-127	1	0-20	
Tetrachloroethene	50.00	58.51	117	59.76	120	75-123	67-131	2	0-20	
Toluene	50.00	51.18	102	50.81	102	80-120	73-127	1	0-20	
1,2,3-Trichlorobenzene	50.00	45.99	92	45.84	92	73-127	64-136	0	0-20	
1,2,4-Trichlorobenzene	50.00	47.70	95	47.20	94	74-128	65-137	1	0-20	
1,1,1-Trichloroethane	50.00	50.17	100	49.82	100	71-131	61-141	1	0-20	
1,1,2-Trichloroethane	50.00	48.44	97	49.16	98	80-120	73-127	1	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	56.12	112	54.73	109	77-125	69-133	3	0-20	
Trichloroethene	50.00	50.35	101	49.59	99	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	52.12	104	50.92	102	70-136	59-147	2	0-20	
1,2,3-Trichloropropane	50.00	47.56	95	48.43	97	60-120	50-130	2	0-20	
1,2,4-Trimethylbenzene	50.00	50.98	102	51.10	102	75-123	67-131	0	0-20	
1,3,5-Trimethylbenzene	50.00	53.07	106	52.38	105	80-123	73-130	1	0-20	
Vinyl Acetate	50.00	46.40	93	45.39	91	51-159	33-177	2	0-20	
Vinyl Chloride	50.00	47.89	96	46.72	93	68-120	59-129	2	0-20	
p/m-Xylene	100.0	103.9	104	102.3	102	80-122	73-129	2	0-20	
o-Xylene	50.00	52.37	105	51.95	104	79-127	71-135	1	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	46.36	93	46.81	94	64-124	54-134	1	0-20	

Total number of LCS compounds: 66

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Sample Analysis Summary Report

Work Order: 17-10-0707

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8260B	EPA 5035	867	GC/MS LL	2
EPA 8260B	EPA 5030C	1055	GC/MS WW	2


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Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 17-10-0707

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



Calscience

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofins.com or call us.

CHAIN-OF-CUSTODY RECORD

Date 10/10/17
Page 1 of 1

WO NO. / LAB USE ONLY

17-10-0707

LABORATORY CLIENT: Geosyntec Consultants
ADDRESS: 2100 Main St. #150
CITY: Huntington Beach STATE: CA ZIP: 92648
TEL: 714-465-1268 E-MAIL: jwharton@geosyntec.com
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☒ STANDARD
EDD
☐ COELT EDF ☐ OTHER

CLIENT PROJECT NAME / NO.: 777 N. Front St.
PROJECT CONTACT: Goodwin Wharton
GLOBAL ID: LOG CODE:
P.O. NO.: HR1306D-01
LAB CONTACT OR QUOTE NO.: Stephen Nowak
SAMPLER(S) (PRINT): G. Wharton

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Field Filtered		TPH (g) ☐ GRO	TPH (g) ☐ DRO	TPH ☐ C6-C36 ☐ C8-C44	TPH	BTEX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
		DATE	TIME			Unpreserved	Preserved														
1	NP-2-6	10/9/17	16:25	S	4	X							X								
2	NP-2-28	10/9/17	16:46	S	4	X							X								
3	NP-2-36	10/9/17	17:00	S	4	X							X								
4	NP-2-50	10/10/17	08:25	S	4	X							X								
5	NP-2-80	10/10/17	09:55	S	4	X							X								
6	EB-NP-2	10/10/17	14:05	L	2	X							X								
7	NP-3-12	10/10/17	14:20	S	4	X							X								

Relinquished by: (Signature) Goodwin Wharton Date: 10/10/17 Time: 14:55
Relinquished by: (Signature) [Signature] Date: 10/10/17 Time: 17:40
Relinquished by: (Signature) [Signature] Date: 10/10/17 Time: 17:40

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1CLIENT: GEOSYNTECDATE: 10/10/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.4°C); Temperature (w/o CF): 3.6 °C (w/ CF): 3.2 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 809

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 809Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 689

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/ASamples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace ☒ Yes ☐ No ☐ N/A☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☒ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBznna (pH__9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH__2) ☐ 250PB ☐ 250PBn (pH__2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH__2) ☐ 500PB☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs (pH__2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PBna (pH__12) ☐ _____ ☐ _____Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® (____) ☒ TerraCores® (3) ☒ 2ozPJ ☐ _____ ☐ _____Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (____): ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 689s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄·H₂O, znna = Zn (CH₃CO₂)₂ + NaOHReviewed by: 778



Supplemental Report 1

The original report has been revised/corrected.

**WORK ORDER NUMBER: 17-10-0812***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** Geosyntec Consultants**Client Project Name:** 777 N. Front Street / HR1305D-01**Attention:** Goodwin Wharton
2100 Main Street
Suite 150
Huntington Beach, CA 92648-2460

Approved for release on 11/03/2017 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

Client Project Name: 777 N. Front Street / HR1305D-01
 Work Order Number: 17-10-0812

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Work Order Narrative

Work Order: 17-10-0812

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/11/17. They were assigned to Work Order 17-10-0812.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Sample Summary

Client: Geosyntec Consultants	Work Order: 17-10-0812
2100 Main Street, Suite 150	Project Name: 777 N. Front Street / HR1305D-01
Huntington Beach, CA 92648-2460	PO Number:
	Date/Time Received: 10/11/17 18:45
	Number of Containers: 34

Attn: Goodwin Wharton

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
NP-3-16	17-10-0812-1	10/10/17 15:25	4	Solid
NP-3-32	17-10-0812-2	10/10/17 15:30	4	Solid
NP-3-46	17-10-0812-3	10/10/17 15:40	4	Solid
NP-4-10	17-10-0812-4	10/11/17 09:05	4	Solid
NP-4-18	17-10-0812-5	10/11/17 09:35	4	Solid
NP-4-40	17-10-0812-6	10/11/17 09:50	4	Solid
NP-4-58	17-10-0812-7	10/11/17 10:45	4	Solid
NP-4-80	17-10-0812-8	10/11/17 11:10	4	Solid
EB-NP-4	17-10-0812-9	10/11/17 13:20	2	Aqueous



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Detections Summary

Client: Geosyntec Consultants
 2100 Main Street, Suite 150
 Huntington Beach, CA 92648-2460

Work Order: 17-10-0812
 Project Name: 777 N. Front Street / HR1305D-01
 Received: 10/11/17

Attn: Goodwin Wharton

Page 1 of 1

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
NP-3-16 (17-10-0812-1)						
Tetrachloroethene	99		47	ug/kg	EPA 8260B	EPA 5035
NP-4-10 (17-10-0812-4)						
Tetrachloroethene	13	J	10*	ug/kg	EPA 8260B	EPA 5035
NP-4-40 (17-10-0812-6)						
Tetrachloroethene	28	J	10*	ug/kg	EPA 8260B	EPA 5035
NP-4-80 (17-10-0812-8)						
Tetrachloroethene	20	J	9.9*	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

Return to Contents

* MDL is shown



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-NP-4	17-10-0812-9-B	10/11/17 13:20	Aqueous	GC/MS XX	10/17/17	10/17/17 19:15	171017L037

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	78-120	
Dibromofluoromethane	101	80-126	
1,2-Dichloroethane-d4	103	80-129	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-316-3685	N/A	Aqueous	GC/MS XX	10/17/17	10/17/17 14:04	171017L037

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	78-120	
Dibromofluoromethane	102	80-126	
1,2-Dichloroethane-d4	103	80-129	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

Page 1 of 20

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-3-16	17-10-0812-1-E	10/10/17 15:25	Solid	GC/MS BB	10/10/17	10/12/17 23:16	171012L063

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2300	290	50.0	
Benzene	ND	47	6.1	50.0	
Bromobenzene	ND	47	9.8	50.0	
Bromochloromethane	ND	93	32	50.0	
Bromodichloromethane	ND	47	11	50.0	
Bromoform	ND	230	37	50.0	
Bromomethane	ND	930	440	50.0	
2-Butanone	ND	930	180	50.0	
n-Butylbenzene	ND	47	7.3	50.0	
sec-Butylbenzene	ND	47	27	50.0	
tert-Butylbenzene	ND	47	7.0	50.0	
Carbon Disulfide	ND	470	14	50.0	
Carbon Tetrachloride	ND	47	13	50.0	
Chlorobenzene	ND	47	10	50.0	
Chloroethane	ND	93	70	50.0	
Chloroform	ND	47	11	50.0	
Chloromethane	ND	930	14	50.0	
2-Chlorotoluene	ND	47	11	50.0	
4-Chlorotoluene	ND	47	9.9	50.0	
Dibromochloromethane	ND	93	27	50.0	
1,2-Dibromo-3-Chloropropane	ND	230	81	50.0	
1,2-Dibromoethane	ND	47	12	50.0	
Dibromomethane	ND	47	36	50.0	
1,2-Dichlorobenzene	ND	47	11	50.0	
1,3-Dichlorobenzene	ND	47	8.2	50.0	
1,4-Dichlorobenzene	ND	47	10	50.0	
Dichlorodifluoromethane	ND	93	21	50.0	
1,1-Dichloroethane	ND	47	9.9	50.0	
1,2-Dichloroethane	ND	47	15	50.0	
1,1-Dichloroethene	ND	47	16	50.0	
c-1,2-Dichloroethene	ND	47	13	50.0	
t-1,2-Dichloroethene	ND	47	24	50.0	
1,2-Dichloropropane	ND	47	20	50.0	
1,3-Dichloropropane	ND	47	12	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	230	15	50.0	
1,1-Dichloropropene	ND	93	15	50.0	
c-1,3-Dichloropropene	ND	47	12	50.0	
t-1,3-Dichloropropene	ND	93	28	50.0	
Ethylbenzene	ND	47	7.1	50.0	
2-Hexanone	ND	930	82	50.0	
Isopropylbenzene	ND	47	25	50.0	
p-Isopropyltoluene	ND	47	29	50.0	
Methylene Chloride	ND	470	62	50.0	
4-Methyl-2-Pentanone	ND	930	200	50.0	
Naphthalene	ND	470	38	50.0	
n-Propylbenzene	ND	93	23	50.0	
Styrene	ND	47	28	50.0	
1,1,1,2-Tetrachloroethane	ND	47	11	50.0	
1,1,2,2-Tetrachloroethane	ND	93	16	50.0	
Tetrachloroethene	99	47	9.8	50.0	
Toluene	ND	47	24	50.0	
1,2,3-Trichlorobenzene	ND	93	43	50.0	
1,2,4-Trichlorobenzene	ND	93	14	50.0	
1,1,1-Trichloroethane	ND	47	11	50.0	
1,1,2-Trichloroethane	ND	47	17	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	470	16	50.0	
Trichloroethene	ND	93	14	50.0	
Trichlorofluoromethane	ND	470	17	50.0	
1,2,3-Trichloropropane	ND	93	39	50.0	
1,2,4-Trimethylbenzene	ND	93	27	50.0	
1,3,5-Trimethylbenzene	ND	93	26	50.0	
Vinyl Acetate	ND	470	220	50.0	
Vinyl Chloride	ND	47	23	50.0	
p/m-Xylene	ND	93	12	50.0	
o-Xylene	ND	47	26	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	93	14	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	99	79-133	
1,2-Dichloroethane-d4	102	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-3-32	17-10-0812-2-E	10/10/17 15:30	Solid	GC/MS BB	10/10/17	10/12/17 23:45	171012L063

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2400	300	50.0	
Benzene	ND	48	6.2	50.0	
Bromobenzene	ND	48	10	50.0	
Bromochloromethane	ND	96	33	50.0	
Bromodichloromethane	ND	48	11	50.0	
Bromoform	ND	240	38	50.0	
Bromomethane	ND	960	450	50.0	
2-Butanone	ND	960	180	50.0	
n-Butylbenzene	ND	48	7.5	50.0	
sec-Butylbenzene	ND	48	28	50.0	
tert-Butylbenzene	ND	48	7.3	50.0	
Carbon Disulfide	ND	480	15	50.0	
Carbon Tetrachloride	ND	48	14	50.0	
Chlorobenzene	ND	48	11	50.0	
Chloroethane	ND	96	72	50.0	
Chloroform	ND	48	11	50.0	
Chloromethane	ND	960	15	50.0	
2-Chlorotoluene	ND	48	11	50.0	
4-Chlorotoluene	ND	48	10	50.0	
Dibromochloromethane	ND	96	27	50.0	
1,2-Dibromo-3-Chloropropane	ND	240	84	50.0	
1,2-Dibromoethane	ND	48	12	50.0	
Dibromomethane	ND	48	37	50.0	
1,2-Dichlorobenzene	ND	48	11	50.0	
1,3-Dichlorobenzene	ND	48	8.5	50.0	
1,4-Dichlorobenzene	ND	48	11	50.0	
Dichlorodifluoromethane	ND	96	21	50.0	
1,1-Dichloroethane	ND	48	10	50.0	
1,2-Dichloroethane	ND	48	15	50.0	
1,1-Dichloroethene	ND	48	17	50.0	
c-1,2-Dichloroethene	ND	48	13	50.0	
t-1,2-Dichloroethene	ND	48	24	50.0	
1,2-Dichloropropane	ND	48	21	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,3-Dichloropropane	ND	48	12	50.0	
2,2-Dichloropropane	ND	240	16	50.0	
1,1-Dichloropropene	ND	96	16	50.0	
c-1,3-Dichloropropene	ND	48	12	50.0	
t-1,3-Dichloropropene	ND	96	29	50.0	
Ethylbenzene	ND	48	7.3	50.0	
2-Hexanone	ND	960	85	50.0	
Isopropylbenzene	ND	48	26	50.0	
p-Isopropyltoluene	ND	48	30	50.0	
Methylene Chloride	ND	480	64	50.0	
4-Methyl-2-Pentanone	ND	960	210	50.0	
Naphthalene	ND	480	39	50.0	
n-Propylbenzene	ND	96	24	50.0	
Styrene	ND	48	29	50.0	
1,1,1,2-Tetrachloroethane	ND	48	12	50.0	
1,1,2,2-Tetrachloroethane	ND	96	17	50.0	
Tetrachloroethene	ND	48	10	50.0	
Toluene	ND	48	25	50.0	
1,2,3-Trichlorobenzene	ND	96	44	50.0	
1,2,4-Trichlorobenzene	ND	96	15	50.0	
1,1,1-Trichloroethane	ND	48	11	50.0	
1,1,2-Trichloroethane	ND	48	17	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	480	17	50.0	
Trichloroethene	ND	96	14	50.0	
Trichlorofluoromethane	ND	480	18	50.0	
1,2,3-Trichloropropane	ND	96	40	50.0	
1,2,4-Trimethylbenzene	ND	96	28	50.0	
1,3,5-Trimethylbenzene	ND	96	26	50.0	
Vinyl Acetate	ND	480	230	50.0	
Vinyl Chloride	ND	48	24	50.0	
p/m-Xylene	ND	96	13	50.0	
o-Xylene	ND	48	27	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	96	14	50.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	99	80-120			
Dibromofluoromethane	97	79-133			
1,2-Dichloroethane-d4	101	71-155			
Toluene-d8	100	80-120			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-3-46	17-10-0812-3-E	10/10/17 15:40	Solid	GC/MS BB	10/10/17	10/13/17 00:14	171012L063

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2600	330	50.0	
Benzene	ND	52	6.8	50.0	
Bromobenzene	ND	52	11	50.0	
Bromochloromethane	ND	100	36	50.0	
Bromodichloromethane	ND	52	12	50.0	
Bromoform	ND	260	41	50.0	
Bromomethane	ND	1000	490	50.0	
2-Butanone	ND	1000	200	50.0	
n-Butylbenzene	ND	52	8.2	50.0	
sec-Butylbenzene	ND	52	30	50.0	
tert-Butylbenzene	ND	52	7.9	50.0	
Carbon Disulfide	ND	520	16	50.0	
Carbon Tetrachloride	ND	52	15	50.0	
Chlorobenzene	ND	52	12	50.0	
Chloroethane	ND	100	78	50.0	
Chloroform	ND	52	12	50.0	
Chloromethane	ND	1000	16	50.0	
2-Chlorotoluene	ND	52	12	50.0	
4-Chlorotoluene	ND	52	11	50.0	
Dibromochloromethane	ND	100	30	50.0	
1,2-Dibromo-3-Chloropropane	ND	260	91	50.0	
1,2-Dibromoethane	ND	52	13	50.0	
Dibromomethane	ND	52	40	50.0	
1,2-Dichlorobenzene	ND	52	12	50.0	
1,3-Dichlorobenzene	ND	52	9.2	50.0	
1,4-Dichlorobenzene	ND	52	12	50.0	
Dichlorodifluoromethane	ND	100	23	50.0	
1,1-Dichloroethane	ND	52	11	50.0	
1,2-Dichloroethane	ND	52	16	50.0	
1,1-Dichloroethene	ND	52	18	50.0	
c-1,2-Dichloroethene	ND	52	15	50.0	
t-1,2-Dichloroethene	ND	52	26	50.0	
1,2-Dichloropropane	ND	52	23	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Geosyntec Consultants
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Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,3-Dichloropropane	ND	52	13	50.0	
2,2-Dichloropropane	ND	260	17	50.0	
1,1-Dichloropropene	ND	100	17	50.0	
c-1,3-Dichloropropene	ND	52	13	50.0	
t-1,3-Dichloropropene	ND	100	32	50.0	
Ethylbenzene	ND	52	7.9	50.0	
2-Hexanone	ND	1000	92	50.0	
Isopropylbenzene	ND	52	29	50.0	
p-Isopropyltoluene	ND	52	33	50.0	
Methylene Chloride	ND	520	70	50.0	
4-Methyl-2-Pentanone	ND	1000	230	50.0	
Naphthalene	ND	520	42	50.0	
n-Propylbenzene	ND	100	26	50.0	
Styrene	ND	52	32	50.0	
1,1,1,2-Tetrachloroethane	ND	52	13	50.0	
1,1,2,2-Tetrachloroethane	ND	100	18	50.0	
Tetrachloroethene	ND	52	11	50.0	
Toluene	ND	52	27	50.0	
1,2,3-Trichlorobenzene	ND	100	48	50.0	
1,2,4-Trichlorobenzene	ND	100	16	50.0	
1,1,1-Trichloroethane	ND	52	12	50.0	
1,1,2-Trichloroethane	ND	52	18	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	520	18	50.0	
Trichloroethene	ND	100	16	50.0	
Trichlorofluoromethane	ND	520	20	50.0	
1,2,3-Trichloropropane	ND	100	43	50.0	
1,2,4-Trimethylbenzene	ND	100	31	50.0	
1,3,5-Trimethylbenzene	ND	100	29	50.0	
Vinyl Acetate	ND	520	250	50.0	
Vinyl Chloride	ND	52	26	50.0	
p/m-Xylene	ND	100	14	50.0	
o-Xylene	ND	52	29	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	100	15	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	99	79-133	
1,2-Dichloroethane-d4	102	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-4-10	17-10-0812-4-E	10/11/17 09:05	Solid	GC/MS BB	10/11/17	10/13/17 00:43	171012L063

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2400	300	50.0	
Benzene	ND	49	6.3	50.0	
Bromobenzene	ND	49	10	50.0	
Bromochloromethane	ND	97	34	50.0	
Bromodichloromethane	ND	49	11	50.0	
Bromoform	ND	240	39	50.0	
Bromomethane	ND	970	460	50.0	
2-Butanone	ND	970	180	50.0	
n-Butylbenzene	ND	49	7.6	50.0	
sec-Butylbenzene	ND	49	28	50.0	
tert-Butylbenzene	ND	49	7.3	50.0	
Carbon Disulfide	ND	490	15	50.0	
Carbon Tetrachloride	ND	49	14	50.0	
Chlorobenzene	ND	49	11	50.0	
Chloroethane	ND	97	73	50.0	
Chloroform	ND	49	12	50.0	
Chloromethane	ND	970	15	50.0	
2-Chlorotoluene	ND	49	11	50.0	
4-Chlorotoluene	ND	49	10	50.0	
Dibromochloromethane	ND	97	28	50.0	
1,2-Dibromo-3-Chloropropane	ND	240	85	50.0	
1,2-Dibromoethane	ND	49	12	50.0	
Dibromomethane	ND	49	38	50.0	
1,2-Dichlorobenzene	ND	49	11	50.0	
1,3-Dichlorobenzene	ND	49	8.6	50.0	
1,4-Dichlorobenzene	ND	49	11	50.0	
Dichlorodifluoromethane	ND	97	22	50.0	
1,1-Dichloroethane	ND	49	10	50.0	
1,2-Dichloroethane	ND	49	15	50.0	
1,1-Dichloroethene	ND	49	17	50.0	
c-1,2-Dichloroethene	ND	49	14	50.0	
t-1,2-Dichloroethene	ND	49	25	50.0	
1,2-Dichloropropane	ND	49	21	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,3-Dichloropropane	ND	49	12	50.0	
2,2-Dichloropropane	ND	240	16	50.0	
1,1-Dichloropropene	ND	97	16	50.0	
c-1,3-Dichloropropene	ND	49	12	50.0	
t-1,3-Dichloropropene	ND	97	29	50.0	
Ethylbenzene	ND	49	7.4	50.0	
2-Hexanone	ND	970	86	50.0	
Isopropylbenzene	ND	49	27	50.0	
p-Isopropyltoluene	ND	49	31	50.0	
Methylene Chloride	ND	490	65	50.0	
4-Methyl-2-Pentanone	ND	970	210	50.0	
Naphthalene	ND	490	40	50.0	
n-Propylbenzene	ND	97	24	50.0	
Styrene	ND	49	29	50.0	
1,1,1,2-Tetrachloroethane	ND	49	12	50.0	
1,1,2,2-Tetrachloroethane	ND	97	17	50.0	
Tetrachloroethene	13	49	10	50.0	J
Toluene	ND	49	25	50.0	
1,2,3-Trichlorobenzene	ND	97	44	50.0	
1,2,4-Trichlorobenzene	ND	97	15	50.0	
1,1,1-Trichloroethane	ND	49	11	50.0	
1,1,2-Trichloroethane	ND	49	17	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	490	17	50.0	
Trichloroethene	ND	97	15	50.0	
Trichlorofluoromethane	ND	490	18	50.0	
1,2,3-Trichloropropane	ND	97	40	50.0	
1,2,4-Trimethylbenzene	ND	97	29	50.0	
1,3,5-Trimethylbenzene	ND	97	27	50.0	
Vinyl Acetate	ND	490	230	50.0	
Vinyl Chloride	ND	49	24	50.0	
p/m-Xylene	ND	97	13	50.0	
o-Xylene	ND	49	27	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	97	14	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	97	79-133	
1,2-Dichloroethane-d4	101	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-4-18	17-10-0812-5-E	10/11/17 09:35	Solid	GC/MS BB	10/11/17	10/13/17 01:11	171012L063

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2600	320	50.0	
Benzene	ND	52	6.7	50.0	
Bromobenzene	ND	52	11	50.0	
Bromochloromethane	ND	100	36	50.0	
Bromodichloromethane	ND	52	12	50.0	
Bromoform	ND	260	41	50.0	
Bromomethane	ND	1000	490	50.0	
2-Butanone	ND	1000	190	50.0	
n-Butylbenzene	ND	52	8.1	50.0	
sec-Butylbenzene	ND	52	30	50.0	
tert-Butylbenzene	ND	52	7.8	50.0	
Carbon Disulfide	ND	520	16	50.0	
Carbon Tetrachloride	ND	52	15	50.0	
Chlorobenzene	ND	52	12	50.0	
Chloroethane	ND	100	77	50.0	
Chloroform	ND	52	12	50.0	
Chloromethane	ND	1000	16	50.0	
2-Chlorotoluene	ND	52	12	50.0	
4-Chlorotoluene	ND	52	11	50.0	
Dibromochloromethane	ND	100	29	50.0	
1,2-Dibromo-3-Chloropropane	ND	260	90	50.0	
1,2-Dibromoethane	ND	52	13	50.0	
Dibromomethane	ND	52	40	50.0	
1,2-Dichlorobenzene	ND	52	12	50.0	
1,3-Dichlorobenzene	ND	52	9.1	50.0	
1,4-Dichlorobenzene	ND	52	11	50.0	
Dichlorodifluoromethane	ND	100	23	50.0	
1,1-Dichloroethane	ND	52	11	50.0	
1,2-Dichloroethane	ND	52	16	50.0	
1,1-Dichloroethene	ND	52	18	50.0	
c-1,2-Dichloroethene	ND	52	14	50.0	
t-1,2-Dichloroethene	ND	52	26	50.0	
1,2-Dichloropropane	ND	52	23	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,3-Dichloropropane	ND	52	13	50.0	
2,2-Dichloropropane	ND	260	17	50.0	
1,1-Dichloropropene	ND	100	17	50.0	
c-1,3-Dichloropropene	ND	52	13	50.0	
t-1,3-Dichloropropene	ND	100	31	50.0	
Ethylbenzene	ND	52	7.8	50.0	
2-Hexanone	ND	1000	91	50.0	
Isopropylbenzene	ND	52	28	50.0	
p-Isopropyltoluene	ND	52	33	50.0	
Methylene Chloride	ND	520	69	50.0	
4-Methyl-2-Pentanone	ND	1000	220	50.0	
Naphthalene	ND	520	42	50.0	
n-Propylbenzene	ND	100	26	50.0	
Styrene	ND	52	31	50.0	
1,1,1,2-Tetrachloroethane	ND	52	12	50.0	
1,1,2,2-Tetrachloroethane	ND	100	18	50.0	
Tetrachloroethene	ND	52	11	50.0	
Toluene	ND	52	27	50.0	
1,2,3-Trichlorobenzene	ND	100	47	50.0	
1,2,4-Trichlorobenzene	ND	100	16	50.0	
1,1,1-Trichloroethane	ND	52	12	50.0	
1,1,2-Trichloroethane	ND	52	18	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	520	18	50.0	
Trichloroethene	ND	100	16	50.0	
Trichlorofluoromethane	ND	520	19	50.0	
1,2,3-Trichloropropane	ND	100	43	50.0	
1,2,4-Trimethylbenzene	ND	100	30	50.0	
1,3,5-Trimethylbenzene	ND	100	28	50.0	
Vinyl Acetate	ND	520	250	50.0	
Vinyl Chloride	ND	52	26	50.0	
p/m-Xylene	ND	100	14	50.0	
o-Xylene	ND	52	29	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	100	15	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	98	79-133	
1,2-Dichloroethane-d4	102	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-4-40	17-10-0812-6-E	10/11/17 09:50	Solid	GC/MS BB	10/11/17	10/13/17 01:40	171012L063

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2500	310	50.0	
Benzene	ND	50	6.5	50.0	
Bromobenzene	ND	50	10	50.0	
Bromochloromethane	ND	99	34	50.0	
Bromodichloromethane	ND	50	12	50.0	
Bromoform	ND	250	39	50.0	
Bromomethane	ND	990	470	50.0	
2-Butanone	ND	990	190	50.0	
n-Butylbenzene	ND	50	7.8	50.0	
sec-Butylbenzene	ND	50	29	50.0	
tert-Butylbenzene	ND	50	7.5	50.0	
Carbon Disulfide	ND	500	15	50.0	
Carbon Tetrachloride	ND	50	14	50.0	
Chlorobenzene	ND	50	11	50.0	
Chloroethane	ND	99	74	50.0	
Chloroform	ND	50	12	50.0	
Chloromethane	ND	990	15	50.0	
2-Chlorotoluene	ND	50	11	50.0	
4-Chlorotoluene	ND	50	11	50.0	
Dibromochloromethane	ND	99	28	50.0	
1,2-Dibromo-3-Chloropropane	ND	250	86	50.0	
1,2-Dibromoethane	ND	50	13	50.0	
Dibromomethane	ND	50	39	50.0	
1,2-Dichlorobenzene	ND	50	11	50.0	
1,3-Dichlorobenzene	ND	50	8.8	50.0	
1,4-Dichlorobenzene	ND	50	11	50.0	
Dichlorodifluoromethane	ND	99	22	50.0	
1,1-Dichloroethane	ND	50	11	50.0	
1,2-Dichloroethane	ND	50	16	50.0	
1,1-Dichloroethene	ND	50	17	50.0	
c-1,2-Dichloroethene	ND	50	14	50.0	
t-1,2-Dichloroethene	ND	50	25	50.0	
1,2-Dichloropropane	ND	50	22	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Parameter	Result	RL	MDL	DF	Qualifiers
1,3-Dichloropropane	ND	50	13	50.0	
2,2-Dichloropropane	ND	250	16	50.0	
1,1-Dichloropropene	ND	99	16	50.0	
c-1,3-Dichloropropene	ND	50	13	50.0	
t-1,3-Dichloropropene	ND	99	30	50.0	
Ethylbenzene	ND	50	7.5	50.0	
2-Hexanone	ND	990	88	50.0	
Isopropylbenzene	ND	50	27	50.0	
p-Isopropyltoluene	ND	50	31	50.0	
Methylene Chloride	ND	500	67	50.0	
4-Methyl-2-Pentanone	ND	990	210	50.0	
Naphthalene	ND	500	40	50.0	
n-Propylbenzene	ND	99	25	50.0	
Styrene	ND	50	30	50.0	
1,1,1,2-Tetrachloroethane	ND	50	12	50.0	
1,1,2,2-Tetrachloroethane	ND	99	17	50.0	
Tetrachloroethene	28	50	10	50.0	J
Toluene	ND	50	26	50.0	
1,2,3-Trichlorobenzene	ND	99	45	50.0	
1,2,4-Trichlorobenzene	ND	99	15	50.0	
1,1,1-Trichloroethane	ND	50	11	50.0	
1,1,2-Trichloroethane	ND	50	18	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	17	50.0	
Trichloroethene	ND	99	15	50.0	
Trichlorofluoromethane	ND	500	19	50.0	
1,2,3-Trichloropropane	ND	99	41	50.0	
1,2,4-Trimethylbenzene	ND	99	29	50.0	
1,3,5-Trimethylbenzene	ND	99	27	50.0	
Vinyl Acetate	ND	500	240	50.0	
Vinyl Chloride	ND	50	25	50.0	
p/m-Xylene	ND	99	13	50.0	
o-Xylene	ND	50	28	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	99	15	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	98	79-133	
1,2-Dichloroethane-d4	101	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-4-58	17-10-0812-7-E	10/11/17 10:45	Solid	GC/MS BB	10/11/17	10/13/17 02:09	171012L063

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2900	370	50.0	
Benzene	ND	59	7.6	50.0	
Bromobenzene	ND	59	12	50.0	
Bromochloromethane	ND	120	40	50.0	
Bromodichloromethane	ND	59	14	50.0	
Bromoform	ND	290	47	50.0	
Bromomethane	ND	1200	550	50.0	
2-Butanone	ND	1200	220	50.0	
n-Butylbenzene	ND	59	9.2	50.0	
sec-Butylbenzene	ND	59	34	50.0	
tert-Butylbenzene	ND	59	8.8	50.0	
Carbon Disulfide	ND	590	18	50.0	
Carbon Tetrachloride	ND	59	17	50.0	
Chlorobenzene	ND	59	13	50.0	
Chloroethane	ND	120	87	50.0	
Chloroform	ND	59	14	50.0	
Chloromethane	ND	1200	18	50.0	
2-Chlorotoluene	ND	59	14	50.0	
4-Chlorotoluene	ND	59	12	50.0	
Dibromochloromethane	ND	120	33	50.0	
1,2-Dibromo-3-Chloropropane	ND	290	100	50.0	
1,2-Dibromoethane	ND	59	15	50.0	
Dibromomethane	ND	59	45	50.0	
1,2-Dichlorobenzene	ND	59	13	50.0	
1,3-Dichlorobenzene	ND	59	10	50.0	
1,4-Dichlorobenzene	ND	59	13	50.0	
Dichlorodifluoromethane	ND	120	26	50.0	
1,1-Dichloroethane	ND	59	12	50.0	
1,2-Dichloroethane	ND	59	18	50.0	
1,1-Dichloroethene	ND	59	20	50.0	
c-1,2-Dichloroethene	ND	59	16	50.0	
t-1,2-Dichloroethene	ND	59	30	50.0	
1,2-Dichloropropane	ND	59	26	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,3-Dichloropropane	ND	59	15	50.0	
2,2-Dichloropropane	ND	290	19	50.0	
1,1-Dichloropropene	ND	120	19	50.0	
c-1,3-Dichloropropene	ND	59	15	50.0	
t-1,3-Dichloropropene	ND	120	35	50.0	
Ethylbenzene	ND	59	8.9	50.0	
2-Hexanone	ND	1200	100	50.0	
Isopropylbenzene	ND	59	32	50.0	
p-Isopropyltoluene	ND	59	37	50.0	
Methylene Chloride	ND	590	78	50.0	
4-Methyl-2-Pentanone	ND	1200	250	50.0	
Naphthalene	ND	590	48	50.0	
n-Propylbenzene	ND	120	29	50.0	
Styrene	ND	59	35	50.0	
1,1,1,2-Tetrachloroethane	ND	59	14	50.0	
1,1,2,2-Tetrachloroethane	ND	120	20	50.0	
Tetrachloroethene	ND	59	12	50.0	
Toluene	ND	59	30	50.0	
1,2,3-Trichlorobenzene	ND	120	53	50.0	
1,2,4-Trichlorobenzene	ND	120	18	50.0	
1,1,1-Trichloroethane	ND	59	13	50.0	
1,1,2-Trichloroethane	ND	59	21	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	590	21	50.0	
Trichloroethene	ND	120	18	50.0	
Trichlorofluoromethane	ND	590	22	50.0	
1,2,3-Trichloropropane	ND	120	49	50.0	
1,2,4-Trimethylbenzene	ND	120	34	50.0	
1,3,5-Trimethylbenzene	ND	120	32	50.0	
Vinyl Acetate	ND	590	280	50.0	
Vinyl Chloride	ND	59	29	50.0	
p/m-Xylene	ND	120	16	50.0	
o-Xylene	ND	59	33	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	120	17	50.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	101	80-120			
Dibromofluoromethane	100	79-133			
1,2-Dichloroethane-d4	103	71-155			
Toluene-d8	102	80-120			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-4-80	17-10-0812-8-E	10/11/17 11:10	Solid	GC/MS BB	10/11/17	10/13/17 18:54	171013L021

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2400	290	50.0	
Benzene	ND	47	6.1	50.0	
Bromobenzene	ND	47	9.9	50.0	
Bromochloromethane	ND	94	33	50.0	
Bromodichloromethane	ND	47	11	50.0	
Bromoform	ND	240	37	50.0	
Bromomethane	ND	940	440	50.0	
2-Butanone	ND	940	180	50.0	
n-Butylbenzene	ND	47	7.4	50.0	
sec-Butylbenzene	ND	47	27	50.0	
tert-Butylbenzene	ND	47	7.1	50.0	
Carbon Disulfide	ND	470	14	50.0	
Carbon Tetrachloride	ND	47	13	50.0	
Chlorobenzene	ND	47	11	50.0	
Chloroethane	ND	94	70	50.0	
Chloroform	ND	47	11	50.0	
Chloromethane	ND	940	14	50.0	
2-Chlorotoluene	ND	47	11	50.0	
4-Chlorotoluene	ND	47	10	50.0	
Dibromochloromethane	ND	94	27	50.0	
1,2-Dibromo-3-Chloropropane	ND	240	82	50.0	
1,2-Dibromoethane	ND	47	12	50.0	
Dibromomethane	ND	47	37	50.0	
1,2-Dichlorobenzene	ND	47	11	50.0	
1,3-Dichlorobenzene	ND	47	8.3	50.0	
1,4-Dichlorobenzene	ND	47	10	50.0	
Dichlorodifluoromethane	ND	94	21	50.0	
1,1-Dichloroethane	ND	47	10	50.0	
1,2-Dichloroethane	ND	47	15	50.0	
1,1-Dichloroethene	ND	47	16	50.0	
c-1,2-Dichloroethene	ND	47	13	50.0	
t-1,2-Dichloroethene	ND	47	24	50.0	
1,2-Dichloropropane	ND	47	21	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Parameter	Result	RL	MDL	DF	Qualifiers
1,3-Dichloropropane	ND	47	12	50.0	
2,2-Dichloropropane	ND	240	16	50.0	
1,1-Dichloropropene	ND	94	15	50.0	
c-1,3-Dichloropropene	ND	47	12	50.0	
t-1,3-Dichloropropene	ND	94	29	50.0	
Ethylbenzene	ND	47	7.1	50.0	
2-Hexanone	ND	940	83	50.0	
Isopropylbenzene	ND	47	26	50.0	
p-Isopropyltoluene	ND	47	30	50.0	
Methylene Chloride	ND	470	63	50.0	
4-Methyl-2-Pentanone	ND	940	200	50.0	
Naphthalene	ND	470	38	50.0	
n-Propylbenzene	ND	94	24	50.0	
Styrene	ND	47	29	50.0	
1,1,1,2-Tetrachloroethane	ND	47	11	50.0	
1,1,2,2-Tetrachloroethane	ND	94	16	50.0	
Tetrachloroethene	20	47	9.9	50.0	J
Toluene	ND	47	24	50.0	
1,2,3-Trichlorobenzene	ND	94	43	50.0	
1,2,4-Trichlorobenzene	ND	94	15	50.0	
1,1,1-Trichloroethane	ND	47	11	50.0	
1,1,2-Trichloroethane	ND	47	17	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	470	17	50.0	
Trichloroethene	ND	94	14	50.0	
Trichlorofluoromethane	ND	470	18	50.0	
1,2,3-Trichloropropane	ND	94	39	50.0	
1,2,4-Trimethylbenzene	ND	94	28	50.0	
1,3,5-Trimethylbenzene	ND	94	26	50.0	
Vinyl Acetate	ND	470	220	50.0	
Vinyl Chloride	ND	47	24	50.0	
p/m-Xylene	ND	94	13	50.0	
o-Xylene	ND	47	26	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	94	14	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	98	79-133	
1,2-Dichloroethane-d4	102	71-155	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-312-861	N/A	Solid	GC/MS BB	10/12/17	10/12/17 17:19	171012L063

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	5000	620	50.0	
Benzene	ND	100	13	50.0	
Bromobenzene	ND	100	21	50.0	
Bromochloromethane	ND	200	69	50.0	
Bromodichloromethane	ND	100	23	50.0	
Bromoform	ND	500	79	50.0	
Bromomethane	ND	2000	940	50.0	
2-Butanone	ND	2000	380	50.0	
n-Butylbenzene	ND	100	16	50.0	
sec-Butylbenzene	ND	100	58	50.0	
tert-Butylbenzene	ND	100	15	50.0	
Carbon Disulfide	ND	1000	31	50.0	
Carbon Tetrachloride	ND	100	28	50.0	
Chlorobenzene	ND	100	22	50.0	
Chloroethane	ND	200	150	50.0	
Chloroform	ND	100	24	50.0	
Chloromethane	31	2000	30	50.0	J
2-Chlorotoluene	ND	100	23	50.0	
4-Chlorotoluene	ND	100	21	50.0	
Dibromochloromethane	ND	200	57	50.0	
1,2-Dibromo-3-Chloropropane	ND	500	170	50.0	
1,2-Dibromoethane	ND	100	26	50.0	
Dibromomethane	ND	100	77	50.0	
1,2-Dichlorobenzene	ND	100	23	50.0	
1,3-Dichlorobenzene	ND	100	18	50.0	
1,4-Dichlorobenzene	ND	100	22	50.0	
Dichlorodifluoromethane	ND	200	44	50.0	
1,1-Dichloroethane	ND	100	21	50.0	
1,2-Dichloroethane	ND	100	31	50.0	
1,1-Dichloroethene	ND	100	35	50.0	
c-1,2-Dichloroethene	ND	100	28	50.0	
t-1,2-Dichloroethene	ND	100	51	50.0	
1,2-Dichloropropane	ND	100	44	50.0	
1,3-Dichloropropane	ND	100	25	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	500	33	50.0	
1,1-Dichloropropene	ND	200	33	50.0	
c-1,3-Dichloropropene	ND	100	25	50.0	
t-1,3-Dichloropropene	ND	200	61	50.0	
Ethylbenzene	ND	100	15	50.0	
2-Hexanone	ND	2000	180	50.0	
Isopropylbenzene	ND	100	55	50.0	
p-Isopropyltoluene	ND	100	63	50.0	
Methylene Chloride	ND	1000	130	50.0	
4-Methyl-2-Pentanone	ND	2000	430	50.0	
Naphthalene	ND	1000	81	50.0	
n-Propylbenzene	ND	200	50	50.0	
Styrene	ND	100	60	50.0	
1,1,1,2-Tetrachloroethane	ND	100	24	50.0	
1,1,2,2-Tetrachloroethane	ND	200	35	50.0	
Tetrachloroethene	ND	100	21	50.0	
Toluene	ND	100	52	50.0	
1,2,3-Trichlorobenzene	ND	200	91	50.0	
1,2,4-Trichlorobenzene	ND	200	31	50.0	
1,1,1-Trichloroethane	ND	100	23	50.0	
1,1,2-Trichloroethane	ND	100	35	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	35	50.0	
Trichloroethene	ND	200	30	50.0	
Trichlorofluoromethane	ND	1000	38	50.0	
1,2,3-Trichloropropane	ND	200	83	50.0	
1,2,4-Trimethylbenzene	ND	200	59	50.0	
1,3,5-Trimethylbenzene	ND	200	55	50.0	
Vinyl Acetate	ND	1000	470	50.0	
Vinyl Chloride	ND	100	50	50.0	
p/m-Xylene	ND	200	27	50.0	
o-Xylene	ND	100	56	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	200	30	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	92	79-133	
1,2-Dichloroethane-d4	95	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-312-859	N/A	Solid	GC/MS BB	10/13/17	10/13/17 17:41	171013L021

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	5000	620	50.0	
Benzene	ND	100	13	50.0	
Bromobenzene	ND	100	21	50.0	
Bromochloromethane	ND	200	69	50.0	
Bromodichloromethane	ND	100	23	50.0	
Bromoform	ND	500	79	50.0	
Bromomethane	ND	2000	940	50.0	
2-Butanone	ND	2000	380	50.0	
n-Butylbenzene	ND	100	16	50.0	
sec-Butylbenzene	ND	100	58	50.0	
tert-Butylbenzene	ND	100	15	50.0	
Carbon Disulfide	ND	1000	31	50.0	
Carbon Tetrachloride	ND	100	28	50.0	
Chlorobenzene	ND	100	22	50.0	
Chloroethane	ND	200	150	50.0	
Chloroform	ND	100	24	50.0	
Chloromethane	34	2000	30	50.0	J
2-Chlorotoluene	ND	100	23	50.0	
4-Chlorotoluene	ND	100	21	50.0	
Dibromochloromethane	ND	200	57	50.0	
1,2-Dibromo-3-Chloropropane	ND	500	170	50.0	
1,2-Dibromoethane	ND	100	26	50.0	
Dibromomethane	ND	100	77	50.0	
1,2-Dichlorobenzene	ND	100	23	50.0	
1,3-Dichlorobenzene	ND	100	18	50.0	
1,4-Dichlorobenzene	ND	100	22	50.0	
Dichlorodifluoromethane	ND	200	44	50.0	
1,1-Dichloroethane	ND	100	21	50.0	
1,2-Dichloroethane	ND	100	31	50.0	
1,1-Dichloroethene	ND	100	35	50.0	
c-1,2-Dichloroethene	ND	100	28	50.0	
t-1,2-Dichloroethene	ND	100	51	50.0	
1,2-Dichloropropane	ND	100	44	50.0	
1,3-Dichloropropane	ND	100	25	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	500	33	50.0	
1,1-Dichloropropene	ND	200	33	50.0	
c-1,3-Dichloropropene	ND	100	25	50.0	
t-1,3-Dichloropropene	ND	200	61	50.0	
Ethylbenzene	ND	100	15	50.0	
2-Hexanone	ND	2000	180	50.0	
Isopropylbenzene	ND	100	55	50.0	
p-Isopropyltoluene	ND	100	63	50.0	
Methylene Chloride	ND	1000	130	50.0	
4-Methyl-2-Pentanone	ND	2000	430	50.0	
Naphthalene	ND	1000	81	50.0	
n-Propylbenzene	ND	200	50	50.0	
Styrene	ND	100	60	50.0	
1,1,1,2-Tetrachloroethane	ND	100	24	50.0	
1,1,2,2-Tetrachloroethane	ND	200	35	50.0	
Tetrachloroethene	ND	100	21	50.0	
Toluene	ND	100	52	50.0	
1,2,3-Trichlorobenzene	ND	200	91	50.0	
1,2,4-Trichlorobenzene	ND	200	31	50.0	
1,1,1-Trichloroethane	ND	100	23	50.0	
1,1,2-Trichloroethane	ND	100	35	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	35	50.0	
Trichloroethene	ND	200	30	50.0	
Trichlorofluoromethane	ND	1000	38	50.0	
1,2,3-Trichloropropane	ND	200	83	50.0	
1,2,4-Trimethylbenzene	ND	200	59	50.0	
1,3,5-Trimethylbenzene	ND	200	55	50.0	
Vinyl Acetate	ND	1000	470	50.0	
Vinyl Chloride	ND	100	50	50.0	
p/m-Xylene	ND	200	27	50.0	
o-Xylene	ND	100	56	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	200	30	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	99	79-133	
1,2-Dichloroethane-d4	102	71-155	
Toluene-d8	99	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
17-10-0797-5	Sample	Aqueous	GC/MS XX	10/17/17	10/17/17 14:36	171017S014				
17-10-0797-5	Matrix Spike	Aqueous	GC/MS XX	10/17/17	10/17/17 15:07	171017S014				
17-10-0797-5	Matrix Spike Duplicate	Aqueous	GC/MS XX	10/17/17	10/17/17 15:38	171017S014				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	59.08	118	61.18	122	34-166	3	0-33	
Benzene	ND	50.00	55.27	111	56.24	112	75-125	2	0-20	
Bromobenzene	ND	50.00	53.71	107	54.93	110	75-125	2	0-20	
Bromochloromethane	ND	50.00	54.32	109	54.77	110	75-125	1	0-20	
Bromodichloromethane	ND	50.00	55.77	112	57.24	114	75-134	3	0-20	
Bromoform	ND	50.00	45.47	91	47.43	95	74-134	4	0-20	
Bromomethane	ND	50.00	53.35	107	51.14	102	20-168	4	0-40	
2-Butanone	ND	50.00	51.56	103	52.51	105	37-157	2	0-20	
n-Butylbenzene	ND	50.00	55.83	112	58.08	116	73-145	4	0-20	
sec-Butylbenzene	ND	50.00	54.31	109	56.20	112	75-135	3	0-20	
tert-Butylbenzene	ND	50.00	55.40	111	57.58	115	75-136	4	0-20	
Carbon Disulfide	ND	50.00	59.19	118	60.83	122	50-152	3	0-27	
Carbon Tetrachloride	ND	50.00	58.68	117	59.55	119	70-154	1	0-20	
Chlorobenzene	ND	50.00	53.16	106	54.35	109	75-125	2	0-20	
Chloroethane	ND	50.00	55.27	111	55.74	111	41-167	1	0-26	
Chloroform	1.023	50.00	54.04	106	54.83	108	75-127	1	0-20	
Chloromethane	ND	50.00	51.84	104	50.95	102	41-149	2	0-20	
2-Chlorotoluene	ND	50.00	54.14	108	55.29	111	75-128	2	0-20	
4-Chlorotoluene	ND	50.00	51.81	104	53.89	108	75-125	4	0-20	
Dibromochloromethane	ND	50.00	56.77	114	57.68	115	75-131	2	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	54.72	109	55.79	112	64-142	2	0-20	
1,2-Dibromoethane	ND	50.00	54.48	109	55.16	110	75-129	1	0-20	
Dibromomethane	ND	50.00	52.08	104	52.95	106	75-125	2	0-20	
1,2-Dichlorobenzene	ND	50.00	52.55	105	54.62	109	75-125	4	0-20	
1,3-Dichlorobenzene	ND	50.00	51.27	103	53.29	107	75-125	4	0-20	
1,4-Dichlorobenzene	ND	50.00	50.61	101	52.74	105	75-125	4	0-20	
Dichlorodifluoromethane	ND	50.00	50.50	101	50.12	100	25-157	1	0-26	
1,1-Dichloroethane	ND	50.00	54.70	109	55.68	111	73-139	2	0-20	
1,2-Dichloroethane	ND	50.00	54.65	109	55.15	110	75-125	1	0-20	
1,1-Dichloroethene	ND	50.00	54.69	109	55.19	110	61-145	1	0-20	
c-1,2-Dichloroethene	7.913	50.00	62.76	110	63.23	111	75-125	1	0-20	
t-1,2-Dichloroethene	ND	50.00	57.19	114	58.51	117	64-142	2	0-20	
1,2-Dichloropropane	ND	50.00	54.50	109	54.99	110	75-127	1	0-20	
1,3-Dichloropropane	ND	50.00	52.52	105	52.90	106	75-125	1	0-20	
2,2-Dichloropropane	ND	50.00	62.61	125	61.72	123	24-180	1	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	56.35	113	56.01	112	75-135	1	0-20	
c-1,3-Dichloropropene	ND	50.00	53.07	106	54.67	109	75-137	3	0-20	
t-1,3-Dichloropropene	ND	50.00	53.76	108	55.10	110	74-146	2	0-20	
Ethylbenzene	ND	50.00	55.07	110	56.20	112	75-129	2	0-20	
2-Hexanone	ND	50.00	52.29	105	52.75	106	47-161	1	0-20	
Isopropylbenzene	ND	50.00	55.97	112	57.34	115	75-135	2	0-20	
p-Isopropyltoluene	ND	50.00	54.75	109	56.56	113	75-136	3	0-20	
Methylene Chloride	ND	50.00	53.46	107	53.87	108	63-141	1	0-20	
4-Methyl-2-Pentanone	ND	50.00	51.78	104	52.70	105	66-138	2	0-20	
Naphthalene	ND	50.00	52.61	105	53.75	107	59-143	2	0-20	
n-Propylbenzene	ND	50.00	55.96	112	57.20	114	75-133	2	0-20	
Styrene	ND	50.00	50.44	101	49.51	99	70-142	2	0-28	
1,1,1,2-Tetrachloroethane	ND	50.00	58.03	116	59.43	119	75-139	2	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	50.86	102	52.33	105	61-145	3	0-20	
Tetrachloroethene	147.5	50.00	180.0	65	183.0	71	47-143	2	0-20	
Toluene	ND	50.00	54.81	110	55.78	112	75-125	2	0-20	
1,2,3-Trichlorobenzene	3.647	50.00	55.52	104	57.14	107	73-133	3	0-20	
1,2,4-Trichlorobenzene	1.771	50.00	55.53	108	57.24	111	71-137	3	0-20	
1,1,1-Trichloroethane	ND	50.00	54.95	110	55.95	112	75-136	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	58.32	117	57.69	115	42-168	1	0-22	
1,1,2-Trichloroethane	ND	50.00	51.86	104	52.28	105	75-125	1	0-20	
Trichloroethene	179.3	50.00	223.7	89	228.1	97	67-139	2	0-20	
Trichlorofluoromethane	ND	50.00	51.82	104	52.47	105	59-155	1	0-20	
1,2,3-Trichloropropane	ND	50.00	52.66	105	54.28	109	75-127	3	0-20	
1,2,4-Trimethylbenzene	ND	50.00	49.58	99	50.78	102	75-133	2	0-20	
1,3,5-Trimethylbenzene	ND	50.00	54.25	109	54.81	110	75-135	1	0-20	
Vinyl Acetate	ND	50.00	43.37	87	44.33	89	54-180	2	0-25	
Vinyl Chloride	ND	50.00	53.51	107	53.81	108	51-153	1	0-20	
p/m-Xylene	ND	100.0	112.9	113	114.7	115	75-133	2	0-20	
o-Xylene	ND	50.00	56.25	112	57.24	114	75-134	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	52.14	104	52.80	106	64-136	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-3685	LCS	Aqueous	GC/MS XX	10/17/17	10/17/17 12:08	171017L037
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	42.16	84	50-150	33-167	
Benzene	50.00	47.31	95	78-120	71-127	
Bromobenzene	50.00	46.58	93	80-120	73-127	
Bromochloromethane	50.00	49.46	99	77-125	69-133	
Bromodichloromethane	50.00	48.85	98	80-125	72-132	
Bromoform	50.00	50.22	100	68-128	58-138	
Bromomethane	50.00	47.31	95	50-150	33-167	
2-Butanone	50.00	42.58	85	53-137	39-151	
n-Butylbenzene	50.00	52.38	105	78-132	69-141	
sec-Butylbenzene	50.00	49.78	100	80-125	72-132	
tert-Butylbenzene	50.00	49.78	100	80-125	72-132	
Carbon Disulfide	50.00	51.99	104	50-150	33-167	
Carbon Tetrachloride	50.00	51.72	103	67-139	55-151	
Chlorobenzene	50.00	46.54	93	80-120	73-127	
Chloroethane	50.00	38.14	76	64-130	53-141	
Chloroform	50.00	45.71	91	77-120	70-127	
Chloromethane	50.00	44.58	89	56-128	44-140	
2-Chlorotoluene	50.00	47.14	94	80-121	73-128	
4-Chlorotoluene	50.00	48.11	96	80-120	73-127	
Dibromochloromethane	50.00	50.70	101	77-125	69-133	
1,2-Dibromo-3-Chloropropane	50.00	45.53	91	68-128	58-138	
1,2-Dibromoethane	50.00	47.37	95	80-120	73-127	
Dibromomethane	50.00	45.94	92	80-120	73-127	
1,2-Dichlorobenzene	50.00	48.01	96	80-120	73-127	
1,3-Dichlorobenzene	50.00	47.94	96	80-120	73-127	
1,4-Dichlorobenzene	50.00	46.66	93	80-120	73-127	
Dichlorodifluoromethane	50.00	45.66	91	50-150	33-167	
1,1-Dichloroethane	50.00	47.63	95	73-127	64-136	
1,2-Dichloroethane	50.00	48.06	96	75-123	67-131	
1,1-Dichloroethene	50.00	48.26	97	64-136	52-148	
c-1,2-Dichloroethene	50.00	47.85	96	78-120	71-127	
t-1,2-Dichloroethene	50.00	50.29	101	70-130	60-140	
1,2-Dichloropropane	50.00	47.72	95	80-120	73-127	
1,3-Dichloropropane	50.00	45.98	92	80-120	73-127	
2,2-Dichloropropane	50.00	52.98	106	53-155	36-172	
1,1-Dichloropropene	50.00	49.18	98	73-127	64-136	
c-1,3-Dichloropropene	50.00	52.21	104	80-129	72-137	
t-1,3-Dichloropropene	50.00	53.91	108	78-132	69-141	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Ethylbenzene	50.00	48.50	97	80-120	73-127	
2-Hexanone	50.00	42.13	84	59-131	47-143	
Isopropylbenzene	50.00	49.03	98	80-126	72-134	
p-Isopropyltoluene	50.00	51.14	102	80-129	72-137	
Methylene Chloride	50.00	46.74	93	73-127	64-136	
4-Methyl-2-Pentanone	50.00	41.92	84	68-122	59-131	
Naphthalene	50.00	45.83	92	64-136	52-148	
n-Propylbenzene	50.00	49.47	99	80-125	72-132	
Styrene	50.00	49.36	99	80-122	73-129	
1,1,1,2-Tetrachloroethane	50.00	50.43	101	80-126	72-134	
1,1,2,2-Tetrachloroethane	50.00	44.60	89	76-120	69-127	
Tetrachloroethene	50.00	45.45	91	54-144	39-159	
Toluene	50.00	47.29	95	80-122	73-129	
1,2,3-Trichlorobenzene	50.00	47.07	94	76-130	67-139	
1,2,4-Trichlorobenzene	50.00	50.47	101	74-134	64-144	
1,1,1-Trichloroethane	50.00	47.67	95	73-127	64-136	
Hexachloro-1,3-Butadiene	50.00	51.15	102	75-135	65-145	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	55.78	112	53-155	36-172	
1,1,2-Trichloroethane	50.00	45.00	90	80-120	73-127	
Trichloroethene	50.00	48.00	96	77-125	69-133	
Trichlorofluoromethane	50.00	44.85	90	69-141	57-153	
1,2,3-Trichloropropane	50.00	47.69	95	77-125	69-133	
1,2,4-Trimethylbenzene	50.00	48.47	97	80-123	73-130	
1,3,5-Trimethylbenzene	50.00	49.31	99	80-126	72-134	
Vinyl Acetate	50.00	40.13	80	50-150	33-167	
Vinyl Chloride	50.00	42.93	86	63-135	51-147	
p/m-Xylene	100.0	99.43	99	80-125	72-132	
o-Xylene	50.00	49.31	99	80-125	72-132	
Methyl-t-Butyl Ether (MTBE)	50.00	46.09	92	77-120	70-127	

Total number of LCS compounds: 67

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-312-861	LCS	Solid		GC/MS BB	10/12/17	10/12/17 15:11	171012L063			
099-14-312-861	LCSD	Solid		GC/MS BB	10/12/17	10/12/17 15:40	171012L063			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	54.16	108	56.00	112	30-150	10-170	3	0-20	
Benzene	50.00	52.10	104	54.81	110	79-120	72-127	5	0-20	
Bromobenzene	50.00	54.58	109	56.08	112	80-120	73-127	3	0-20	
Bromochloromethane	50.00	59.23	118	59.91	120	80-120	73-127	1	0-20	
Bromodichloromethane	50.00	57.52	115	60.11	120	73-127	64-136	4	0-20	
Bromoform	50.00	52.22	104	51.92	104	55-133	42-146	1	0-20	
Bromomethane	50.00	49.92	100	47.80	96	36-144	18-162	4	0-20	
2-Butanone	50.00	53.29	107	51.10	102	56-176	36-196	4	0-20	
n-Butylbenzene	50.00	53.24	106	57.69	115	78-126	70-134	8	0-20	
sec-Butylbenzene	50.00	51.42	103	56.23	112	79-127	71-135	9	0-20	
tert-Butylbenzene	50.00	52.99	106	55.18	110	80-128	72-136	4	0-20	
Carbon Disulfide	50.00	57.93	116	60.63	121	53-125	41-137	5	0-20	
Carbon Tetrachloride	50.00	60.45	121	64.52	129	58-142	44-156	7	0-20	
Chlorobenzene	50.00	53.15	106	54.87	110	80-120	73-127	3	0-20	
Chloroethane	50.00	58.41	117	57.14	114	60-120	50-130	2	0-20	
Chloroform	50.00	55.47	111	57.29	115	80-120	73-127	3	0-20	
Chloromethane	50.00	54.19	108	53.50	107	50-122	38-134	1	0-20	
2-Chlorotoluene	50.00	54.11	108	56.88	114	80-125	72-132	5	0-20	
4-Chlorotoluene	50.00	52.48	105	55.07	110	80-120	73-127	5	0-20	
Dibromochloromethane	50.00	58.19	116	58.91	118	70-130	60-140	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	60.83	122	60.25	120	54-132	41-145	1	0-20	
1,2-Dibromoethane	50.00	56.56	113	57.41	115	80-120	73-127	1	0-20	
Dibromomethane	50.00	53.28	107	53.31	107	80-122	73-129	0	0-20	
1,2-Dichlorobenzene	50.00	52.73	105	54.76	110	80-120	73-127	4	0-20	
1,3-Dichlorobenzene	50.00	51.75	104	54.92	110	80-120	73-127	6	0-20	
1,4-Dichlorobenzene	50.00	51.98	104	54.42	109	80-120	73-127	5	0-20	
Dichlorodifluoromethane	50.00	54.03	108	52.69	105	32-158	11-179	3	0-20	
1,1-Dichloroethane	50.00	54.79	110	57.21	114	74-120	66-128	4	0-20	
1,2-Dichloroethane	50.00	54.37	109	55.32	111	79-121	72-128	2	0-20	
1,1-Dichloroethene	50.00	54.38	109	57.90	116	71-125	62-134	6	0-20	
c-1,2-Dichloroethene	50.00	56.84	114	58.15	116	80-123	73-130	2	0-20	
t-1,2-Dichloroethene	50.00	57.09	114	59.29	119	80-120	73-127	4	0-20	
1,2-Dichloropropane	50.00	55.42	111	57.21	114	77-120	70-127	3	0-20	
1,3-Dichloropropane	50.00	54.50	109	54.01	108	80-120	73-127	1	0-20	
2,2-Dichloropropane	50.00	56.35	113	60.27	121	58-142	44-156	7	0-20	
1,1-Dichloropropene	50.00	55.69	111	58.91	118	69-120	60-128	6	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	57.45	115	58.33	117	74-128	65-137	2	0-20	ME
t-1,3-Dichloropropene	50.00	61.80	124	61.70	123	66-120	57-129	0	0-20	
Ethylbenzene	50.00	52.75	106	55.86	112	80-120	73-127	6	0-20	
2-Hexanone	50.00	54.51	109	54.60	109	67-151	53-165	0	0-20	
Isopropylbenzene	50.00	52.33	105	55.52	111	80-129	72-137	6	0-20	
p-Isopropyltoluene	50.00	53.60	107	58.01	116	80-122	73-129	8	0-20	
Methylene Chloride	50.00	55.64	111	57.09	114	72-120	64-128	3	0-20	
4-Methyl-2-Pentanone	50.00	54.11	108	54.90	110	72-126	63-135	1	0-20	
Naphthalene	50.00	53.80	108	54.99	110	64-124	54-134	2	0-20	
n-Propylbenzene	50.00	53.45	107	56.64	113	80-122	73-129	6	0-20	
Styrene	50.00	54.79	110	56.46	113	80-123	73-130	3	0-20	
1,1,1,2-Tetrachloroethane	50.00	60.80	122	61.48	123	73-133	63-143	1	0-20	
1,1,2,2-Tetrachloroethane	50.00	53.74	107	54.06	108	77-120	70-127	1	0-20	
Tetrachloroethene	50.00	54.45	109	58.32	117	75-123	67-131	7	0-20	
Toluene	50.00	51.86	104	54.84	110	80-120	73-127	6	0-20	
1,2,3-Trichlorobenzene	50.00	51.73	103	53.73	107	73-127	64-136	4	0-20	
1,2,4-Trichlorobenzene	50.00	55.84	112	57.03	114	74-128	65-137	2	0-20	
1,1,1-Trichloroethane	50.00	55.92	112	58.76	118	71-131	61-141	5	0-20	
1,1,2-Trichloroethane	50.00	56.41	113	56.40	113	80-120	73-127	0	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	54.98	110	57.51	115	77-125	69-133	4	0-20	
Trichloroethene	50.00	54.21	108	58.32	117	80-120	73-127	7	0-20	
Trichlorofluoromethane	50.00	59.51	119	57.88	116	70-136	59-147	3	0-20	
1,2,3-Trichloropropane	50.00	58.48	117	57.26	115	60-120	50-130	2	0-20	
1,2,4-Trimethylbenzene	50.00	51.04	102	55.08	110	75-123	67-131	8	0-20	
1,3,5-Trimethylbenzene	50.00	53.11	106	56.55	113	80-123	73-130	6	0-20	
Vinyl Acetate	50.00	50.18	100	50.59	101	51-159	33-177	1	0-20	
Vinyl Chloride	50.00	58.96	118	55.39	111	68-120	59-129	6	0-20	
p/m-Xylene	100.0	103.7	104	108.4	108	80-122	73-129	4	0-20	
o-Xylene	50.00	52.35	105	55.27	111	79-127	71-135	5	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	56.63	113	56.81	114	64-124	54-134	0	0-20	

Total number of LCS compounds: 66

Total number of ME compounds: 1

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-312-859	LCS	Solid		GC/MS BB	10/13/17	10/13/17 15:33	171013L021			
099-14-312-859	LCSD	Solid		GC/MS BB	10/13/17	10/13/17 16:02	171013L021			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	65.71	131	57.49	115	30-150	10-170	13	0-20	
Benzene	50.00	55.54	111	50.33	101	79-120	72-127	10	0-20	
Bromobenzene	50.00	56.48	113	51.58	103	80-120	73-127	9	0-20	
Bromochloromethane	50.00	60.77	122	55.81	112	80-120	73-127	9	0-20	ME
Bromodichloromethane	50.00	59.54	119	54.87	110	73-127	64-136	8	0-20	
Bromoform	50.00	53.97	108	49.33	99	55-133	42-146	9	0-20	
Bromomethane	50.00	49.10	98	42.30	85	36-144	18-162	15	0-20	
2-Butanone	50.00	62.15	124	54.73	109	56-176	36-196	13	0-20	
n-Butylbenzene	50.00	54.27	109	48.69	97	78-126	70-134	11	0-20	
sec-Butylbenzene	50.00	54.67	109	47.78	96	79-127	71-135	13	0-20	
tert-Butylbenzene	50.00	54.96	110	48.88	98	80-128	72-136	12	0-20	
Carbon Disulfide	50.00	59.82	120	53.11	106	53-125	41-137	12	0-20	
Carbon Tetrachloride	50.00	62.23	124	56.59	113	58-142	44-156	9	0-20	
Chlorobenzene	50.00	54.56	109	49.92	100	80-120	73-127	9	0-20	
Chloroethane	50.00	55.34	111	50.03	100	60-120	50-130	10	0-20	
Chloroform	50.00	58.88	118	52.28	105	80-120	73-127	12	0-20	
Chloromethane	50.00	53.28	107	49.51	99	50-122	38-134	7	0-20	
2-Chlorotoluene	50.00	56.14	112	50.79	102	80-125	72-132	10	0-20	
4-Chlorotoluene	50.00	54.38	109	49.34	99	80-120	73-127	10	0-20	
Dibromochloromethane	50.00	60.84	122	55.39	111	70-130	60-140	9	0-20	
1,2-Dibromo-3-Chloropropane	50.00	62.07	124	58.96	118	54-132	41-145	5	0-20	
1,2-Dibromoethane	50.00	60.06	120	54.52	109	80-120	73-127	10	0-20	
Dibromomethane	50.00	56.62	113	51.70	103	80-122	73-129	9	0-20	
1,2-Dichlorobenzene	50.00	54.42	109	49.73	99	80-120	73-127	9	0-20	
1,3-Dichlorobenzene	50.00	54.27	109	49.02	98	80-120	73-127	10	0-20	
1,4-Dichlorobenzene	50.00	54.31	109	48.37	97	80-120	73-127	12	0-20	
Dichlorodifluoromethane	50.00	56.58	113	49.99	100	32-158	11-179	12	0-20	
1,1-Dichloroethane	50.00	59.09	118	52.78	106	74-120	66-128	11	0-20	
1,2-Dichloroethane	50.00	56.88	114	51.94	104	79-121	72-128	9	0-20	
1,1-Dichloroethene	50.00	57.02	114	50.84	102	71-125	62-134	11	0-20	
c-1,2-Dichloroethene	50.00	60.78	122	52.99	106	80-123	73-130	14	0-20	
t-1,2-Dichloroethene	50.00	60.08	120	52.29	105	80-120	73-127	14	0-20	
1,2-Dichloropropane	50.00	59.06	118	53.49	107	77-120	70-127	10	0-20	
1,3-Dichloropropane	50.00	57.91	116	52.50	105	80-120	73-127	10	0-20	
2,2-Dichloropropane	50.00	59.90	120	52.37	105	58-142	44-156	13	0-20	
1,1-Dichloropropene	50.00	59.34	119	52.00	104	69-120	60-128	13	0-20	

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/11/17
Work Order: 17-10-0812
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 6 of 6

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	60.44	121	55.13	110	74-128	65-137	9	0-20	ME
t-1,3-Dichloropropene	50.00	64.27	129	59.15	118	66-120	57-129	8	0-20	
Ethylbenzene	50.00	54.53	109	49.81	100	80-120	73-127	9	0-20	
2-Hexanone	50.00	60.26	121	54.61	109	67-151	53-165	10	0-20	ME
Isopropylbenzene	50.00	54.50	109	48.48	97	80-129	72-137	12	0-20	
p-Isopropyltoluene	50.00	55.30	111	48.48	97	80-122	73-129	13	0-20	
Methylene Chloride	50.00	59.84	120	53.83	108	72-120	64-128	11	0-20	ME
4-Methyl-2-Pentanone	50.00	60.58	121	56.04	112	72-126	63-135	8	0-20	
Naphthalene	50.00	57.06	114	52.39	105	64-124	54-134	9	0-20	
n-Propylbenzene	50.00	55.38	111	49.53	99	80-122	73-129	11	0-20	ME
Styrene	50.00	56.50	113	51.70	103	80-123	73-130	9	0-20	
1,1,1,2-Tetrachloroethane	50.00	63.06	126	57.27	115	73-133	63-143	10	0-20	
1,1,2,2-Tetrachloroethane	50.00	58.73	117	51.94	104	77-120	70-127	12	0-20	ME
Tetrachloroethene	50.00	53.18	106	46.19	92	75-123	67-131	14	0-20	
Toluene	50.00	53.65	107	48.43	97	80-120	73-127	10	0-20	
1,2,3-Trichlorobenzene	50.00	53.40	107	49.03	98	73-127	64-136	9	0-20	ME
1,2,4-Trichlorobenzene	50.00	56.25	113	50.57	101	74-128	65-137	11	0-20	
1,1,1-Trichloroethane	50.00	59.19	118	51.48	103	71-131	61-141	14	0-20	
1,1,2-Trichloroethane	50.00	60.19	120	54.10	108	80-120	73-127	11	0-20	ME
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	57.34	115	50.76	102	77-125	69-133	12	0-20	
Trichloroethene	50.00	56.92	114	50.58	101	80-120	73-127	12	0-20	
Trichlorofluoromethane	50.00	60.41	121	53.22	106	70-136	59-147	13	0-20	ME
1,2,3-Trichloropropane	50.00	61.76	124	56.34	113	60-120	50-130	9	0-20	
1,2,4-Trimethylbenzene	50.00	53.41	107	47.60	95	75-123	67-131	12	0-20	
1,3,5-Trimethylbenzene	50.00	55.36	111	49.14	98	80-123	73-130	12	0-20	ME
Vinyl Acetate	50.00	54.90	110	50.20	100	51-159	33-177	9	0-20	
Vinyl Chloride	50.00	56.46	113	51.01	102	68-120	59-129	10	0-20	
p/m-Xylene	100.0	105.7	106	95.22	95	80-122	73-129	10	0-20	ME
o-Xylene	50.00	54.53	109	49.16	98	79-127	71-135	10	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	60.21	120	53.93	108	64-124	54-134	11	0-20	

Total number of LCS compounds: 66

Total number of ME compounds: 3

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 17-10-0812

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8260B	EPA 5035	1120	GC/MS BB	2
EPA 8260B	EPA 5030C	1135	GC/MS XX	2


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Glossary of Terms and Qualifiers

Work Order: 17-10-0812

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofins.com or call us.

LABORATORY CLIENT:

Geosyntec Consultants

ADDRESS:

2100 Main St # 150

CITY:

Huntington Beach

STATE:

CA

ZIP:

92648

TEL:

714-465-1258

E-MAIL:

gwharton@geosyntec.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

EDD

☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

WO NO. / LAB USE ONLY

17-10-0812

CHAIN-OF-CUSTODY RECORD

Date: 10/11/17

Page: 1 of 1

LABORATORY CLIENT:	Geosyntec Consultants	CLIENT PROJECT NAME / NO.:	777 N. Front St.	P.O. NO.:	HR1305D-01
ADDRESS:	2100 Main St # 150	PROJECT CONTACT:	Goodwin Wharton	LAB CONTACT OR QUOTE NO.:	Stephen Nowak
CITY:	Huntington Beach	GLOBAL ID:		SAMPLER(S) (PRINT)	G. Wharton
STATE:	CA	LOG CODE:			
ZIP:	92648				
TEL:	714-465-1258				
E-MAIL:	gwharton@geosyntec.com				

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) ☐ GRO	TPH (d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH	BTX / MTBE ☐ 8260 ☐	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6
		DATE	TIME																			
1	NP-3-16	10/10/17	15:25	S	4	X								X								
2	NP-3-32	10/10/17	15:30	S	4	X								X								
3	NP-3-46	10/10/17	15:40	S	4	X								X								
4	NP-4-10	10/14/17	09:05	S	4	X								X								
5	NP-4-18	10/14/17	09:35	S	4	X								X								
6	NP-4-40	10/14/17	09:50	S	4	X								X								
7	NP-4-58	10/14/17	10:45	S	4	X								X								
8	NP-4-80	10/14/17	11:10	S	4	X								X								
9	EB-NP-4	10/14/17	13:20	L	2	X								X								

Relinquished by: (Signature)	Goodwin Wharton	Received by: (Signature/Affiliation)	EG	Date: 10/11/17	Time: 14:50
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	EG	Date: 10/11/17	Time: 1845
Relinquished by: (Signature)		Received by: (Signature/Affiliation)		Date:	Time:

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1CLIENT: GEOSYNTELDATE: 10/11/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.4°C); Temperature (w/o CF): 3.5 °C (w/ CF): 3.1 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 804

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 804Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 1140

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/ASamples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace ☒ Yes ☐ No ☐ N/A☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☒ VOA² ☐ VOAn₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBznna (pH__9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH__2) ☐ 250PB ☐ 250PBn (pH__2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH__2) ☐ 500PB☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs (pH__2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PBna (pH__12) ☐ _____ ☐ _____Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® (____) ☒ TerraCores® (3) ☒ 202 PJ ☐ _____ ☐ _____Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (____): ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1140s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, znna = Zn (CH₃CO₂)₂ + NaOHReviewed by: 1017



Supplemental Report 1

The original report has been
revised/corrected.

**WORK ORDER NUMBER: 17-10-0916**

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** Geosyntec Consultants**Client Project Name:** 777 N. Front Street / HR1305D-01

Attention: Goodwin Wharton
2100 Main Street
Suite 150
Huntington Beach, CA 92648-2460

A handwritten signature in black ink, appearing to read "S. Nowak".

Approved for release on 11/03/2017 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Contents

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 Work Order Number: 17-10-0916

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Work Order Narrative

Work Order: 17-10-0916

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/12/17. They were assigned to Work Order 17-10-0916.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



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Sample Summary

Client:	Geosyntec Consultants	Work Order:	17-10-0916
	2100 Main Street, Suite 150	Project Name:	777 N. Front Street / HR1305D-01
	Huntington Beach, CA 92648-2460	PO Number:	
		Date/Time Received:	10/12/17 17:15
		Number of Containers:	36

Attn: Goodwin Wharton

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
NP-5-18	17-10-0916-1	10/11/17 16:05	4	Solid
NP-5-36	17-10-0916-2	10/11/17 16:30	4	Solid
NP-5-45	17-10-0916-3	10/11/17 16:50	4	Solid
NP-5-56	17-10-0916-4	10/11/17 17:00	4	Solid
NP-8-18	17-10-0916-5	10/12/17 09:10	4	Solid
NP-8-24	17-10-0916-6	10/12/17 09:50	4	Solid
NP-8-42	17-10-0916-7	10/12/17 10:05	4	Solid
NP-8-59	17-10-0916-8	10/12/17 10:40	4	Solid
NP-8-81	17-10-0916-9	10/12/17 11:45	4	Solid


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Detections Summary

Client: Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Work Order: 17-10-0916
Project Name: 777 N. Front Street / HR1305D-01
Received: 10/12/17

Attn: Goodwin Wharton

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
NP-5-45 (17-10-0916-3)						
Acetone	6.6	J	5.7*	ug/kg	EPA 8260B	EPA 5035
Benzene	1.3		0.91	ug/kg	EPA 8260B	EPA 5035
Toluene	1.6		0.91	ug/kg	EPA 8260B	EPA 5035
1,3,5-Trimethylbenzene	0.72	J	0.50*	ug/kg	EPA 8260B	EPA 5035
p/m-Xylene	1.2	J	0.24*	ug/kg	EPA 8260B	EPA 5035
NP-5-56 (17-10-0916-4)						
Acetone	6.2	J	5.5*	ug/kg	EPA 8260B	EPA 5035
Chloroform	0.35	J	0.21*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	2.4		0.88	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	3.0		1.8	ug/kg	EPA 8260B	EPA 5035
NP-8-18 (17-10-0916-5)						
Acetone	29	J	5.0*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.13	J	0.10*	ug/kg	EPA 8260B	EPA 5035
NP-8-24 (17-10-0916-6)						
Acetone	20	J	4.9*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.13	J	0.10*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.21	J	0.16*	ug/kg	EPA 8260B	EPA 5035
NP-8-42 (17-10-0916-7)						
Acetone	10	J	5.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.33	J	0.11*	ug/kg	EPA 8260B	EPA 5035
Tetrachloroethene	0.19	J	0.17*	ug/kg	EPA 8260B	EPA 5035
NP-8-81 (17-10-0916-9)						
Tetrachloroethene	120		44	ug/kg	EPA 8260B	EPA 5035
Trichloroethene	79	J	13*	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-5-18	17-10-0916-1-E	10/11/17 16:05	Solid	GC/MS BB	10/11/17	10/13/17 21:47	171013L021

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2400	300	50.0	
Benzene	ND	48	6.3	50.0	
Bromobenzene	ND	48	10	50.0	
Bromochloromethane	ND	97	33	50.0	
Bromodichloromethane	ND	48	11	50.0	
Bromoform	ND	240	38	50.0	
Bromomethane	ND	970	450	50.0	
2-Butanone	ND	970	180	50.0	
n-Butylbenzene	ND	48	7.6	50.0	
sec-Butylbenzene	ND	48	28	50.0	
tert-Butylbenzene	ND	48	7.3	50.0	
Carbon Disulfide	ND	480	15	50.0	
Carbon Tetrachloride	ND	48	14	50.0	
Chlorobenzene	ND	48	11	50.0	
Chloroethane	ND	97	72	50.0	
Chloroform	ND	48	12	50.0	
Chloromethane	ND	970	15	50.0	
2-Chlorotoluene	ND	48	11	50.0	
4-Chlorotoluene	ND	48	10	50.0	
Dibromochloromethane	ND	97	28	50.0	
1,2-Dibromo-3-Chloropropane	ND	240	84	50.0	
1,2-Dibromoethane	ND	48	12	50.0	
Dibromomethane	ND	48	37	50.0	
1,2-Dichlorobenzene	ND	48	11	50.0	
1,3-Dichlorobenzene	ND	48	8.5	50.0	
1,4-Dichlorobenzene	ND	48	11	50.0	
Dichlorodifluoromethane	ND	97	21	50.0	
1,1-Dichloroethane	ND	48	10	50.0	
1,2-Dichloroethane	ND	48	15	50.0	
1,1-Dichloroethene	ND	48	17	50.0	
c-1,2-Dichloroethene	ND	48	14	50.0	
t-1,2-Dichloroethene	ND	48	24	50.0	
1,2-Dichloropropane	ND	48	21	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,3-Dichloropropane	ND	48	12	50.0	
2,2-Dichloropropane	ND	240	16	50.0	
1,1-Dichloropropene	ND	97	16	50.0	
c-1,3-Dichloropropene	ND	48	12	50.0	
t-1,3-Dichloropropene	ND	97	29	50.0	
Ethylbenzene	ND	48	7.3	50.0	
2-Hexanone	ND	970	85	50.0	
Isopropylbenzene	ND	48	26	50.0	
p-Isopropyltoluene	ND	48	30	50.0	
Methylene Chloride	ND	480	65	50.0	
4-Methyl-2-Pentanone	ND	970	210	50.0	
Naphthalene	ND	480	39	50.0	
n-Propylbenzene	ND	97	24	50.0	
Styrene	ND	48	29	50.0	
1,1,1,2-Tetrachloroethane	ND	48	12	50.0	
1,1,2,2-Tetrachloroethane	ND	97	17	50.0	
Tetrachloroethene	ND	48	10	50.0	
Toluene	ND	48	25	50.0	
1,2,3-Trichlorobenzene	ND	97	44	50.0	
1,2,4-Trichlorobenzene	ND	97	15	50.0	
1,1,1-Trichloroethane	ND	48	11	50.0	
1,1,2-Trichloroethane	ND	48	17	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	480	17	50.0	
Trichloroethene	ND	97	15	50.0	
Trichlorofluoromethane	ND	480	18	50.0	
1,2,3-Trichloropropane	ND	97	40	50.0	
1,2,4-Trimethylbenzene	ND	97	28	50.0	
1,3,5-Trimethylbenzene	ND	97	26	50.0	
Vinyl Acetate	ND	480	230	50.0	
Vinyl Chloride	ND	48	24	50.0	
p/m-Xylene	ND	97	13	50.0	
o-Xylene	ND	48	27	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	97	14	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	96	79-133	
1,2-Dichloroethane-d4	104	71-155	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-5-36	17-10-0916-2-E	10/11/17 16:30	Solid	GC/MS BB	10/11/17	10/13/17 22:16	171013L021

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2300	290	50.0	
Benzene	ND	47	6.0	50.0	
Bromobenzene	ND	47	9.8	50.0	
Bromochloromethane	ND	93	32	50.0	
Bromodichloromethane	ND	47	11	50.0	
Bromoform	ND	230	37	50.0	
Bromomethane	ND	930	440	50.0	
2-Butanone	ND	930	180	50.0	
n-Butylbenzene	ND	47	7.3	50.0	
sec-Butylbenzene	ND	47	27	50.0	
tert-Butylbenzene	ND	47	7.0	50.0	
Carbon Disulfide	ND	470	14	50.0	
Carbon Tetrachloride	ND	47	13	50.0	
Chlorobenzene	ND	47	10	50.0	
Chloroethane	ND	93	69	50.0	
Chloroform	ND	47	11	50.0	
Chloromethane	ND	930	14	50.0	
2-Chlorotoluene	ND	47	11	50.0	
4-Chlorotoluene	ND	47	9.9	50.0	
Dibromochloromethane	ND	93	27	50.0	
1,2-Dibromo-3-Chloropropane	ND	230	81	50.0	
1,2-Dibromoethane	ND	47	12	50.0	
Dibromomethane	ND	47	36	50.0	
1,2-Dichlorobenzene	ND	47	11	50.0	
1,3-Dichlorobenzene	ND	47	8.2	50.0	
1,4-Dichlorobenzene	ND	47	10	50.0	
Dichlorodifluoromethane	ND	93	21	50.0	
1,1-Dichloroethane	ND	47	9.8	50.0	
1,2-Dichloroethane	ND	47	15	50.0	
1,1-Dichloroethene	ND	47	16	50.0	
c-1,2-Dichloroethene	ND	47	13	50.0	
t-1,2-Dichloroethene	ND	47	24	50.0	
1,2-Dichloropropane	ND	47	20	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,3-Dichloropropane	ND	47	12	50.0	
2,2-Dichloropropane	ND	230	15	50.0	
1,1-Dichloropropene	ND	93	15	50.0	
c-1,3-Dichloropropene	ND	47	12	50.0	
t-1,3-Dichloropropene	ND	93	28	50.0	
Ethylbenzene	ND	47	7.1	50.0	
2-Hexanone	ND	930	82	50.0	
Isopropylbenzene	ND	47	25	50.0	
p-Isopropyltoluene	ND	47	29	50.0	
Methylene Chloride	ND	470	62	50.0	
4-Methyl-2-Pentanone	ND	930	200	50.0	
Naphthalene	ND	470	38	50.0	
n-Propylbenzene	ND	93	23	50.0	
Styrene	ND	47	28	50.0	
1,1,1,2-Tetrachloroethane	ND	47	11	50.0	
1,1,2,2-Tetrachloroethane	ND	93	16	50.0	
Tetrachloroethene	ND	47	9.8	50.0	
Toluene	ND	47	24	50.0	
1,2,3-Trichlorobenzene	ND	93	43	50.0	
1,2,4-Trichlorobenzene	ND	93	14	50.0	
1,1,1-Trichloroethane	ND	47	10	50.0	
1,1,2-Trichloroethane	ND	47	16	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	470	16	50.0	
Trichloroethene	ND	93	14	50.0	
Trichlorofluoromethane	ND	470	17	50.0	
1,2,3-Trichloropropane	ND	93	39	50.0	
1,2,4-Trimethylbenzene	ND	93	27	50.0	
1,3,5-Trimethylbenzene	ND	93	26	50.0	
Vinyl Acetate	ND	470	220	50.0	
Vinyl Chloride	ND	47	23	50.0	
p/m-Xylene	ND	93	12	50.0	
o-Xylene	ND	47	26	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	93	14	50.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	98	80-120			
Dibromofluoromethane	97	79-133			
1,2-Dichloroethane-d4	102	71-155			
Toluene-d8	99	80-120			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-5-45	17-10-0916-3-C	10/11/17 16:50	Solid	GC/MS BB	10/11/17	10/13/17 19:23	171013L020

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	6.6	45	5.7	1.00	J
Benzene	1.3	0.91	0.12	1.00	
Bromobenzene	ND	0.91	0.19	1.00	
Bromochloromethane	ND	1.8	0.63	1.00	
Bromodichloromethane	ND	0.91	0.21	1.00	
Bromoform	ND	4.5	0.72	1.00	
Bromomethane	ND	18	8.5	1.00	
2-Butanone	ND	18	3.4	1.00	
n-Butylbenzene	ND	0.91	0.14	1.00	
sec-Butylbenzene	ND	0.91	0.52	1.00	
tert-Butylbenzene	ND	0.91	0.14	1.00	
Carbon Disulfide	ND	9.1	0.28	1.00	
Carbon Tetrachloride	ND	0.91	0.26	1.00	
Chlorobenzene	ND	0.91	0.20	1.00	
Chloroethane	ND	1.8	1.4	1.00	
Chloroform	ND	0.91	0.22	1.00	
Chloromethane	ND	18	0.28	1.00	
2-Chlorotoluene	ND	0.91	0.21	1.00	
4-Chlorotoluene	ND	0.91	0.19	1.00	
Dibromochloromethane	ND	1.8	0.52	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.6	1.00	
1,2-Dibromoethane	ND	0.91	0.23	1.00	
Dibromomethane	ND	0.91	0.70	1.00	
1,2-Dichlorobenzene	ND	0.91	0.21	1.00	
1,3-Dichlorobenzene	ND	0.91	0.16	1.00	
1,4-Dichlorobenzene	ND	0.91	0.20	1.00	
Dichlorodifluoromethane	ND	1.8	0.40	1.00	
1,1-Dichloroethane	ND	0.91	0.19	1.00	
1,2-Dichloroethane	ND	0.91	0.28	1.00	
1,1-Dichloroethene	ND	0.91	0.31	1.00	
c-1,2-Dichloroethene	ND	0.91	0.25	1.00	
t-1,2-Dichloroethene	ND	0.91	0.46	1.00	
1,2-Dichloropropane	ND	0.91	0.40	1.00	
1,3-Dichloropropane	ND	0.91	0.23	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.5	0.30	1.00	
1,1-Dichloropropene	ND	1.8	0.30	1.00	
c-1,3-Dichloropropene	ND	0.91	0.23	1.00	
t-1,3-Dichloropropene	ND	1.8	0.55	1.00	
Ethylbenzene	ND	0.91	0.14	1.00	
2-Hexanone	ND	18	1.6	1.00	
Isopropylbenzene	ND	0.91	0.49	1.00	
p-Isopropyltoluene	ND	0.91	0.57	1.00	
Methylene Chloride	ND	9.1	1.2	1.00	
4-Methyl-2-Pentanone	ND	18	3.9	1.00	
Naphthalene	ND	9.1	0.74	1.00	
n-Propylbenzene	ND	1.8	0.45	1.00	
Styrene	ND	0.91	0.55	1.00	
1,1,1,2-Tetrachloroethane	ND	0.91	0.22	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	1.00	
Tetrachloroethene	ND	0.91	0.19	1.00	
Toluene	1.6	0.91	0.47	1.00	
1,2,3-Trichlorobenzene	ND	1.8	0.83	1.00	
1,2,4-Trichlorobenzene	ND	1.8	0.28	1.00	
1,1,1-Trichloroethane	ND	0.91	0.20	1.00	
1,1,2-Trichloroethane	ND	0.91	0.32	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.1	0.32	1.00	
Trichloroethene	ND	1.8	0.27	1.00	
Trichlorofluoromethane	ND	9.1	0.34	1.00	
1,2,3-Trichloropropane	ND	1.8	0.75	1.00	
1,2,4-Trimethylbenzene	ND	1.8	0.53	1.00	
1,3,5-Trimethylbenzene	0.72	1.8	0.50	1.00	J
Vinyl Acetate	ND	9.1	4.3	1.00	
Vinyl Chloride	ND	0.91	0.46	1.00	
p/m-Xylene	1.2	1.8	0.24	1.00	J
o-Xylene	ND	0.91	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	101	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	112	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-5-56	17-10-0916-4-C	10/11/17 17:00	Solid	GC/MS BB	10/11/17	10/13/17 19:52	171013L020

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	6.2	44	5.5	1.00	J
Benzene	ND	0.88	0.11	1.00	
Bromobenzene	ND	0.88	0.18	1.00	
Bromochloromethane	ND	1.8	0.60	1.00	
Bromodichloromethane	ND	0.88	0.20	1.00	
Bromoform	ND	4.4	0.70	1.00	
Bromomethane	ND	18	8.3	1.00	
2-Butanone	ND	18	3.3	1.00	
n-Butylbenzene	ND	0.88	0.14	1.00	
sec-Butylbenzene	ND	0.88	0.51	1.00	
tert-Butylbenzene	ND	0.88	0.13	1.00	
Carbon Disulfide	ND	8.8	0.27	1.00	
Carbon Tetrachloride	ND	0.88	0.25	1.00	
Chlorobenzene	ND	0.88	0.20	1.00	
Chloroethane	ND	1.8	1.3	1.00	
Chloroform	0.35	0.88	0.21	1.00	J
Chloromethane	ND	18	0.27	1.00	
2-Chlorotoluene	ND	0.88	0.20	1.00	
4-Chlorotoluene	ND	0.88	0.19	1.00	
Dibromochloromethane	ND	1.8	0.50	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	1.00	
1,2-Dibromoethane	ND	0.88	0.22	1.00	
Dibromomethane	ND	0.88	0.68	1.00	
1,2-Dichlorobenzene	ND	0.88	0.20	1.00	
1,3-Dichlorobenzene	ND	0.88	0.15	1.00	
1,4-Dichlorobenzene	ND	0.88	0.19	1.00	
Dichlorodifluoromethane	ND	1.8	0.39	1.00	
1,1-Dichloroethane	ND	0.88	0.19	1.00	
1,2-Dichloroethane	ND	0.88	0.27	1.00	
1,1-Dichloroethene	ND	0.88	0.30	1.00	
c-1,2-Dichloroethene	ND	0.88	0.24	1.00	
t-1,2-Dichloroethene	ND	0.88	0.44	1.00	
1,2-Dichloropropane	ND	0.88	0.38	1.00	
1,3-Dichloropropane	ND	0.88	0.22	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.4	0.29	1.00	
1,1-Dichloropropene	ND	1.8	0.29	1.00	
c-1,3-Dichloropropene	ND	0.88	0.22	1.00	
t-1,3-Dichloropropene	ND	1.8	0.53	1.00	
Ethylbenzene	ND	0.88	0.13	1.00	
2-Hexanone	ND	18	1.5	1.00	
Isopropylbenzene	ND	0.88	0.48	1.00	
p-Isopropyltoluene	ND	0.88	0.55	1.00	
Methylene Chloride	ND	8.8	1.2	1.00	
4-Methyl-2-Pentanone	ND	18	3.8	1.00	
Naphthalene	ND	8.8	0.71	1.00	
n-Propylbenzene	ND	1.8	0.44	1.00	
Styrene	ND	0.88	0.53	1.00	
1,1,1,2-Tetrachloroethane	ND	0.88	0.21	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	0.30	1.00	
Tetrachloroethene	2.4	0.88	0.18	1.00	
Toluene	ND	0.88	0.45	1.00	
1,2,3-Trichlorobenzene	ND	1.8	0.80	1.00	
1,2,4-Trichlorobenzene	ND	1.8	0.27	1.00	
1,1,1-Trichloroethane	ND	0.88	0.20	1.00	
1,1,2-Trichloroethane	ND	0.88	0.31	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.8	0.31	1.00	
Trichloroethene	3.0	1.8	0.26	1.00	
Trichlorofluoromethane	ND	8.8	0.33	1.00	
1,2,3-Trichloropropane	ND	1.8	0.73	1.00	
1,2,4-Trimethylbenzene	ND	1.8	0.51	1.00	
1,3,5-Trimethylbenzene	ND	1.8	0.48	1.00	
Vinyl Acetate	ND	8.8	4.2	1.00	
Vinyl Chloride	ND	0.88	0.44	1.00	
p/m-Xylene	ND	1.8	0.23	1.00	
o-Xylene	ND	0.88	0.49	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	115	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-8-18	17-10-0916-5-C	10/12/17 09:10	Solid	GC/MS BB	10/12/17	10/13/17 20:21	171013L020

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	29	40	5.0	1.00	J
Benzene	0.13	0.80	0.10	1.00	J
Bromobenzene	ND	0.80	0.17	1.00	
Bromochloromethane	ND	1.6	0.55	1.00	
Bromodichloromethane	ND	0.80	0.19	1.00	
Bromoform	ND	4.0	0.64	1.00	
Bromomethane	ND	16	7.6	1.00	
2-Butanone	ND	16	3.0	1.00	
n-Butylbenzene	ND	0.80	0.13	1.00	
sec-Butylbenzene	ND	0.80	0.46	1.00	
tert-Butylbenzene	ND	0.80	0.12	1.00	
Carbon Disulfide	ND	8.0	0.25	1.00	
Carbon Tetrachloride	ND	0.80	0.23	1.00	
Chlorobenzene	ND	0.80	0.18	1.00	
Chloroethane	ND	1.6	1.2	1.00	
Chloroform	ND	0.80	0.19	1.00	
Chloromethane	ND	16	0.24	1.00	
2-Chlorotoluene	ND	0.80	0.19	1.00	
4-Chlorotoluene	ND	0.80	0.17	1.00	
Dibromochloromethane	ND	1.6	0.46	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.0	1.4	1.00	
1,2-Dibromoethane	ND	0.80	0.20	1.00	
Dibromomethane	ND	0.80	0.62	1.00	
1,2-Dichlorobenzene	ND	0.80	0.18	1.00	
1,3-Dichlorobenzene	ND	0.80	0.14	1.00	
1,4-Dichlorobenzene	ND	0.80	0.18	1.00	
Dichlorodifluoromethane	ND	1.6	0.36	1.00	
1,1-Dichloroethane	ND	0.80	0.17	1.00	
1,2-Dichloroethane	ND	0.80	0.25	1.00	
1,1-Dichloroethene	ND	0.80	0.28	1.00	
c-1,2-Dichloroethene	ND	0.80	0.22	1.00	
t-1,2-Dichloroethene	ND	0.80	0.41	1.00	
1,2-Dichloropropane	ND	0.80	0.35	1.00	
1,3-Dichloropropane	ND	0.80	0.20	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.0	0.27	1.00	
1,1-Dichloropropene	ND	1.6	0.26	1.00	
c-1,3-Dichloropropene	ND	0.80	0.20	1.00	
t-1,3-Dichloropropene	ND	1.6	0.49	1.00	
Ethylbenzene	ND	0.80	0.12	1.00	
2-Hexanone	ND	16	1.4	1.00	
Isopropylbenzene	ND	0.80	0.44	1.00	
p-Isopropyltoluene	ND	0.80	0.51	1.00	
Methylene Chloride	ND	8.0	1.1	1.00	
4-Methyl-2-Pentanone	ND	16	3.5	1.00	
Naphthalene	ND	8.0	0.65	1.00	
n-Propylbenzene	ND	1.6	0.40	1.00	
Styrene	ND	0.80	0.49	1.00	
1,1,1,2-Tetrachloroethane	ND	0.80	0.19	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	0.28	1.00	
Tetrachloroethene	ND	0.80	0.17	1.00	
Toluene	ND	0.80	0.41	1.00	
1,2,3-Trichlorobenzene	ND	1.6	0.73	1.00	
1,2,4-Trichlorobenzene	ND	1.6	0.25	1.00	
1,1,1-Trichloroethane	ND	0.80	0.18	1.00	
1,1,2-Trichloroethane	ND	0.80	0.28	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.0	0.28	1.00	
Trichloroethene	ND	1.6	0.24	1.00	
Trichlorofluoromethane	ND	8.0	0.30	1.00	
1,2,3-Trichloropropane	ND	1.6	0.67	1.00	
1,2,4-Trimethylbenzene	ND	1.6	0.47	1.00	
1,3,5-Trimethylbenzene	ND	1.6	0.44	1.00	
Vinyl Acetate	ND	8.0	3.8	1.00	
Vinyl Chloride	ND	0.80	0.40	1.00	
p/m-Xylene	ND	1.6	0.21	1.00	
o-Xylene	ND	0.80	0.45	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.24	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	102	79-133	
1,2-Dichloroethane-d4	118	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-8-24	17-10-0916-6-C	10/12/17 09:50	Solid	GC/MS BB	10/12/17	10/13/17 20:50	171013L020

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	20	39	4.9	1.00	J
Benzene	0.13	0.78	0.10	1.00	J
Bromobenzene	ND	0.78	0.16	1.00	
Bromochloromethane	ND	1.6	0.54	1.00	
Bromodichloromethane	ND	0.78	0.18	1.00	
Bromoform	ND	3.9	0.62	1.00	
Bromomethane	ND	16	7.4	1.00	
2-Butanone	ND	16	3.0	1.00	
n-Butylbenzene	ND	0.78	0.12	1.00	
sec-Butylbenzene	ND	0.78	0.45	1.00	
tert-Butylbenzene	ND	0.78	0.12	1.00	
Carbon Disulfide	ND	7.8	0.24	1.00	
Carbon Tetrachloride	ND	0.78	0.22	1.00	
Chlorobenzene	ND	0.78	0.18	1.00	
Chloroethane	ND	1.6	1.2	1.00	
Chloroform	ND	0.78	0.19	1.00	
Chloromethane	ND	16	0.24	1.00	
2-Chlorotoluene	ND	0.78	0.18	1.00	
4-Chlorotoluene	ND	0.78	0.17	1.00	
Dibromochloromethane	ND	1.6	0.45	1.00	
1,2-Dibromo-3-Chloropropane	ND	3.9	1.4	1.00	
1,2-Dibromoethane	ND	0.78	0.20	1.00	
Dibromomethane	ND	0.78	0.61	1.00	
1,2-Dichlorobenzene	ND	0.78	0.18	1.00	
1,3-Dichlorobenzene	ND	0.78	0.14	1.00	
1,4-Dichlorobenzene	ND	0.78	0.17	1.00	
Dichlorodifluoromethane	ND	1.6	0.35	1.00	
1,1-Dichloroethane	ND	0.78	0.17	1.00	
1,2-Dichloroethane	ND	0.78	0.25	1.00	
1,1-Dichloroethene	ND	0.78	0.27	1.00	
c-1,2-Dichloroethene	ND	0.78	0.22	1.00	
t-1,2-Dichloroethene	ND	0.78	0.40	1.00	
1,2-Dichloropropane	ND	0.78	0.34	1.00	
1,3-Dichloropropane	ND	0.78	0.20	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Parameter	Result	RL	MDL	DF	Qualifiers
2,2-Dichloropropane	ND	3.9	0.26	1.00	
1,1-Dichloropropene	ND	1.6	0.26	1.00	
c-1,3-Dichloropropene	ND	0.78	0.20	1.00	
t-1,3-Dichloropropene	ND	1.6	0.47	1.00	
Ethylbenzene	ND	0.78	0.12	1.00	
2-Hexanone	ND	16	1.4	1.00	
Isopropylbenzene	ND	0.78	0.43	1.00	
p-Isopropyltoluene	ND	0.78	0.49	1.00	
Methylene Chloride	ND	7.8	1.0	1.00	
4-Methyl-2-Pentanone	ND	16	3.4	1.00	
Naphthalene	ND	7.8	0.64	1.00	
n-Propylbenzene	ND	1.6	0.39	1.00	
Styrene	ND	0.78	0.47	1.00	
1,1,1,2-Tetrachloroethane	ND	0.78	0.19	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	0.27	1.00	
Tetrachloroethene	0.21	0.78	0.16	1.00	J
Toluene	ND	0.78	0.40	1.00	
1,2,3-Trichlorobenzene	ND	1.6	0.72	1.00	
1,2,4-Trichlorobenzene	ND	1.6	0.24	1.00	
1,1,1-Trichloroethane	ND	0.78	0.18	1.00	
1,1,2-Trichloroethane	ND	0.78	0.28	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	7.8	0.28	1.00	
Trichloroethene	ND	1.6	0.24	1.00	
Trichlorofluoromethane	ND	7.8	0.29	1.00	
1,2,3-Trichloropropane	ND	1.6	0.65	1.00	
1,2,4-Trimethylbenzene	ND	1.6	0.46	1.00	
1,3,5-Trimethylbenzene	ND	1.6	0.43	1.00	
Vinyl Acetate	ND	7.8	3.7	1.00	
Vinyl Chloride	ND	0.78	0.39	1.00	
p/m-Xylene	ND	1.6	0.21	1.00	
o-Xylene	ND	0.78	0.44	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.23	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	103	79-133	
1,2-Dichloroethane-d4	121	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-8-42	17-10-0916-7-C	10/12/17 10:05	Solid	GC/MS BB	10/12/17	10/13/17 21:19	171013L020

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	10	41	5.1	1.00	J
Benzene	0.33	0.82	0.11	1.00	J
Bromobenzene	ND	0.82	0.17	1.00	
Bromochloromethane	ND	1.6	0.57	1.00	
Bromodichloromethane	ND	0.82	0.19	1.00	
Bromoform	ND	4.1	0.65	1.00	
Bromomethane	ND	16	7.7	1.00	
2-Butanone	ND	16	3.1	1.00	
n-Butylbenzene	ND	0.82	0.13	1.00	
sec-Butylbenzene	ND	0.82	0.47	1.00	
tert-Butylbenzene	ND	0.82	0.12	1.00	
Carbon Disulfide	ND	8.2	0.25	1.00	
Carbon Tetrachloride	ND	0.82	0.23	1.00	
Chlorobenzene	ND	0.82	0.18	1.00	
Chloroethane	ND	1.6	1.2	1.00	
Chloroform	ND	0.82	0.20	1.00	
Chloromethane	ND	16	0.25	1.00	
2-Chlorotoluene	ND	0.82	0.19	1.00	
4-Chlorotoluene	ND	0.82	0.17	1.00	
Dibromochloromethane	ND	1.6	0.47	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.1	1.4	1.00	
1,2-Dibromoethane	ND	0.82	0.21	1.00	
Dibromomethane	ND	0.82	0.64	1.00	
1,2-Dichlorobenzene	ND	0.82	0.19	1.00	
1,3-Dichlorobenzene	ND	0.82	0.14	1.00	
1,4-Dichlorobenzene	ND	0.82	0.18	1.00	
Dichlorodifluoromethane	ND	1.6	0.36	1.00	
1,1-Dichloroethane	ND	0.82	0.17	1.00	
1,2-Dichloroethane	ND	0.82	0.26	1.00	
1,1-Dichloroethene	ND	0.82	0.28	1.00	
c-1,2-Dichloroethene	ND	0.82	0.23	1.00	
t-1,2-Dichloroethene	ND	0.82	0.42	1.00	
1,2-Dichloropropane	ND	0.82	0.36	1.00	
1,3-Dichloropropane	ND	0.82	0.21	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.1	0.27	1.00	
1,1-Dichloropropene	ND	1.6	0.27	1.00	
c-1,3-Dichloropropene	ND	0.82	0.21	1.00	
t-1,3-Dichloropropene	ND	1.6	0.50	1.00	
Ethylbenzene	ND	0.82	0.12	1.00	
2-Hexanone	ND	16	1.4	1.00	
Isopropylbenzene	ND	0.82	0.45	1.00	
p-Isopropyltoluene	ND	0.82	0.52	1.00	
Methylene Chloride	ND	8.2	1.1	1.00	
4-Methyl-2-Pentanone	ND	16	3.5	1.00	
Naphthalene	ND	8.2	0.67	1.00	
n-Propylbenzene	ND	1.6	0.41	1.00	
Styrene	ND	0.82	0.50	1.00	
1,1,1,2-Tetrachloroethane	ND	0.82	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	0.28	1.00	
Tetrachloroethene	0.19	0.82	0.17	1.00	J
Toluene	ND	0.82	0.42	1.00	
1,2,3-Trichlorobenzene	ND	1.6	0.75	1.00	
1,2,4-Trichlorobenzene	ND	1.6	0.25	1.00	
1,1,1-Trichloroethane	ND	0.82	0.18	1.00	
1,1,2-Trichloroethane	ND	0.82	0.29	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.2	0.29	1.00	
Trichloroethene	ND	1.6	0.25	1.00	
Trichlorofluoromethane	ND	8.2	0.31	1.00	
1,2,3-Trichloropropane	ND	1.6	0.68	1.00	
1,2,4-Trimethylbenzene	ND	1.6	0.48	1.00	
1,3,5-Trimethylbenzene	ND	1.6	0.45	1.00	
Vinyl Acetate	ND	8.2	3.9	1.00	
Vinyl Chloride	ND	0.82	0.41	1.00	
p/m-Xylene	ND	1.6	0.22	1.00	
o-Xylene	ND	0.82	0.46	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.24	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	100	80-120	
Dibromofluoromethane	108	79-133	
1,2-Dichloroethane-d4	123	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-8-59	17-10-0916-8-E	10/12/17 10:40	Solid	GC/MS BB	10/12/17	10/13/17 22:45	171013L021

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.
- The reporting limits are elevated due to high levels of non-target compounds.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2200	270	50.0	
Benzene	ND	44	5.7	50.0	
Bromobenzene	ND	44	9.2	50.0	
Bromochloromethane	ND	88	30	50.0	
Bromodichloromethane	ND	44	10	50.0	
Bromoform	ND	220	35	50.0	
Bromomethane	ND	880	410	50.0	
2-Butanone	ND	880	170	50.0	
n-Butylbenzene	ND	44	6.9	50.0	
sec-Butylbenzene	ND	44	25	50.0	
tert-Butylbenzene	ND	44	6.6	50.0	
Carbon Disulfide	ND	440	13	50.0	
Carbon Tetrachloride	ND	44	12	50.0	
Chlorobenzene	ND	44	9.9	50.0	
Chloroethane	ND	88	66	50.0	
Chloroform	ND	44	11	50.0	
Chloromethane	ND	880	13	50.0	
2-Chlorotoluene	ND	44	10	50.0	
4-Chlorotoluene	ND	44	9.4	50.0	
Dibromochloromethane	ND	88	25	50.0	
1,2-Dibromo-3-Chloropropane	ND	220	77	50.0	
1,2-Dibromoethane	ND	44	11	50.0	
Dibromomethane	ND	44	34	50.0	
1,2-Dichlorobenzene	ND	44	10	50.0	
1,3-Dichlorobenzene	ND	44	7.8	50.0	
1,4-Dichlorobenzene	ND	44	9.8	50.0	
Dichlorodifluoromethane	ND	88	20	50.0	
1,1-Dichloroethane	ND	44	9.3	50.0	
1,2-Dichloroethane	ND	44	14	50.0	
1,1-Dichloroethene	ND	44	15	50.0	
c-1,2-Dichloroethene	ND	44	12	50.0	
t-1,2-Dichloroethene	ND	44	22	50.0	
1,2-Dichloropropane	ND	44	19	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
1,3-Dichloropropane	ND	44	11	50.0	
2,2-Dichloropropane	ND	220	15	50.0	
1,1-Dichloropropene	ND	88	14	50.0	
c-1,3-Dichloropropene	ND	44	11	50.0	
t-1,3-Dichloropropene	ND	88	27	50.0	
Ethylbenzene	ND	44	6.7	50.0	
2-Hexanone	ND	880	78	50.0	
Isopropylbenzene	ND	44	24	50.0	
p-Isopropyltoluene	ND	44	28	50.0	
Methylene Chloride	ND	440	59	50.0	
4-Methyl-2-Pentanone	ND	880	190	50.0	
Naphthalene	ND	440	36	50.0	
n-Propylbenzene	ND	88	22	50.0	
Styrene	ND	44	27	50.0	
1,1,1,2-Tetrachloroethane	ND	44	11	50.0	
1,1,2,2-Tetrachloroethane	ND	88	15	50.0	
Tetrachloroethene	ND	44	9.2	50.0	
Toluene	ND	44	23	50.0	
1,2,3-Trichlorobenzene	ND	88	40	50.0	
1,2,4-Trichlorobenzene	ND	88	14	50.0	
1,1,1-Trichloroethane	ND	44	9.9	50.0	
1,1,2-Trichloroethane	ND	44	16	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	440	15	50.0	
Trichloroethene	ND	88	13	50.0	
Trichlorofluoromethane	ND	440	17	50.0	
1,2,3-Trichloropropane	ND	88	37	50.0	
1,2,4-Trimethylbenzene	ND	88	26	50.0	
1,3,5-Trimethylbenzene	ND	88	24	50.0	
Vinyl Acetate	ND	440	210	50.0	
Vinyl Chloride	ND	44	22	50.0	
p/m-Xylene	ND	88	12	50.0	
o-Xylene	ND	44	24	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	88	13	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	99	79-133	
1,2-Dichloroethane-d4	105	71-155	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-8-81	17-10-0916-9-E	10/12/17 11:45	Solid	GC/MS BB	10/12/17	10/13/17 23:14	171013L021

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	2200	280	50.0	
Benzene	ND	44	5.8	50.0	
Bromobenzene	ND	44	9.3	50.0	
Bromochloromethane	ND	89	31	50.0	
Bromodichloromethane	ND	44	10	50.0	
Bromoform	ND	220	35	50.0	
Bromomethane	ND	890	420	50.0	
2-Butanone	ND	890	170	50.0	
n-Butylbenzene	ND	44	6.9	50.0	
sec-Butylbenzene	ND	44	26	50.0	
tert-Butylbenzene	ND	44	6.7	50.0	
Carbon Disulfide	ND	440	14	50.0	
Carbon Tetrachloride	ND	44	13	50.0	
Chlorobenzene	ND	44	9.9	50.0	
Chloroethane	ND	89	66	50.0	
Chloroform	ND	44	11	50.0	
Chloromethane	ND	890	13	50.0	
2-Chlorotoluene	ND	44	10	50.0	
4-Chlorotoluene	ND	44	9.4	50.0	
Dibromochloromethane	ND	89	25	50.0	
1,2-Dibromo-3-Chloropropane	ND	220	77	50.0	
1,2-Dibromoethane	ND	44	11	50.0	
Dibromomethane	ND	44	34	50.0	
1,2-Dichlorobenzene	ND	44	10	50.0	
1,3-Dichlorobenzene	ND	44	7.8	50.0	
1,4-Dichlorobenzene	ND	44	9.8	50.0	
Dichlorodifluoromethane	ND	89	20	50.0	
1,1-Dichloroethane	ND	44	9.4	50.0	
1,2-Dichloroethane	ND	44	14	50.0	
1,1-Dichloroethene	ND	44	15	50.0	
c-1,2-Dichloroethene	ND	44	12	50.0	
t-1,2-Dichloroethene	ND	44	22	50.0	
1,2-Dichloropropane	ND	44	19	50.0	
1,3-Dichloropropane	ND	44	11	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	220	15	50.0	
1,1-Dichloropropene	ND	89	15	50.0	
c-1,3-Dichloropropene	ND	44	11	50.0	
t-1,3-Dichloropropene	ND	89	27	50.0	
Ethylbenzene	ND	44	6.7	50.0	
2-Hexanone	ND	890	78	50.0	
Isopropylbenzene	ND	44	24	50.0	
p-Isopropyltoluene	ND	44	28	50.0	
Methylene Chloride	ND	440	59	50.0	
4-Methyl-2-Pentanone	ND	890	190	50.0	
Naphthalene	ND	440	36	50.0	
n-Propylbenzene	ND	89	22	50.0	
Styrene	ND	44	27	50.0	
1,1,1,2-Tetrachloroethane	ND	44	11	50.0	
1,1,2,2-Tetrachloroethane	ND	89	15	50.0	
Tetrachloroethene	120	44	9.3	50.0	
Toluene	ND	44	23	50.0	
1,2,3-Trichlorobenzene	ND	89	40	50.0	
1,2,4-Trichlorobenzene	ND	89	14	50.0	
1,1,1-Trichloroethane	ND	44	10	50.0	
1,1,2-Trichloroethane	ND	44	16	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	440	16	50.0	
Trichloroethene	79	89	13	50.0	J
Trichlorofluoromethane	ND	440	17	50.0	
1,2,3-Trichloropropane	ND	89	37	50.0	
1,2,4-Trimethylbenzene	ND	89	26	50.0	
1,3,5-Trimethylbenzene	ND	89	24	50.0	
Vinyl Acetate	ND	440	210	50.0	
Vinyl Chloride	ND	44	22	50.0	
p/m-Xylene	ND	89	12	50.0	
o-Xylene	ND	44	25	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	89	13	50.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	99	79-133	
1,2-Dichloroethane-d4	103	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-312-860	N/A	Solid	GC/MS BB	10/13/17	10/13/17 17:12	171013L020

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1.00	
Benzene	ND	1.0	0.13	1.00	
Bromobenzene	ND	1.0	0.21	1.00	
Bromochloromethane	ND	2.0	0.69	1.00	
Bromodichloromethane	ND	1.0	0.23	1.00	
Bromoform	ND	5.0	0.79	1.00	
Bromomethane	ND	20	9.4	1.00	
2-Butanone	ND	20	3.8	1.00	
n-Butylbenzene	ND	1.0	0.16	1.00	
sec-Butylbenzene	ND	1.0	0.58	1.00	
tert-Butylbenzene	ND	1.0	0.15	1.00	
Carbon Disulfide	ND	10	0.31	1.00	
Carbon Tetrachloride	ND	1.0	0.28	1.00	
Chlorobenzene	ND	1.0	0.22	1.00	
Chloroethane	ND	2.0	1.5	1.00	
Chloroform	ND	1.0	0.24	1.00	
Chloromethane	ND	20	0.30	1.00	
2-Chlorotoluene	ND	1.0	0.23	1.00	
4-Chlorotoluene	ND	1.0	0.21	1.00	
Dibromochloromethane	ND	2.0	0.57	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1.00	
1,2-Dibromoethane	ND	1.0	0.26	1.00	
Dibromomethane	ND	1.0	0.77	1.00	
1,2-Dichlorobenzene	ND	1.0	0.23	1.00	
1,3-Dichlorobenzene	ND	1.0	0.18	1.00	
1,4-Dichlorobenzene	ND	1.0	0.22	1.00	
Dichlorodifluoromethane	ND	2.0	0.44	1.00	
1,1-Dichloroethane	ND	1.0	0.21	1.00	
1,2-Dichloroethane	ND	1.0	0.31	1.00	
1,1-Dichloroethene	ND	1.0	0.35	1.00	
c-1,2-Dichloroethene	ND	1.0	0.28	1.00	
t-1,2-Dichloroethene	ND	1.0	0.51	1.00	
1,2-Dichloropropane	ND	1.0	0.44	1.00	
1,3-Dichloropropane	ND	1.0	0.25	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	ND	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	107	79-133	
1,2-Dichloroethane-d4	109	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-312-859	N/A	Solid	GC/MS BB	10/13/17	10/13/17 17:41	171013L021

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	5000	620	50.0	
Benzene	ND	100	13	50.0	
Bromobenzene	ND	100	21	50.0	
Bromochloromethane	ND	200	69	50.0	
Bromodichloromethane	ND	100	23	50.0	
Bromoform	ND	500	79	50.0	
Bromomethane	ND	2000	940	50.0	
2-Butanone	ND	2000	380	50.0	
n-Butylbenzene	ND	100	16	50.0	
sec-Butylbenzene	ND	100	58	50.0	
tert-Butylbenzene	ND	100	15	50.0	
Carbon Disulfide	ND	1000	31	50.0	
Carbon Tetrachloride	ND	100	28	50.0	
Chlorobenzene	ND	100	22	50.0	
Chloroethane	ND	200	150	50.0	
Chloroform	ND	100	24	50.0	
Chloromethane	34	2000	30	50.0	J
2-Chlorotoluene	ND	100	23	50.0	
4-Chlorotoluene	ND	100	21	50.0	
Dibromochloromethane	ND	200	57	50.0	
1,2-Dibromo-3-Chloropropane	ND	500	170	50.0	
1,2-Dibromoethane	ND	100	26	50.0	
Dibromomethane	ND	100	77	50.0	
1,2-Dichlorobenzene	ND	100	23	50.0	
1,3-Dichlorobenzene	ND	100	18	50.0	
1,4-Dichlorobenzene	ND	100	22	50.0	
Dichlorodifluoromethane	ND	200	44	50.0	
1,1-Dichloroethane	ND	100	21	50.0	
1,2-Dichloroethane	ND	100	31	50.0	
1,1-Dichloroethene	ND	100	35	50.0	
c-1,2-Dichloroethene	ND	100	28	50.0	
t-1,2-Dichloroethene	ND	100	51	50.0	
1,2-Dichloropropane	ND	100	44	50.0	
1,3-Dichloropropane	ND	100	25	50.0	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	500	33	50.0	
1,1-Dichloropropene	ND	200	33	50.0	
c-1,3-Dichloropropene	ND	100	25	50.0	
t-1,3-Dichloropropene	ND	200	61	50.0	
Ethylbenzene	ND	100	15	50.0	
2-Hexanone	ND	2000	180	50.0	
Isopropylbenzene	ND	100	55	50.0	
p-Isopropyltoluene	ND	100	63	50.0	
Methylene Chloride	ND	1000	130	50.0	
4-Methyl-2-Pentanone	ND	2000	430	50.0	
Naphthalene	ND	1000	81	50.0	
n-Propylbenzene	ND	200	50	50.0	
Styrene	ND	100	60	50.0	
1,1,1,2-Tetrachloroethane	ND	100	24	50.0	
1,1,2,2-Tetrachloroethane	ND	200	35	50.0	
Tetrachloroethene	ND	100	21	50.0	
Toluene	ND	100	52	50.0	
1,2,3-Trichlorobenzene	ND	200	91	50.0	
1,2,4-Trichlorobenzene	ND	200	31	50.0	
1,1,1-Trichloroethane	ND	100	23	50.0	
1,1,2-Trichloroethane	ND	100	35	50.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	35	50.0	
Trichloroethene	ND	200	30	50.0	
Trichlorofluoromethane	ND	1000	38	50.0	
1,2,3-Trichloropropane	ND	200	83	50.0	
1,2,4-Trimethylbenzene	ND	200	59	50.0	
1,3,5-Trimethylbenzene	ND	200	55	50.0	
Vinyl Acetate	ND	1000	470	50.0	
Vinyl Chloride	ND	100	50	50.0	
p/m-Xylene	ND	200	27	50.0	
o-Xylene	ND	100	56	50.0	
Methyl-t-Butyl Ether (MTBE)	ND	200	30	50.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
1,4-Bromofluorobenzene	101	80-120			
Dibromofluoromethane	99	79-133			
1,2-Dichloroethane-d4	102	71-155			
Toluene-d8	99	80-120			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 1 of 4

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-860	LCS	Solid	GC/MS BB	10/13/17	10/13/17 15:33	171013L020
099-14-312-860	LCSD	Solid	GC/MS BB	10/13/17	10/13/17 16:02	171013L020

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	65.71	131	57.49	115	30-150	10-170	13	0-20	
Benzene	50.00	55.54	111	50.33	101	79-120	72-127	10	0-20	
Bromobenzene	50.00	56.48	113	51.58	103	80-120	73-127	9	0-20	
Bromochloromethane	50.00	60.77	122	55.81	112	80-120	73-127	9	0-20	ME
Bromodichloromethane	50.00	59.54	119	54.87	110	73-127	64-136	8	0-20	
Bromoform	50.00	53.97	108	49.33	99	55-133	42-146	9	0-20	
Bromomethane	50.00	49.10	98	42.30	85	36-144	18-162	15	0-20	
2-Butanone	50.00	62.15	124	54.73	109	56-176	36-196	13	0-20	
n-Butylbenzene	50.00	54.27	109	48.69	97	78-126	70-134	11	0-20	
sec-Butylbenzene	50.00	54.67	109	47.78	96	79-127	71-135	13	0-20	
tert-Butylbenzene	50.00	54.96	110	48.88	98	80-128	72-136	12	0-20	
Carbon Disulfide	50.00	59.82	120	53.11	106	53-125	41-137	12	0-20	
Carbon Tetrachloride	50.00	62.23	124	56.59	113	58-142	44-156	9	0-20	
Chlorobenzene	50.00	54.56	109	49.92	100	80-120	73-127	9	0-20	
Chloroethane	50.00	55.34	111	50.03	100	60-120	50-130	10	0-20	
Chloroform	50.00	58.88	118	52.28	105	80-120	73-127	12	0-20	
Chloromethane	50.00	53.28	107	49.51	99	50-122	38-134	7	0-20	
2-Chlorotoluene	50.00	56.14	112	50.79	102	80-125	72-132	10	0-20	
4-Chlorotoluene	50.00	54.38	109	49.34	99	80-120	73-127	10	0-20	
Dibromochloromethane	50.00	60.84	122	55.39	111	70-130	60-140	9	0-20	
1,2-Dibromo-3-Chloropropane	50.00	62.07	124	58.96	118	54-132	41-145	5	0-20	
1,2-Dibromoethane	50.00	60.06	120	54.52	109	80-120	73-127	10	0-20	
Dibromomethane	50.00	56.62	113	51.70	103	80-122	73-129	9	0-20	
1,2-Dichlorobenzene	50.00	54.42	109	49.73	99	80-120	73-127	9	0-20	
1,3-Dichlorobenzene	50.00	54.27	109	49.02	98	80-120	73-127	10	0-20	
1,4-Dichlorobenzene	50.00	54.31	109	48.37	97	80-120	73-127	12	0-20	
Dichlorodifluoromethane	50.00	56.58	113	49.99	100	32-158	11-179	12	0-20	
1,1-Dichloroethane	50.00	59.09	118	52.78	106	74-120	66-128	11	0-20	
1,2-Dichloroethane	50.00	56.88	114	51.94	104	79-121	72-128	9	0-20	
1,1-Dichloroethene	50.00	57.02	114	50.84	102	71-125	62-134	11	0-20	
c-1,2-Dichloroethene	50.00	60.78	122	52.99	106	80-123	73-130	14	0-20	
t-1,2-Dichloroethene	50.00	60.08	120	52.29	105	80-120	73-127	14	0-20	
1,2-Dichloropropane	50.00	59.06	118	53.49	107	77-120	70-127	10	0-20	
1,3-Dichloropropane	50.00	57.91	116	52.50	105	80-120	73-127	10	0-20	
2,2-Dichloropropane	50.00	59.90	120	52.37	105	58-142	44-156	13	0-20	
1,1-Dichloropropene	50.00	59.34	119	52.00	104	69-120	60-128	13	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 2 of 4

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	60.44	121	55.13	110	74-128	65-137	9	0-20	ME
t-1,3-Dichloropropene	50.00	64.27	129	59.15	118	66-120	57-129	8	0-20	
Ethylbenzene	50.00	54.53	109	49.81	100	80-120	73-127	9	0-20	
2-Hexanone	50.00	60.26	121	54.61	109	67-151	53-165	10	0-20	
Isopropylbenzene	50.00	54.50	109	48.48	97	80-129	72-137	12	0-20	
p-Isopropyltoluene	50.00	55.30	111	48.48	97	80-122	73-129	13	0-20	
Methylene Chloride	50.00	59.84	120	53.83	108	72-120	64-128	11	0-20	
4-Methyl-2-Pentanone	50.00	60.58	121	56.04	112	72-126	63-135	8	0-20	
Naphthalene	50.00	57.06	114	52.39	105	64-124	54-134	9	0-20	
n-Propylbenzene	50.00	55.38	111	49.53	99	80-122	73-129	11	0-20	
Styrene	50.00	56.50	113	51.70	103	80-123	73-130	9	0-20	ME
1,1,1,2-Tetrachloroethane	50.00	63.06	126	57.27	115	73-133	63-143	10	0-20	
1,1,2,2-Tetrachloroethane	50.00	58.73	117	51.94	104	77-120	70-127	12	0-20	
Tetrachloroethene	50.00	53.18	106	46.19	92	75-123	67-131	14	0-20	
Toluene	50.00	53.65	107	48.43	97	80-120	73-127	10	0-20	
1,2,3-Trichlorobenzene	50.00	53.40	107	49.03	98	73-127	64-136	9	0-20	
1,2,4-Trichlorobenzene	50.00	56.25	113	50.57	101	74-128	65-137	11	0-20	
1,1,1-Trichloroethane	50.00	59.19	118	51.48	103	71-131	61-141	14	0-20	
1,1,2-Trichloroethane	50.00	60.19	120	54.10	108	80-120	73-127	11	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	57.34	115	50.76	102	77-125	69-133	12	0-20	
Trichloroethene	50.00	56.92	114	50.58	101	80-120	73-127	12	0-20	ME
Trichlorofluoromethane	50.00	60.41	121	53.22	106	70-136	59-147	13	0-20	
1,2,3-Trichloropropane	50.00	61.76	124	56.34	113	60-120	50-130	9	0-20	
1,2,4-Trimethylbenzene	50.00	53.41	107	47.60	95	75-123	67-131	12	0-20	
1,3,5-Trimethylbenzene	50.00	55.36	111	49.14	98	80-123	73-130	12	0-20	
Vinyl Acetate	50.00	54.90	110	50.20	100	51-159	33-177	9	0-20	
Vinyl Chloride	50.00	56.46	113	51.01	102	68-120	59-129	10	0-20	
p/m-Xylene	100.0	105.7	106	95.22	95	80-122	73-129	10	0-20	
o-Xylene	50.00	54.53	109	49.16	98	79-127	71-135	10	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	60.21	120	53.93	108	64-124	54-134	11	0-20	

Total number of LCS compounds: 66

Total number of ME compounds: 3

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 3 of 4

Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-14-312-859	LCS	Solid		GC/MS BB	10/13/17	10/13/17 15:33	171013L021			
099-14-312-859	LCSD	Solid		GC/MS BB	10/13/17	10/13/17 16:02	171013L021			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	65.71	131	57.49	115	30-150	10-170	13	0-20	
Benzene	50.00	55.54	111	50.33	101	79-120	72-127	10	0-20	
Bromobenzene	50.00	56.48	113	51.58	103	80-120	73-127	9	0-20	
Bromochloromethane	50.00	60.77	122	55.81	112	80-120	73-127	9	0-20	ME
Bromodichloromethane	50.00	59.54	119	54.87	110	73-127	64-136	8	0-20	
Bromoform	50.00	53.97	108	49.33	99	55-133	42-146	9	0-20	
Bromomethane	50.00	49.10	98	42.30	85	36-144	18-162	15	0-20	
2-Butanone	50.00	62.15	124	54.73	109	56-176	36-196	13	0-20	
n-Butylbenzene	50.00	54.27	109	48.69	97	78-126	70-134	11	0-20	
sec-Butylbenzene	50.00	54.67	109	47.78	96	79-127	71-135	13	0-20	
tert-Butylbenzene	50.00	54.96	110	48.88	98	80-128	72-136	12	0-20	
Carbon Disulfide	50.00	59.82	120	53.11	106	53-125	41-137	12	0-20	
Carbon Tetrachloride	50.00	62.23	124	56.59	113	58-142	44-156	9	0-20	
Chlorobenzene	50.00	54.56	109	49.92	100	80-120	73-127	9	0-20	
Chloroethane	50.00	55.34	111	50.03	100	60-120	50-130	10	0-20	
Chloroform	50.00	58.88	118	52.28	105	80-120	73-127	12	0-20	
Chloromethane	50.00	53.28	107	49.51	99	50-122	38-134	7	0-20	
2-Chlorotoluene	50.00	56.14	112	50.79	102	80-125	72-132	10	0-20	
4-Chlorotoluene	50.00	54.38	109	49.34	99	80-120	73-127	10	0-20	
Dibromochloromethane	50.00	60.84	122	55.39	111	70-130	60-140	9	0-20	
1,2-Dibromo-3-Chloropropane	50.00	62.07	124	58.96	118	54-132	41-145	5	0-20	
1,2-Dibromoethane	50.00	60.06	120	54.52	109	80-120	73-127	10	0-20	
Dibromomethane	50.00	56.62	113	51.70	103	80-122	73-129	9	0-20	
1,2-Dichlorobenzene	50.00	54.42	109	49.73	99	80-120	73-127	9	0-20	
1,3-Dichlorobenzene	50.00	54.27	109	49.02	98	80-120	73-127	10	0-20	
1,4-Dichlorobenzene	50.00	54.31	109	48.37	97	80-120	73-127	12	0-20	
Dichlorodifluoromethane	50.00	56.58	113	49.99	100	32-158	11-179	12	0-20	
1,1-Dichloroethane	50.00	59.09	118	52.78	106	74-120	66-128	11	0-20	
1,2-Dichloroethane	50.00	56.88	114	51.94	104	79-121	72-128	9	0-20	
1,1-Dichloroethene	50.00	57.02	114	50.84	102	71-125	62-134	11	0-20	
c-1,2-Dichloroethene	50.00	60.78	122	52.99	106	80-123	73-130	14	0-20	
t-1,2-Dichloroethene	50.00	60.08	120	52.29	105	80-120	73-127	14	0-20	
1,2-Dichloropropane	50.00	59.06	118	53.49	107	77-120	70-127	10	0-20	
1,3-Dichloropropane	50.00	57.91	116	52.50	105	80-120	73-127	10	0-20	
2,2-Dichloropropane	50.00	59.90	120	52.37	105	58-142	44-156	13	0-20	
1,1-Dichloropropene	50.00	59.34	119	52.00	104	69-120	60-128	13	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/12/17
Work Order: 17-10-0916
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 4 of 4

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	60.44	121	55.13	110	74-128	65-137	9	0-20	ME
t-1,3-Dichloropropene	50.00	64.27	129	59.15	118	66-120	57-129	8	0-20	
Ethylbenzene	50.00	54.53	109	49.81	100	80-120	73-127	9	0-20	
2-Hexanone	50.00	60.26	121	54.61	109	67-151	53-165	10	0-20	ME
Isopropylbenzene	50.00	54.50	109	48.48	97	80-129	72-137	12	0-20	
p-Isopropyltoluene	50.00	55.30	111	48.48	97	80-122	73-129	13	0-20	
Methylene Chloride	50.00	59.84	120	53.83	108	72-120	64-128	11	0-20	ME
4-Methyl-2-Pentanone	50.00	60.58	121	56.04	112	72-126	63-135	8	0-20	
Naphthalene	50.00	57.06	114	52.39	105	64-124	54-134	9	0-20	
n-Propylbenzene	50.00	55.38	111	49.53	99	80-122	73-129	11	0-20	ME
Styrene	50.00	56.50	113	51.70	103	80-123	73-130	9	0-20	
1,1,1,2-Tetrachloroethane	50.00	63.06	126	57.27	115	73-133	63-143	10	0-20	
1,1,2,2-Tetrachloroethane	50.00	58.73	117	51.94	104	77-120	70-127	12	0-20	ME
Tetrachloroethene	50.00	53.18	106	46.19	92	75-123	67-131	14	0-20	
Toluene	50.00	53.65	107	48.43	97	80-120	73-127	10	0-20	
1,2,3-Trichlorobenzene	50.00	53.40	107	49.03	98	73-127	64-136	9	0-20	ME
1,2,4-Trichlorobenzene	50.00	56.25	113	50.57	101	74-128	65-137	11	0-20	
1,1,1-Trichloroethane	50.00	59.19	118	51.48	103	71-131	61-141	14	0-20	
1,1,2-Trichloroethane	50.00	60.19	120	54.10	108	80-120	73-127	11	0-20	ME
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	57.34	115	50.76	102	77-125	69-133	12	0-20	
Trichloroethene	50.00	56.92	114	50.58	101	80-120	73-127	12	0-20	
Trichlorofluoromethane	50.00	60.41	121	53.22	106	70-136	59-147	13	0-20	ME
1,2,3-Trichloropropane	50.00	61.76	124	56.34	113	60-120	50-130	9	0-20	
1,2,4-Trimethylbenzene	50.00	53.41	107	47.60	95	75-123	67-131	12	0-20	
1,3,5-Trimethylbenzene	50.00	55.36	111	49.14	98	80-123	73-130	12	0-20	ME
Vinyl Acetate	50.00	54.90	110	50.20	100	51-159	33-177	9	0-20	
Vinyl Chloride	50.00	56.46	113	51.01	102	68-120	59-129	10	0-20	
p/m-Xylene	100.0	105.7	106	95.22	95	80-122	73-129	10	0-20	ME
o-Xylene	50.00	54.53	109	49.16	98	79-127	71-135	10	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	60.21	120	53.93	108	64-124	54-134	11	0-20	

Total number of LCS compounds: 66

Total number of ME compounds: 3

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Sample Analysis Summary Report

Work Order: 17-10-0916

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8260B	EPA 5035	1120	GC/MS BB	2


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Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 17-10-0916

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1CLIENT: GeosyntecDATE: 10/12/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.4°C); Temperature (w/o CF): 2.2 °C (w/ CF): 1.8 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 1091

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 1091Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 1140

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/ASamples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace..... ☐ Yes ☐ No ☒ N/A☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB ☐ 125PB_{znna} (pH__9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH__2) ☐ 250PB ☐ 250PB_n (pH__2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH__2) ☐ 500PB☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGBs (pH__2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PB_{na} (pH__12) ☐ _____ ☐ _____ ☐ _____Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® (____) ☒ TerraCores® (3) ☒ 2 oz PT ☐ _____ ☐ _____Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (____): ☐ _____ ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1140s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, znna = Zn (CH₃CO₂)₂ + NaOHReviewed by: 728



Calscience

Supplemental Report 1

The original report has been revised/corrected.



WORK ORDER NUMBER: 17-10-1049

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Geosyntec Consultants

Client Project Name: 777 N. Front Street / HR1305D-01

Attention: Goodwin Wharton
2100 Main Street
Suite 150
Huntington Beach, CA 92648-2460

Approved for release on 11/03/2017 by:
Stephen Nowak
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 17-10-1049

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Work Order Narrative

Work Order: 17-10-1049

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 10/13/17. They were assigned to Work Order 17-10-1049.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Calscience

Sample Summary

Client:	Geosyntec Consultants	Work Order:	17-10-1049
	2100 Main Street, Suite 150	Project Name:	777 N. Front Street / HR1305D-01
	Huntington Beach, CA 92648-2460	PO Number:	
		Date/Time Received:	10/13/17 17:50
		Number of Containers:	34

Attn: Goodwin Wharton

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
NP-7-22	17-10-1049-1	10/12/17 16:15	4	Solid
NP-7-34	17-10-1049-2	10/12/17 16:35	4	Solid
NP-7-49	17-10-1049-3	10/12/17 17:05	4	Solid
NP-6-16	17-10-1049-4	10/13/17 08:20	4	Solid
NP-6-26	17-10-1049-5	10/13/17 08:45	4	Solid
NP-6-40	17-10-1049-6	10/13/17 09:05	4	Solid
NP-6-55	17-10-1049-7	10/13/17 09:55	4	Solid
NP-6-88	17-10-1049-8	10/13/17 10:30	4	Solid
EB-NP-6	17-10-1049-9	10/13/17 12:05	2	Aqueous


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Detections Summary

Client: Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Work Order: 17-10-1049
Project Name: 777 N. Front Street / HR1305D-01
Received: 10/13/17

Attn: Goodwin Wharton

Page 1 of 1

Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
NP-7-22 (17-10-1049-1)						
Acetone	23	J	5.5*	ug/kg	EPA 8260B	EPA 5035
NP-7-34 (17-10-1049-2)						
Acetone	21	J	6.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.32	J	0.13*	ug/kg	EPA 8260B	EPA 5035
NP-7-49 (17-10-1049-3)						
Acetone	16	J	5.4*	ug/kg	EPA 8260B	EPA 5035
NP-6-16 (17-10-1049-4)						
Acetone	22	J	5.1*	ug/kg	EPA 8260B	EPA 5035
NP-6-26 (17-10-1049-5)						
Acetone	8.2	J	5.6*	ug/kg	EPA 8260B	EPA 5035
NP-6-40 (17-10-1049-6)						
Acetone	15	J	5.6*	ug/kg	EPA 8260B	EPA 5035
NP-6-55 (17-10-1049-7)						
Acetone	11	J	6.2*	ug/kg	EPA 8260B	EPA 5035
NP-6-88 (17-10-1049-8)						
Acetone	56	J	7.1*	ug/kg	EPA 8260B	EPA 5035
Benzene	0.16	J	0.15*	ug/kg	EPA 8260B	EPA 5035
2-Butanone	14	J	4.3*	ug/kg	EPA 8260B	EPA 5035

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB-NP-6	17-10-1049-9-A	10/13/17 12:05	Aqueous	GC/MS JJ	10/16/17	10/16/17 16:09	171016L013

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	102	78-120	
Dibromofluoromethane	103	80-126	
1,2-Dichloroethane-d4	107	80-129	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-316-3679	N/A	Aqueous	GC/MS JJ	10/16/17	10/16/17 11:20	171016L013

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1.00	
Benzene	ND	0.50	1.00	
Bromobenzene	ND	1.0	1.00	
Bromochloromethane	ND	1.0	1.00	
Bromodichloromethane	ND	1.0	1.00	
Bromoform	ND	1.0	1.00	
Bromomethane	ND	10	1.00	
2-Butanone	ND	10	1.00	
n-Butylbenzene	ND	1.0	1.00	
sec-Butylbenzene	ND	1.0	1.00	
tert-Butylbenzene	ND	1.0	1.00	
Carbon Disulfide	ND	10	1.00	
Carbon Tetrachloride	ND	0.50	1.00	
Chlorobenzene	ND	1.0	1.00	
Chloroethane	ND	5.0	1.00	
Chloroform	ND	1.0	1.00	
Chloromethane	ND	10	1.00	
2-Chlorotoluene	ND	1.0	1.00	
4-Chlorotoluene	ND	1.0	1.00	
Dibromochloromethane	ND	1.0	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.00	
1,2-Dibromoethane	ND	1.0	1.00	
Dibromomethane	ND	1.0	1.00	
1,2-Dichlorobenzene	ND	1.0	1.00	
1,3-Dichlorobenzene	ND	1.0	1.00	
1,4-Dichlorobenzene	ND	1.0	1.00	
Dichlorodifluoromethane	ND	1.0	1.00	
1,1-Dichloroethane	ND	1.0	1.00	
1,2-Dichloroethane	ND	0.50	1.00	
1,1-Dichloroethene	ND	1.0	1.00	
c-1,2-Dichloroethene	ND	1.0	1.00	
t-1,2-Dichloroethene	ND	1.0	1.00	
1,2-Dichloropropane	ND	1.0	1.00	
1,3-Dichloropropane	ND	1.0	1.00	
2,2-Dichloropropane	ND	1.0	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1.00	
c-1,3-Dichloropropene	ND	0.50	1.00	
t-1,3-Dichloropropene	ND	0.50	1.00	
Ethylbenzene	ND	1.0	1.00	
2-Hexanone	ND	10	1.00	
Isopropylbenzene	ND	1.0	1.00	
p-Isopropyltoluene	ND	1.0	1.00	
Methylene Chloride	ND	10	1.00	
4-Methyl-2-Pentanone	ND	10	1.00	
Naphthalene	ND	10	1.00	
n-Propylbenzene	ND	1.0	1.00	
Styrene	ND	1.0	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	1.00	
1,1,2,2-Tetrachloroethane	ND	1.0	1.00	
Tetrachloroethene	ND	1.0	1.00	
Toluene	ND	1.0	1.00	
1,2,3-Trichlorobenzene	ND	1.0	1.00	
1,2,4-Trichlorobenzene	ND	1.0	1.00	
1,1,1-Trichloroethane	ND	1.0	1.00	
Hexachloro-1,3-Butadiene	ND	20	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1.00	
1,1,2-Trichloroethane	ND	1.0	1.00	
Trichloroethene	ND	1.0	1.00	
Trichlorofluoromethane	ND	10	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	1.0	1.00	
1,3,5-Trimethylbenzene	ND	1.0	1.00	
Vinyl Acetate	ND	10	1.00	
Vinyl Chloride	ND	0.50	1.00	
p/m-Xylene	ND	1.0	1.00	
o-Xylene	ND	1.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	104	78-120	
Dibromofluoromethane	104	80-126	
1,2-Dichloroethane-d4	107	80-129	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-7-22	17-10-1049-1-C	10/12/17 16:15	Solid	GC/MS BB	10/12/17	10/18/17 01:14	171017L013

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	23	44	5.5	1.00	J
Benzene	ND	0.89	0.12	1.00	
Bromobenzene	ND	0.89	0.19	1.00	
Bromochloromethane	ND	1.8	0.61	1.00	
Bromodichloromethane	ND	0.89	0.21	1.00	
Bromoform	ND	4.4	0.70	1.00	
Bromomethane	ND	18	8.4	1.00	
2-Butanone	ND	18	3.3	1.00	
n-Butylbenzene	ND	0.89	0.14	1.00	
sec-Butylbenzene	ND	0.89	0.51	1.00	
tert-Butylbenzene	ND	0.89	0.13	1.00	
Carbon Disulfide	ND	8.9	0.27	1.00	
Carbon Tetrachloride	ND	0.89	0.25	1.00	
Chlorobenzene	ND	0.89	0.20	1.00	
Chloroethane	ND	1.8	1.3	1.00	
Chloroform	ND	0.89	0.21	1.00	
Chloromethane	ND	18	0.27	1.00	
2-Chlorotoluene	ND	0.89	0.21	1.00	
4-Chlorotoluene	ND	0.89	0.19	1.00	
Dibromochloromethane	ND	1.8	0.51	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.4	1.5	1.00	
1,2-Dibromoethane	ND	0.89	0.23	1.00	
Dibromomethane	ND	0.89	0.69	1.00	
1,2-Dichlorobenzene	ND	0.89	0.20	1.00	
1,3-Dichlorobenzene	ND	0.89	0.16	1.00	
1,4-Dichlorobenzene	ND	0.89	0.20	1.00	
Dichlorodifluoromethane	ND	1.8	0.39	1.00	
1,1-Dichloroethane	ND	0.89	0.19	1.00	
1,2-Dichloroethane	ND	0.89	0.28	1.00	
1,1-Dichloroethene	ND	0.89	0.31	1.00	
c-1,2-Dichloroethene	ND	0.89	0.25	1.00	
t-1,2-Dichloroethene	ND	0.89	0.45	1.00	
1,2-Dichloropropane	ND	0.89	0.39	1.00	
1,3-Dichloropropane	ND	0.89	0.22	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.4	0.29	1.00	
1,1-Dichloropropene	ND	1.8	0.29	1.00	
c-1,3-Dichloropropene	ND	0.89	0.23	1.00	
t-1,3-Dichloropropene	ND	1.8	0.54	1.00	
Ethylbenzene	ND	0.89	0.13	1.00	
2-Hexanone	ND	18	1.6	1.00	
Isopropylbenzene	ND	0.89	0.48	1.00	
p-Isopropyltoluene	ND	0.89	0.56	1.00	
Methylene Chloride	ND	8.9	1.2	1.00	
4-Methyl-2-Pentanone	ND	18	3.8	1.00	
Naphthalene	ND	8.9	0.72	1.00	
n-Propylbenzene	ND	1.8	0.44	1.00	
Styrene	ND	0.89	0.54	1.00	
1,1,1,2-Tetrachloroethane	ND	0.89	0.21	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	1.00	
Tetrachloroethene	ND	0.89	0.19	1.00	
Toluene	ND	0.89	0.46	1.00	
1,2,3-Trichlorobenzene	ND	1.8	0.81	1.00	
1,2,4-Trichlorobenzene	ND	1.8	0.28	1.00	
1,1,1-Trichloroethane	ND	0.89	0.20	1.00	
1,1,2-Trichloroethane	ND	0.89	0.31	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.9	0.31	1.00	
Trichloroethene	ND	1.8	0.27	1.00	
Trichlorofluoromethane	ND	8.9	0.33	1.00	
1,2,3-Trichloropropane	ND	1.8	0.74	1.00	
1,2,4-Trimethylbenzene	ND	1.8	0.52	1.00	
1,3,5-Trimethylbenzene	ND	1.8	0.49	1.00	
Vinyl Acetate	ND	8.9	4.2	1.00	
Vinyl Chloride	ND	0.89	0.45	1.00	
p/m-Xylene	ND	1.8	0.24	1.00	
o-Xylene	ND	0.89	0.49	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.26	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	128	79-133	
1,2-Dichloroethane-d4	152	71-155	
Toluene-d8	103	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-7-34	17-10-1049-2-C	10/12/17 16:35	Solid	GC/MS BB	10/12/17	10/18/17 01:43	171017L013

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	21	49	6.1	1.00	J
Benzene	0.32	0.97	0.13	1.00	J
Bromobenzene	ND	0.97	0.20	1.00	
Bromochloromethane	ND	1.9	0.67	1.00	
Bromodichloromethane	ND	0.97	0.23	1.00	
Bromoform	ND	4.9	0.77	1.00	
Bromomethane	ND	19	9.2	1.00	
2-Butanone	ND	19	3.7	1.00	
n-Butylbenzene	ND	0.97	0.15	1.00	
sec-Butylbenzene	ND	0.97	0.56	1.00	
tert-Butylbenzene	ND	0.97	0.15	1.00	
Carbon Disulfide	ND	9.7	0.30	1.00	
Carbon Tetrachloride	ND	0.97	0.28	1.00	
Chlorobenzene	ND	0.97	0.22	1.00	
Chloroethane	ND	1.9	1.5	1.00	
Chloroform	ND	0.97	0.23	1.00	
Chloromethane	ND	19	0.30	1.00	
2-Chlorotoluene	ND	0.97	0.23	1.00	
4-Chlorotoluene	ND	0.97	0.21	1.00	
Dibromochloromethane	ND	1.9	0.55	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.9	1.7	1.00	
1,2-Dibromoethane	ND	0.97	0.25	1.00	
Dibromomethane	ND	0.97	0.75	1.00	
1,2-Dichlorobenzene	ND	0.97	0.22	1.00	
1,3-Dichlorobenzene	ND	0.97	0.17	1.00	
1,4-Dichlorobenzene	ND	0.97	0.22	1.00	
Dichlorodifluoromethane	ND	1.9	0.43	1.00	
1,1-Dichloroethane	ND	0.97	0.21	1.00	
1,2-Dichloroethane	ND	0.97	0.31	1.00	
1,1-Dichloroethene	ND	0.97	0.34	1.00	
c-1,2-Dichloroethene	ND	0.97	0.27	1.00	
t-1,2-Dichloroethene	ND	0.97	0.49	1.00	
1,2-Dichloropropane	ND	0.97	0.43	1.00	
1,3-Dichloropropane	ND	0.97	0.25	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.9	0.32	1.00	
1,1-Dichloropropene	ND	1.9	0.32	1.00	
c-1,3-Dichloropropene	ND	0.97	0.25	1.00	
t-1,3-Dichloropropene	ND	1.9	0.59	1.00	
Ethylbenzene	ND	0.97	0.15	1.00	
2-Hexanone	ND	19	1.7	1.00	
Isopropylbenzene	ND	0.97	0.53	1.00	
p-Isopropyltoluene	ND	0.97	0.61	1.00	
Methylene Chloride	ND	9.7	1.3	1.00	
4-Methyl-2-Pentanone	ND	19	4.2	1.00	
Naphthalene	ND	9.7	0.79	1.00	
n-Propylbenzene	ND	1.9	0.49	1.00	
Styrene	ND	0.97	0.59	1.00	
1,1,1,2-Tetrachloroethane	ND	0.97	0.23	1.00	
1,1,2,2-Tetrachloroethane	ND	1.9	0.34	1.00	
Tetrachloroethene	ND	0.97	0.20	1.00	
Toluene	ND	0.97	0.50	1.00	
1,2,3-Trichlorobenzene	ND	1.9	0.89	1.00	
1,2,4-Trichlorobenzene	ND	1.9	0.30	1.00	
1,1,1-Trichloroethane	ND	0.97	0.22	1.00	
1,1,2-Trichloroethane	ND	0.97	0.34	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.7	0.34	1.00	
Trichloroethene	ND	1.9	0.29	1.00	
Trichlorofluoromethane	ND	9.7	0.36	1.00	
1,2,3-Trichloropropane	ND	1.9	0.81	1.00	
1,2,4-Trimethylbenzene	ND	1.9	0.57	1.00	
1,3,5-Trimethylbenzene	ND	1.9	0.53	1.00	
Vinyl Acetate	ND	9.7	4.6	1.00	
Vinyl Chloride	ND	0.97	0.49	1.00	
p/m-Xylene	ND	1.9	0.26	1.00	
o-Xylene	ND	0.97	0.54	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.9	0.29	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	109	79-133	
1,2-Dichloroethane-d4	128	71-155	
Toluene-d8	104	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-7-49	17-10-1049-3-C	10/12/17 17:05	Solid	GC/MS BB	10/12/17	10/18/17 02:12	171017L013

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	16	43	5.4	1.00	J
Benzene	ND	0.86	0.11	1.00	
Bromobenzene	ND	0.86	0.18	1.00	
Bromochloromethane	ND	1.7	0.59	1.00	
Bromodichloromethane	ND	0.86	0.20	1.00	
Bromoform	ND	4.3	0.68	1.00	
Bromomethane	ND	17	8.1	1.00	
2-Butanone	ND	17	3.2	1.00	
n-Butylbenzene	ND	0.86	0.13	1.00	
sec-Butylbenzene	ND	0.86	0.50	1.00	
tert-Butylbenzene	ND	0.86	0.13	1.00	
Carbon Disulfide	ND	8.6	0.26	1.00	
Carbon Tetrachloride	ND	0.86	0.24	1.00	
Chlorobenzene	ND	0.86	0.19	1.00	
Chloroethane	ND	1.7	1.3	1.00	
Chloroform	ND	0.86	0.20	1.00	
Chloromethane	ND	17	0.26	1.00	
2-Chlorotoluene	ND	0.86	0.20	1.00	
4-Chlorotoluene	ND	0.86	0.18	1.00	
Dibromochloromethane	ND	1.7	0.49	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.3	1.5	1.00	
1,2-Dibromoethane	ND	0.86	0.22	1.00	
Dibromomethane	ND	0.86	0.66	1.00	
1,2-Dichlorobenzene	ND	0.86	0.20	1.00	
1,3-Dichlorobenzene	ND	0.86	0.15	1.00	
1,4-Dichlorobenzene	ND	0.86	0.19	1.00	
Dichlorodifluoromethane	ND	1.7	0.38	1.00	
1,1-Dichloroethane	ND	0.86	0.18	1.00	
1,2-Dichloroethane	ND	0.86	0.27	1.00	
1,1-Dichloroethene	ND	0.86	0.30	1.00	
c-1,2-Dichloroethene	ND	0.86	0.24	1.00	
t-1,2-Dichloroethene	ND	0.86	0.43	1.00	
1,2-Dichloropropane	ND	0.86	0.38	1.00	
1,3-Dichloropropane	ND	0.86	0.22	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.3	0.28	1.00	
1,1-Dichloropropene	ND	1.7	0.28	1.00	
c-1,3-Dichloropropene	ND	0.86	0.22	1.00	
t-1,3-Dichloropropene	ND	1.7	0.52	1.00	
Ethylbenzene	ND	0.86	0.13	1.00	
2-Hexanone	ND	17	1.5	1.00	
Isopropylbenzene	ND	0.86	0.47	1.00	
p-Isopropyltoluene	ND	0.86	0.54	1.00	
Methylene Chloride	ND	8.6	1.1	1.00	
4-Methyl-2-Pentanone	ND	17	3.7	1.00	
Naphthalene	ND	8.6	0.70	1.00	
n-Propylbenzene	ND	1.7	0.43	1.00	
Styrene	ND	0.86	0.52	1.00	
1,1,1,2-Tetrachloroethane	ND	0.86	0.21	1.00	
1,1,2,2-Tetrachloroethane	ND	1.7	0.30	1.00	
Tetrachloroethene	ND	0.86	0.18	1.00	
Toluene	ND	0.86	0.44	1.00	
1,2,3-Trichlorobenzene	ND	1.7	0.78	1.00	
1,2,4-Trichlorobenzene	ND	1.7	0.27	1.00	
1,1,1-Trichloroethane	ND	0.86	0.19	1.00	
1,1,2-Trichloroethane	ND	0.86	0.30	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.6	0.30	1.00	
Trichloroethene	ND	1.7	0.26	1.00	
Trichlorofluoromethane	ND	8.6	0.32	1.00	
1,2,3-Trichloropropane	ND	1.7	0.71	1.00	
1,2,4-Trimethylbenzene	ND	1.7	0.50	1.00	
1,3,5-Trimethylbenzene	ND	1.7	0.47	1.00	
Vinyl Acetate	ND	8.6	4.1	1.00	
Vinyl Chloride	ND	0.86	0.43	1.00	
p/m-Xylene	ND	1.7	0.23	1.00	
o-Xylene	ND	0.86	0.48	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.7	0.25	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	102	80-120	
Dibromofluoromethane	119	79-133	
1,2-Dichloroethane-d4	146	71-155	
Toluene-d8	104	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-6-16	17-10-1049-4-D	10/13/17 08:20	Solid	GC/MS BB	10/13/17	10/18/17 23:09	171018L014

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	22	41	5.1	1.00	J
Benzene	ND	0.82	0.11	1.00	
Bromobenzene	ND	0.82	0.17	1.00	
Bromochloromethane	ND	1.6	0.56	1.00	
Bromodichloromethane	ND	0.82	0.19	1.00	
Bromoform	ND	4.1	0.65	1.00	
Bromomethane	ND	16	7.7	1.00	
2-Butanone	ND	16	3.1	1.00	
n-Butylbenzene	ND	0.82	0.13	1.00	
sec-Butylbenzene	ND	0.82	0.47	1.00	
tert-Butylbenzene	ND	0.82	0.12	1.00	
Carbon Disulfide	ND	8.2	0.25	1.00	
Carbon Tetrachloride	ND	0.82	0.23	1.00	
Chlorobenzene	ND	0.82	0.18	1.00	
Chloroethane	ND	1.6	1.2	1.00	
Chloroform	ND	0.82	0.20	1.00	
Chloromethane	ND	16	0.25	1.00	
2-Chlorotoluene	ND	0.82	0.19	1.00	
4-Chlorotoluene	ND	0.82	0.17	1.00	
Dibromochloromethane	ND	1.6	0.47	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.1	1.4	1.00	
1,2-Dibromoethane	ND	0.82	0.21	1.00	
Dibromomethane	ND	0.82	0.63	1.00	
1,2-Dichlorobenzene	ND	0.82	0.19	1.00	
1,3-Dichlorobenzene	ND	0.82	0.14	1.00	
1,4-Dichlorobenzene	ND	0.82	0.18	1.00	
Dichlorodifluoromethane	ND	1.6	0.36	1.00	
1,1-Dichloroethane	ND	0.82	0.17	1.00	
1,2-Dichloroethane	ND	0.82	0.26	1.00	
1,1-Dichloroethene	ND	0.82	0.28	1.00	
c-1,2-Dichloroethene	ND	0.82	0.23	1.00	
t-1,2-Dichloroethene	ND	0.82	0.41	1.00	
1,2-Dichloropropane	ND	0.82	0.36	1.00	
1,3-Dichloropropane	ND	0.82	0.21	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.1	0.27	1.00	
1,1-Dichloropropene	ND	1.6	0.27	1.00	
c-1,3-Dichloropropene	ND	0.82	0.21	1.00	
t-1,3-Dichloropropene	ND	1.6	0.50	1.00	
Ethylbenzene	ND	0.82	0.12	1.00	
2-Hexanone	ND	16	1.4	1.00	
Isopropylbenzene	ND	0.82	0.45	1.00	
p-Isopropyltoluene	ND	0.82	0.52	1.00	
Methylene Chloride	ND	8.2	1.1	1.00	
4-Methyl-2-Pentanone	ND	16	3.5	1.00	
Naphthalene	ND	8.2	0.67	1.00	
n-Propylbenzene	ND	1.6	0.41	1.00	
Styrene	ND	0.82	0.49	1.00	
1,1,1,2-Tetrachloroethane	ND	0.82	0.20	1.00	
1,1,2,2-Tetrachloroethane	ND	1.6	0.28	1.00	
Tetrachloroethene	ND	0.82	0.17	1.00	
Toluene	ND	0.82	0.42	1.00	
1,2,3-Trichlorobenzene	ND	1.6	0.75	1.00	
1,2,4-Trichlorobenzene	ND	1.6	0.25	1.00	
1,1,1-Trichloroethane	ND	0.82	0.18	1.00	
1,1,2-Trichloroethane	ND	0.82	0.29	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	8.2	0.29	1.00	
Trichloroethene	ND	1.6	0.25	1.00	
Trichlorofluoromethane	ND	8.2	0.31	1.00	
1,2,3-Trichloropropane	ND	1.6	0.68	1.00	
1,2,4-Trimethylbenzene	ND	1.6	0.48	1.00	
1,3,5-Trimethylbenzene	ND	1.6	0.45	1.00	
Vinyl Acetate	ND	8.2	3.9	1.00	
Vinyl Chloride	ND	0.82	0.41	1.00	
p/m-Xylene	ND	1.6	0.22	1.00	
o-Xylene	ND	0.82	0.46	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.6	0.24	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	126	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-6-26	17-10-1049-5-C	10/13/17 08:45	Solid	GC/MS BB	10/13/17	10/18/17 03:09	171017L013

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	8.2	45	5.6	1.00	J
Benzene	ND	0.90	0.12	1.00	
Bromobenzene	ND	0.90	0.19	1.00	
Bromochloromethane	ND	1.8	0.62	1.00	
Bromodichloromethane	ND	0.90	0.21	1.00	
Bromoform	ND	4.5	0.72	1.00	
Bromomethane	ND	18	8.5	1.00	
2-Butanone	ND	18	3.4	1.00	
n-Butylbenzene	ND	0.90	0.14	1.00	
sec-Butylbenzene	ND	0.90	0.52	1.00	
tert-Butylbenzene	ND	0.90	0.14	1.00	
Carbon Disulfide	ND	9.0	0.28	1.00	
Carbon Tetrachloride	ND	0.90	0.26	1.00	
Chlorobenzene	ND	0.90	0.20	1.00	
Chloroethane	ND	1.8	1.3	1.00	
Chloroform	ND	0.90	0.22	1.00	
Chloromethane	ND	18	0.27	1.00	
2-Chlorotoluene	ND	0.90	0.21	1.00	
4-Chlorotoluene	ND	0.90	0.19	1.00	
Dibromochloromethane	ND	1.8	0.51	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.6	1.00	
1,2-Dibromoethane	ND	0.90	0.23	1.00	
Dibromomethane	ND	0.90	0.70	1.00	
1,2-Dichlorobenzene	ND	0.90	0.21	1.00	
1,3-Dichlorobenzene	ND	0.90	0.16	1.00	
1,4-Dichlorobenzene	ND	0.90	0.20	1.00	
Dichlorodifluoromethane	ND	1.8	0.40	1.00	
1,1-Dichloroethane	ND	0.90	0.19	1.00	
1,2-Dichloroethane	ND	0.90	0.28	1.00	
1,1-Dichloroethene	ND	0.90	0.31	1.00	
c-1,2-Dichloroethene	ND	0.90	0.25	1.00	
t-1,2-Dichloroethene	ND	0.90	0.46	1.00	
1,2-Dichloropropane	ND	0.90	0.40	1.00	
1,3-Dichloropropane	ND	0.90	0.23	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.5	0.30	1.00	
1,1-Dichloropropene	ND	1.8	0.30	1.00	
c-1,3-Dichloropropene	ND	0.90	0.23	1.00	
t-1,3-Dichloropropene	ND	1.8	0.55	1.00	
Ethylbenzene	ND	0.90	0.14	1.00	
2-Hexanone	ND	18	1.6	1.00	
Isopropylbenzene	ND	0.90	0.49	1.00	
p-Isopropyltoluene	ND	0.90	0.57	1.00	
Methylene Chloride	ND	9.0	1.2	1.00	
4-Methyl-2-Pentanone	ND	18	3.9	1.00	
Naphthalene	ND	9.0	0.73	1.00	
n-Propylbenzene	ND	1.8	0.45	1.00	
Styrene	ND	0.90	0.55	1.00	
1,1,1,2-Tetrachloroethane	ND	0.90	0.22	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	1.00	
Tetrachloroethene	ND	0.90	0.19	1.00	
Toluene	ND	0.90	0.46	1.00	
1,2,3-Trichlorobenzene	ND	1.8	0.82	1.00	
1,2,4-Trichlorobenzene	ND	1.8	0.28	1.00	
1,1,1-Trichloroethane	ND	0.90	0.20	1.00	
1,1,2-Trichloroethane	ND	0.90	0.32	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.0	0.32	1.00	
Trichloroethene	ND	1.8	0.27	1.00	
Trichlorofluoromethane	ND	9.0	0.34	1.00	
1,2,3-Trichloropropane	ND	1.8	0.75	1.00	
1,2,4-Trimethylbenzene	ND	1.8	0.53	1.00	
1,3,5-Trimethylbenzene	ND	1.8	0.50	1.00	
Vinyl Acetate	ND	9.0	4.3	1.00	
Vinyl Chloride	ND	0.90	0.45	1.00	
p/m-Xylene	ND	1.8	0.24	1.00	
o-Xylene	ND	0.90	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	99	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	119	71-155	
Toluene-d8	103	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-6-40	17-10-1049-6-C	10/13/17 09:05	Solid	GC/MS BB	10/13/17	10/18/17 03:38	171017L013

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	15	45	5.6	1.00	J
Benzene	ND	0.90	0.12	1.00	
Bromobenzene	ND	0.90	0.19	1.00	
Bromochloromethane	ND	1.8	0.62	1.00	
Bromodichloromethane	ND	0.90	0.21	1.00	
Bromoform	ND	4.5	0.71	1.00	
Bromomethane	ND	18	8.5	1.00	
2-Butanone	ND	18	3.4	1.00	
n-Butylbenzene	ND	0.90	0.14	1.00	
sec-Butylbenzene	ND	0.90	0.52	1.00	
tert-Butylbenzene	ND	0.90	0.14	1.00	
Carbon Disulfide	ND	9.0	0.27	1.00	
Carbon Tetrachloride	ND	0.90	0.25	1.00	
Chlorobenzene	ND	0.90	0.20	1.00	
Chloroethane	ND	1.8	1.3	1.00	
Chloroform	ND	0.90	0.21	1.00	
Chloromethane	ND	18	0.27	1.00	
2-Chlorotoluene	ND	0.90	0.21	1.00	
4-Chlorotoluene	ND	0.90	0.19	1.00	
Dibromochloromethane	ND	1.8	0.51	1.00	
1,2-Dibromo-3-Chloropropane	ND	4.5	1.6	1.00	
1,2-Dibromoethane	ND	0.90	0.23	1.00	
Dibromomethane	ND	0.90	0.70	1.00	
1,2-Dichlorobenzene	ND	0.90	0.21	1.00	
1,3-Dichlorobenzene	ND	0.90	0.16	1.00	
1,4-Dichlorobenzene	ND	0.90	0.20	1.00	
Dichlorodifluoromethane	ND	1.8	0.40	1.00	
1,1-Dichloroethane	ND	0.90	0.19	1.00	
1,2-Dichloroethane	ND	0.90	0.28	1.00	
1,1-Dichloroethene	ND	0.90	0.31	1.00	
c-1,2-Dichloroethene	ND	0.90	0.25	1.00	
t-1,2-Dichloroethene	ND	0.90	0.46	1.00	
1,2-Dichloropropane	ND	0.90	0.39	1.00	
1,3-Dichloropropane	ND	0.90	0.23	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	4.5	0.30	1.00	
1,1-Dichloropropene	ND	1.8	0.30	1.00	
c-1,3-Dichloropropene	ND	0.90	0.23	1.00	
t-1,3-Dichloropropene	ND	1.8	0.54	1.00	
Ethylbenzene	ND	0.90	0.14	1.00	
2-Hexanone	ND	18	1.6	1.00	
Isopropylbenzene	ND	0.90	0.49	1.00	
p-Isopropyltoluene	ND	0.90	0.57	1.00	
Methylene Chloride	ND	9.0	1.2	1.00	
4-Methyl-2-Pentanone	ND	18	3.9	1.00	
Naphthalene	ND	9.0	0.73	1.00	
n-Propylbenzene	ND	1.8	0.45	1.00	
Styrene	ND	0.90	0.54	1.00	
1,1,1,2-Tetrachloroethane	ND	0.90	0.22	1.00	
1,1,2,2-Tetrachloroethane	ND	1.8	0.31	1.00	
Tetrachloroethene	ND	0.90	0.19	1.00	
Toluene	ND	0.90	0.46	1.00	
1,2,3-Trichlorobenzene	ND	1.8	0.82	1.00	
1,2,4-Trichlorobenzene	ND	1.8	0.28	1.00	
1,1,1-Trichloroethane	ND	0.90	0.20	1.00	
1,1,2-Trichloroethane	ND	0.90	0.32	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.0	0.32	1.00	
Trichloroethene	ND	1.8	0.27	1.00	
Trichlorofluoromethane	ND	9.0	0.34	1.00	
1,2,3-Trichloropropane	ND	1.8	0.75	1.00	
1,2,4-Trimethylbenzene	ND	1.8	0.53	1.00	
1,3,5-Trimethylbenzene	ND	1.8	0.49	1.00	
Vinyl Acetate	ND	9.0	4.3	1.00	
Vinyl Chloride	ND	0.90	0.45	1.00	
p/m-Xylene	ND	1.8	0.24	1.00	
o-Xylene	ND	0.90	0.50	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	1.8	0.27	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	98	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	118	71-155	
Toluene-d8	103	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-6-55	17-10-1049-7-C	10/13/17 09:55	Solid	GC/MS BB	10/13/17	10/18/17 23:37	171018L014

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	11	50	6.2	1.00	J
Benzene	ND	0.99	0.13	1.00	
Bromobenzene	ND	0.99	0.21	1.00	
Bromochloromethane	ND	2.0	0.68	1.00	
Bromodichloromethane	ND	0.99	0.23	1.00	
Bromoform	ND	5.0	0.79	1.00	
Bromomethane	ND	20	9.3	1.00	
2-Butanone	ND	20	3.7	1.00	
n-Butylbenzene	ND	0.99	0.15	1.00	
sec-Butylbenzene	ND	0.99	0.57	1.00	
tert-Butylbenzene	ND	0.99	0.15	1.00	
Carbon Disulfide	ND	9.9	0.30	1.00	
Carbon Tetrachloride	ND	0.99	0.28	1.00	
Chlorobenzene	ND	0.99	0.22	1.00	
Chloroethane	ND	2.0	1.5	1.00	
Chloroform	ND	0.99	0.24	1.00	
Chloromethane	ND	20	0.30	1.00	
2-Chlorotoluene	ND	0.99	0.23	1.00	
4-Chlorotoluene	ND	0.99	0.21	1.00	
Dibromochloromethane	ND	2.0	0.56	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1.00	
1,2-Dibromoethane	ND	0.99	0.25	1.00	
Dibromomethane	ND	0.99	0.77	1.00	
1,2-Dichlorobenzene	ND	0.99	0.23	1.00	
1,3-Dichlorobenzene	ND	0.99	0.17	1.00	
1,4-Dichlorobenzene	ND	0.99	0.22	1.00	
Dichlorodifluoromethane	ND	2.0	0.44	1.00	
1,1-Dichloroethane	ND	0.99	0.21	1.00	
1,2-Dichloroethane	ND	0.99	0.31	1.00	
1,1-Dichloroethene	ND	0.99	0.34	1.00	
c-1,2-Dichloroethene	ND	0.99	0.28	1.00	
t-1,2-Dichloroethene	ND	0.99	0.50	1.00	
1,2-Dichloropropane	ND	0.99	0.43	1.00	
1,3-Dichloropropane	ND	0.99	0.25	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	0.99	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.60	1.00	
Ethylbenzene	ND	0.99	0.15	1.00	
2-Hexanone	ND	20	1.7	1.00	
Isopropylbenzene	ND	0.99	0.54	1.00	
p-Isopropyltoluene	ND	0.99	0.62	1.00	
Methylene Chloride	ND	9.9	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	9.9	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	0.99	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	0.99	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.34	1.00	
Tetrachloroethene	ND	0.99	0.21	1.00	
Toluene	ND	0.99	0.51	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.90	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	0.99	0.22	1.00	
1,1,2-Trichloroethane	ND	0.99	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	9.9	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	9.9	0.37	1.00	
1,2,3-Trichloropropane	ND	2.0	0.82	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.58	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.54	1.00	
Vinyl Acetate	ND	9.9	4.7	1.00	
Vinyl Chloride	ND	0.99	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	0.99	0.55	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.29	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	111	79-133	
1,2-Dichloroethane-d4	123	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
NP-6-88	17-10-1049-8-C	10/13/17 10:30	Solid	GC/MS BB	10/13/17	10/18/17 04:07	171017L013

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	56	57	7.1	1.00	J
Benzene	0.16	1.1	0.15	1.00	J
Bromobenzene	ND	1.1	0.24	1.00	
Bromochloromethane	ND	2.3	0.79	1.00	
Bromodichloromethane	ND	1.1	0.27	1.00	
Bromoform	ND	5.7	0.91	1.00	
Bromomethane	ND	23	11	1.00	
2-Butanone	14	23	4.3	1.00	J
n-Butylbenzene	ND	1.1	0.18	1.00	
sec-Butylbenzene	ND	1.1	0.66	1.00	
tert-Butylbenzene	ND	1.1	0.17	1.00	
Carbon Disulfide	ND	11	0.35	1.00	
Carbon Tetrachloride	ND	1.1	0.32	1.00	
Chlorobenzene	ND	1.1	0.26	1.00	
Chloroethane	ND	2.3	1.7	1.00	
Chloroform	ND	1.1	0.27	1.00	
Chloromethane	ND	23	0.35	1.00	
2-Chlorotoluene	ND	1.1	0.26	1.00	
4-Chlorotoluene	ND	1.1	0.24	1.00	
Dibromochloromethane	ND	2.3	0.65	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.7	2.0	1.00	
1,2-Dibromoethane	ND	1.1	0.29	1.00	
Dibromomethane	ND	1.1	0.89	1.00	
1,2-Dichlorobenzene	ND	1.1	0.26	1.00	
1,3-Dichlorobenzene	ND	1.1	0.20	1.00	
1,4-Dichlorobenzene	ND	1.1	0.25	1.00	
Dichlorodifluoromethane	ND	2.3	0.51	1.00	
1,1-Dichloroethane	ND	1.1	0.24	1.00	
1,2-Dichloroethane	ND	1.1	0.36	1.00	
1,1-Dichloroethene	ND	1.1	0.40	1.00	
c-1,2-Dichloroethene	ND	1.1	0.32	1.00	
t-1,2-Dichloroethene	ND	1.1	0.58	1.00	
1,2-Dichloropropane	ND	1.1	0.50	1.00	
1,3-Dichloropropane	ND	1.1	0.29	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.7	0.38	1.00	
1,1-Dichloropropene	ND	2.3	0.38	1.00	
c-1,3-Dichloropropene	ND	1.1	0.29	1.00	
t-1,3-Dichloropropene	ND	2.3	0.69	1.00	
Ethylbenzene	ND	1.1	0.17	1.00	
2-Hexanone	ND	23	2.0	1.00	
Isopropylbenzene	ND	1.1	0.62	1.00	
p-Isopropyltoluene	ND	1.1	0.72	1.00	
Methylene Chloride	ND	11	1.5	1.00	
4-Methyl-2-Pentanone	ND	23	4.9	1.00	
Naphthalene	ND	11	0.93	1.00	
n-Propylbenzene	ND	2.3	0.57	1.00	
Styrene	ND	1.1	0.69	1.00	
1,1,1,2-Tetrachloroethane	ND	1.1	0.27	1.00	
1,1,2,2-Tetrachloroethane	ND	2.3	0.40	1.00	
Tetrachloroethene	ND	1.1	0.24	1.00	
Toluene	ND	1.1	0.59	1.00	
1,2,3-Trichlorobenzene	ND	2.3	1.0	1.00	
1,2,4-Trichlorobenzene	ND	2.3	0.35	1.00	
1,1,1-Trichloroethane	ND	1.1	0.26	1.00	
1,1,2-Trichloroethane	ND	1.1	0.41	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	0.40	1.00	
Trichloroethene	ND	2.3	0.34	1.00	
Trichlorofluoromethane	ND	11	0.43	1.00	
1,2,3-Trichloropropane	ND	2.3	0.95	1.00	
1,2,4-Trimethylbenzene	ND	2.3	0.67	1.00	
1,3,5-Trimethylbenzene	ND	2.3	0.63	1.00	
Vinyl Acetate	ND	11	5.4	1.00	
Vinyl Chloride	ND	1.1	0.58	1.00	
p/m-Xylene	ND	2.3	0.31	1.00	
o-Xylene	ND	1.1	0.64	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.3	0.34	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	110	79-133	
1,2-Dichloroethane-d4	125	71-155	
Toluene-d8	101	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-312-864	N/A	Solid	GC/MS BB	10/17/17	10/17/17 18:56	171017L013

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1.00	
Benzene	ND	1.0	0.13	1.00	
Bromobenzene	ND	1.0	0.21	1.00	
Bromochloromethane	ND	2.0	0.69	1.00	
Bromodichloromethane	ND	1.0	0.23	1.00	
Bromoform	ND	5.0	0.79	1.00	
Bromomethane	ND	20	9.4	1.00	
2-Butanone	ND	20	3.8	1.00	
n-Butylbenzene	ND	1.0	0.16	1.00	
sec-Butylbenzene	ND	1.0	0.58	1.00	
tert-Butylbenzene	ND	1.0	0.15	1.00	
Carbon Disulfide	ND	10	0.31	1.00	
Carbon Tetrachloride	ND	1.0	0.28	1.00	
Chlorobenzene	ND	1.0	0.22	1.00	
Chloroethane	ND	2.0	1.5	1.00	
Chloroform	ND	1.0	0.24	1.00	
Chloromethane	ND	20	0.30	1.00	
2-Chlorotoluene	ND	1.0	0.23	1.00	
4-Chlorotoluene	ND	1.0	0.21	1.00	
Dibromochloromethane	ND	2.0	0.57	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1.00	
1,2-Dibromoethane	ND	1.0	0.26	1.00	
Dibromomethane	ND	1.0	0.77	1.00	
1,2-Dichlorobenzene	ND	1.0	0.23	1.00	
1,3-Dichlorobenzene	ND	1.0	0.18	1.00	
1,4-Dichlorobenzene	ND	1.0	0.22	1.00	
Dichlorodifluoromethane	ND	2.0	0.44	1.00	
1,1-Dichloroethane	ND	1.0	0.21	1.00	
1,2-Dichloroethane	ND	1.0	0.31	1.00	
1,1-Dichloroethene	ND	1.0	0.35	1.00	
c-1,2-Dichloroethene	ND	1.0	0.28	1.00	
t-1,2-Dichloroethene	ND	1.0	0.51	1.00	
1,2-Dichloropropane	ND	1.0	0.44	1.00	
1,3-Dichloropropane	ND	1.0	0.25	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	ND	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	96	80-120	
Dibromofluoromethane	103	79-133	
1,2-Dichloroethane-d4	107	71-155	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-312-866	N/A	Solid	GC/MS BB	10/18/17	10/18/17 20:39	171018L014

Comment(s): - Results were evaluated to the MDL (DL), concentrations $\geq$ to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acetone	ND	50	6.2	1.00	
Benzene	ND	1.0	0.13	1.00	
Bromobenzene	ND	1.0	0.21	1.00	
Bromochloromethane	ND	2.0	0.69	1.00	
Bromodichloromethane	ND	1.0	0.23	1.00	
Bromoform	ND	5.0	0.79	1.00	
Bromomethane	ND	20	9.4	1.00	
2-Butanone	ND	20	3.8	1.00	
n-Butylbenzene	ND	1.0	0.16	1.00	
sec-Butylbenzene	ND	1.0	0.58	1.00	
tert-Butylbenzene	ND	1.0	0.15	1.00	
Carbon Disulfide	ND	10	0.31	1.00	
Carbon Tetrachloride	ND	1.0	0.28	1.00	
Chlorobenzene	ND	1.0	0.22	1.00	
Chloroethane	ND	2.0	1.5	1.00	
Chloroform	ND	1.0	0.24	1.00	
Chloromethane	ND	20	0.30	1.00	
2-Chlorotoluene	ND	1.0	0.23	1.00	
4-Chlorotoluene	ND	1.0	0.21	1.00	
Dibromochloromethane	ND	2.0	0.57	1.00	
1,2-Dibromo-3-Chloropropane	ND	5.0	1.7	1.00	
1,2-Dibromoethane	ND	1.0	0.26	1.00	
Dibromomethane	ND	1.0	0.77	1.00	
1,2-Dichlorobenzene	ND	1.0	0.23	1.00	
1,3-Dichlorobenzene	ND	1.0	0.18	1.00	
1,4-Dichlorobenzene	ND	1.0	0.22	1.00	
Dichlorodifluoromethane	ND	2.0	0.44	1.00	
1,1-Dichloroethane	ND	1.0	0.21	1.00	
1,2-Dichloroethane	ND	1.0	0.31	1.00	
1,1-Dichloroethene	ND	1.0	0.35	1.00	
c-1,2-Dichloroethene	ND	1.0	0.28	1.00	
t-1,2-Dichloroethene	ND	1.0	0.51	1.00	
1,2-Dichloropropane	ND	1.0	0.44	1.00	
1,3-Dichloropropane	ND	1.0	0.25	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B
Units: ug/kg

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,2-Dichloropropane	ND	5.0	0.33	1.00	
1,1-Dichloropropene	ND	2.0	0.33	1.00	
c-1,3-Dichloropropene	ND	1.0	0.25	1.00	
t-1,3-Dichloropropene	ND	2.0	0.61	1.00	
Ethylbenzene	ND	1.0	0.15	1.00	
2-Hexanone	ND	20	1.8	1.00	
Isopropylbenzene	ND	1.0	0.55	1.00	
p-Isopropyltoluene	ND	1.0	0.63	1.00	
Methylene Chloride	ND	10	1.3	1.00	
4-Methyl-2-Pentanone	ND	20	4.3	1.00	
Naphthalene	ND	10	0.81	1.00	
n-Propylbenzene	ND	2.0	0.50	1.00	
Styrene	ND	1.0	0.60	1.00	
1,1,1,2-Tetrachloroethane	ND	1.0	0.24	1.00	
1,1,2,2-Tetrachloroethane	ND	2.0	0.35	1.00	
Tetrachloroethene	ND	1.0	0.21	1.00	
Toluene	ND	1.0	0.52	1.00	
1,2,3-Trichlorobenzene	ND	2.0	0.91	1.00	
1,2,4-Trichlorobenzene	ND	2.0	0.31	1.00	
1,1,1-Trichloroethane	ND	1.0	0.23	1.00	
1,1,2-Trichloroethane	ND	1.0	0.35	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	0.35	1.00	
Trichloroethene	ND	2.0	0.30	1.00	
Trichlorofluoromethane	ND	10	0.38	1.00	
1,2,3-Trichloropropane	ND	2.0	0.83	1.00	
1,2,4-Trimethylbenzene	ND	2.0	0.59	1.00	
1,3,5-Trimethylbenzene	ND	2.0	0.55	1.00	
Vinyl Acetate	ND	10	4.7	1.00	
Vinyl Chloride	ND	1.0	0.50	1.00	
p/m-Xylene	ND	2.0	0.27	1.00	
o-Xylene	ND	1.0	0.56	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	2.0	0.30	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	97	80-120	
Dibromofluoromethane	104	79-133	
1,2-Dichloroethane-d4	110	71-155	
Toluene-d8	103	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
17-10-0469-2	Sample	Aqueous	GC/MS JJ	10/16/17	10/16/17 11:51	171016S005
17-10-0469-2	Matrix Spike	Aqueous	GC/MS JJ	10/16/17	10/16/17 12:30	171016S005
17-10-0469-2	Matrix Spike Duplicate	Aqueous	GC/MS JJ	10/16/17	10/16/17 13:01	171016S005

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acetone	ND	50.00	48.62	97	53.11	106	34-166	9	0-33	
Benzene	ND	50.00	50.87	102	53.17	106	75-125	4	0-20	
Bromobenzene	ND	50.00	52.46	105	54.09	108	75-125	3	0-20	
Bromochloromethane	ND	50.00	53.34	107	55.33	111	75-125	4	0-20	
Bromodichloromethane	ND	50.00	53.07	106	55.02	110	75-134	4	0-20	
Bromoform	ND	50.00	39.81	80	40.90	82	74-134	3	0-20	
Bromomethane	ND	50.00	56.94	114	52.14	104	20-168	9	0-40	
2-Butanone	ND	50.00	45.90	92	49.41	99	37-157	7	0-20	
n-Butylbenzene	ND	50.00	51.07	102	52.50	105	73-145	3	0-20	
sec-Butylbenzene	ND	50.00	49.82	100	52.42	105	75-135	5	0-20	
tert-Butylbenzene	ND	50.00	50.46	101	52.75	106	75-136	4	0-20	
Carbon Disulfide	ND	50.00	48.23	96	51.00	102	50-152	6	0-27	
Carbon Tetrachloride	ND	50.00	50.96	102	54.39	109	70-154	7	0-20	
Chlorobenzene	ND	50.00	50.24	100	51.10	102	75-125	2	0-20	
Chloroethane	ND	50.00	64.84	130	64.97	130	41-167	0	0-26	
Chloroform	ND	50.00	50.40	101	53.17	106	75-127	5	0-20	
Chloromethane	ND	50.00	58.43	117	60.84	122	41-149	4	0-20	
2-Chlorotoluene	ND	50.00	54.07	108	55.75	112	75-128	3	0-20	
4-Chlorotoluene	ND	50.00	51.52	103	52.05	104	75-125	1	0-20	
Dibromochloromethane	ND	50.00	48.03	96	49.79	100	75-131	4	0-20	
1,2-Dibromo-3-Chloropropane	ND	50.00	52.33	105	56.60	113	64-142	8	0-20	
1,2-Dibromoethane	ND	50.00	50.69	101	52.15	104	75-129	3	0-20	
Dibromomethane	ND	50.00	50.55	101	51.84	104	75-125	3	0-20	
1,2-Dichlorobenzene	ND	50.00	50.92	102	52.32	105	75-125	3	0-20	
1,3-Dichlorobenzene	ND	50.00	50.67	101	51.25	102	75-125	1	0-20	
1,4-Dichlorobenzene	ND	50.00	50.32	101	51.28	103	75-125	2	0-20	
Dichlorodifluoromethane	ND	50.00	73.98	148	69.01	138	25-157	7	0-26	
1,1-Dichloroethane	ND	50.00	49.30	99	52.50	105	73-139	6	0-20	
1,2-Dichloroethane	ND	50.00	53.18	106	54.56	109	75-125	3	0-20	
1,1-Dichloroethene	ND	50.00	50.42	101	51.82	104	61-145	3	0-20	
c-1,2-Dichloroethene	ND	50.00	49.08	98	51.98	104	75-125	6	0-20	
t-1,2-Dichloroethene	ND	50.00	51.31	103	54.19	108	64-142	5	0-20	
1,2-Dichloropropane	ND	50.00	49.46	99	51.01	102	75-127	3	0-20	
1,3-Dichloropropane	ND	50.00	49.48	99	50.34	101	75-125	2	0-20	
2,2-Dichloropropane	ND	50.00	50.57	101	52.04	104	24-180	3	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,1-Dichloropropene	ND	50.00	51.32	103	53.06	106	75-135	3	0-20	
c-1,3-Dichloropropene	ND	50.00	49.74	99	50.77	102	75-137	2	0-20	
t-1,3-Dichloropropene	ND	50.00	49.89	100	50.09	100	74-146	0	0-20	
Ethylbenzene	ND	50.00	52.66	105	53.42	107	75-129	1	0-20	
2-Hexanone	ND	50.00	47.08	94	50.06	100	47-161	6	0-20	
Isopropylbenzene	ND	50.00	53.03	106	55.02	110	75-135	4	0-20	
p-Isopropyltoluene	ND	50.00	49.67	99	51.89	104	75-136	4	0-20	
Methylene Chloride	ND	50.00	48.67	97	51.71	103	63-141	6	0-20	
4-Methyl-2-Pentanone	ND	50.00	47.39	95	49.96	100	66-138	5	0-20	
Naphthalene	ND	50.00	51.04	102	53.83	108	59-143	5	0-20	
n-Propylbenzene	ND	50.00	54.05	108	55.39	111	75-133	2	0-20	
Styrene	ND	50.00	52.55	105	53.09	106	70-142	1	0-28	
1,1,1,2-Tetrachloroethane	ND	50.00	48.69	97	51.93	104	75-139	6	0-20	
1,1,2,2-Tetrachloroethane	ND	50.00	48.01	96	50.26	101	61-145	5	0-20	
Tetrachloroethene	ND	50.00	46.40	93	45.91	92	47-143	1	0-20	
Toluene	ND	50.00	51.89	104	53.43	107	75-125	3	0-20	
1,2,3-Trichlorobenzene	ND	50.00	50.52	101	52.98	106	73-133	5	0-20	
1,2,4-Trichlorobenzene	ND	50.00	51.74	103	53.72	107	71-137	4	0-20	
1,1,1-Trichloroethane	ND	50.00	50.40	101	54.15	108	75-136	7	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50.00	56.61	113	54.56	109	42-168	4	0-22	
1,1,2-Trichloroethane	ND	50.00	49.93	100	50.68	101	75-125	1	0-20	
Trichloroethene	ND	50.00	50.30	101	51.31	103	67-139	2	0-20	
Trichlorofluoromethane	ND	50.00	66.50	133	63.36	127	59-155	5	0-20	
1,2,3-Trichloropropane	ND	50.00	49.88	100	51.26	103	75-127	3	0-20	
1,2,4-Trimethylbenzene	ND	50.00	48.22	96	48.92	98	75-133	1	0-20	
1,3,5-Trimethylbenzene	ND	50.00	52.31	105	54.42	109	75-135	4	0-20	
Vinyl Acetate	ND	50.00	31.21	62	31.97	64	54-180	2	0-25	
Vinyl Chloride	ND	50.00	68.07	136	68.38	137	51-153	0	0-20	
p/m-Xylene	ND	100.0	106.7	107	108.5	109	75-133	2	0-20	
o-Xylene	ND	50.00	53.77	108	54.93	110	75-134	2	0-20	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	48.45	97	50.30	101	64-136	4	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-316-3679	LCS	Aqueous	GC/MS JJ	10/16/17	10/16/17 09:37	171016L013
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Acetone	50.00	46.45	93	50-150	33-167	
Benzene	50.00	51.23	102	78-120	71-127	
Bromobenzene	50.00	53.38	107	80-120	73-127	
Bromochloromethane	50.00	56.06	112	77-125	69-133	
Bromodichloromethane	50.00	53.99	108	80-125	72-132	
Bromoform	50.00	41.81	84	68-128	58-138	
Bromomethane	50.00	56.94	114	50-150	33-167	
2-Butanone	50.00	43.46	87	53-137	39-151	
n-Butylbenzene	50.00	53.98	108	78-132	69-141	
sec-Butylbenzene	50.00	53.12	106	80-125	72-132	
tert-Butylbenzene	50.00	52.71	105	80-125	72-132	
Carbon Disulfide	50.00	51.35	103	50-150	33-167	
Carbon Tetrachloride	50.00	54.64	109	67-139	55-151	
Chlorobenzene	50.00	50.81	102	80-120	73-127	
Chloroethane	50.00	56.94	114	64-130	53-141	
Chloroform	50.00	51.97	104	77-120	70-127	
Chloromethane	50.00	55.41	111	56-128	44-140	
2-Chlorotoluene	50.00	54.22	108	80-121	73-128	
4-Chlorotoluene	50.00	52.06	104	80-120	73-127	
Dibromochloromethane	50.00	50.09	100	77-125	69-133	
1,2-Dibromo-3-Chloropropane	50.00	49.17	98	68-128	58-138	
1,2-Dibromoethane	50.00	51.44	103	80-120	73-127	
Dibromomethane	50.00	50.24	100	80-120	73-127	
1,2-Dichlorobenzene	50.00	51.89	104	80-120	73-127	
1,3-Dichlorobenzene	50.00	51.55	103	80-120	73-127	
1,4-Dichlorobenzene	50.00	51.84	104	80-120	73-127	
Dichlorodifluoromethane	50.00	68.97	138	50-150	33-167	
1,1-Dichloroethane	50.00	51.61	103	73-127	64-136	
1,2-Dichloroethane	50.00	53.19	106	75-123	67-131	
1,1-Dichloroethene	50.00	52.28	105	64-136	52-148	
c-1,2-Dichloroethene	50.00	50.44	101	78-120	71-127	
t-1,2-Dichloroethene	50.00	53.61	107	70-130	60-140	
1,2-Dichloropropane	50.00	50.09	100	80-120	73-127	
1,3-Dichloropropane	50.00	50.27	101	80-120	73-127	
2,2-Dichloropropane	50.00	53.03	106	53-155	36-172	
1,1-Dichloropropene	50.00	53.39	107	73-127	64-136	
c-1,3-Dichloropropene	50.00	50.81	102	80-129	72-137	
t-1,3-Dichloropropene	50.00	51.19	102	78-132	69-141	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5030C
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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<u>Parameter</u>	<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Ethylbenzene	50.00	52.98	106	80-120	73-127	
2-Hexanone	50.00	45.33	91	59-131	47-143	
Isopropylbenzene	50.00	53.74	107	80-126	72-134	
p-Isopropyltoluene	50.00	53.13	106	80-129	72-137	
Methylene Chloride	50.00	51.21	102	73-127	64-136	
4-Methyl-2-Pentanone	50.00	44.55	89	68-122	59-131	
Naphthalene	50.00	51.38	103	64-136	52-148	
n-Propylbenzene	50.00	55.02	110	80-125	72-132	
Styrene	50.00	53.41	107	80-122	73-129	
1,1,1,2-Tetrachloroethane	50.00	52.15	104	80-126	72-134	
1,1,2,2-Tetrachloroethane	50.00	47.24	94	76-120	69-127	
Tetrachloroethene	50.00	51.31	103	54-144	39-159	
Toluene	50.00	51.62	103	80-122	73-129	
1,2,3-Trichlorobenzene	50.00	54.06	108	76-130	67-139	
1,2,4-Trichlorobenzene	50.00	56.15	112	74-134	64-144	
1,1,1-Trichloroethane	50.00	52.54	105	73-127	64-136	
Hexachloro-1,3-Butadiene	50.00	57.47	115	75-135	65-145	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	58.77	118	53-155	36-172	
1,1,2-Trichloroethane	50.00	50.20	100	80-120	73-127	
Trichloroethene	50.00	50.79	102	77-125	69-133	
Trichlorofluoromethane	50.00	61.39	123	69-141	57-153	
1,2,3-Trichloropropane	50.00	49.53	99	77-125	69-133	
1,2,4-Trimethylbenzene	50.00	50.57	101	80-123	73-130	
1,3,5-Trimethylbenzene	50.00	54.85	110	80-126	72-134	
Vinyl Acetate	50.00	33.20	66	50-150	33-167	
Vinyl Chloride	50.00	61.83	124	63-135	51-147	
p/m-Xylene	100.0	108.2	108	80-125	72-132	
o-Xylene	50.00	53.97	108	80-125	72-132	
Methyl-t-Butyl Ether (MTBE)	50.00	50.42	101	77-120	70-127	

Total number of LCS compounds: 67

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-864	LCS	Solid	GC/MS BB	10/17/17	10/17/17 17:17	171017L013
099-14-312-864	LCSD	Solid	GC/MS BB	10/17/17	10/17/17 17:46	171017L013

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	48.81	98	57.30	115	30-150	10-170	16	0-20	
Benzene	50.00	46.75	93	49.91	100	79-120	72-127	7	0-20	
Bromobenzene	50.00	50.32	101	53.81	108	80-120	73-127	7	0-20	
Bromochloromethane	50.00	49.92	100	54.36	109	80-120	73-127	9	0-20	
Bromodichloromethane	50.00	52.64	105	57.01	114	73-127	64-136	8	0-20	
Bromoform	50.00	49.58	99	50.74	101	55-133	42-146	2	0-20	
Bromomethane	50.00	38.89	78	43.04	86	36-144	18-162	10	0-20	
2-Butanone	50.00	50.71	101	54.37	109	56-176	36-196	7	0-20	
n-Butylbenzene	50.00	48.10	96	49.91	100	78-126	70-134	4	0-20	
sec-Butylbenzene	50.00	47.13	94	49.69	99	79-127	71-135	5	0-20	
tert-Butylbenzene	50.00	47.50	95	51.12	102	80-128	72-136	7	0-20	
Carbon Disulfide	50.00	45.18	90	49.39	99	53-125	41-137	9	0-20	
Carbon Tetrachloride	50.00	52.11	104	56.44	113	58-142	44-156	8	0-20	
Chlorobenzene	50.00	48.13	96	51.15	102	80-120	73-127	6	0-20	
Chloroethane	50.00	46.67	93	50.55	101	60-120	50-130	8	0-20	
Chloroform	50.00	48.22	96	52.83	106	80-120	73-127	9	0-20	
Chloromethane	50.00	49.46	99	53.45	107	50-122	38-134	8	0-20	
2-Chlorotoluene	50.00	48.96	98	52.51	105	80-125	72-132	7	0-20	
4-Chlorotoluene	50.00	46.65	93	49.81	100	80-120	73-127	7	0-20	
Dibromochloromethane	50.00	55.14	110	58.35	117	70-130	60-140	6	0-20	
1,2-Dibromo-3-Chloropropane	50.00	56.62	113	58.88	118	54-132	41-145	4	0-20	
1,2-Dibromoethane	50.00	52.14	104	54.92	110	80-120	73-127	5	0-20	
Dibromomethane	50.00	47.57	95	51.30	103	80-122	73-129	8	0-20	
1,2-Dichlorobenzene	50.00	48.69	97	51.92	104	80-120	73-127	6	0-20	
1,3-Dichlorobenzene	50.00	47.31	95	49.78	100	80-120	73-127	5	0-20	
1,4-Dichlorobenzene	50.00	47.02	94	49.70	99	80-120	73-127	6	0-20	
Dichlorodifluoromethane	50.00	57.15	114	60.92	122	32-158	11-179	6	0-20	
1,1-Dichloroethane	50.00	47.37	95	51.40	103	74-120	66-128	8	0-20	
1,2-Dichloroethane	50.00	49.34	99	52.24	104	79-121	72-128	6	0-20	
1,1-Dichloroethene	50.00	45.09	90	48.43	97	71-125	62-134	7	0-20	
c-1,2-Dichloroethene	50.00	47.98	96	52.95	106	80-123	73-130	10	0-20	
t-1,2-Dichloroethene	50.00	46.55	93	50.95	102	80-120	73-127	9	0-20	
1,2-Dichloropropane	50.00	50.67	101	53.69	107	77-120	70-127	6	0-20	
1,3-Dichloropropane	50.00	50.86	102	53.32	107	80-120	73-127	5	0-20	
2,2-Dichloropropane	50.00	46.85	94	51.13	102	58-142	44-156	9	0-20	
1,1-Dichloropropene	50.00	47.30	95	51.79	104	69-120	60-128	9	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 4 of 6

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	50.18	100	54.08	108	74-128	65-137	7	0-20	
t-1,3-Dichloropropene	50.00	55.64	111	59.27	119	66-120	57-129	6	0-20	
Ethylbenzene	50.00	47.06	94	49.71	99	80-120	73-127	5	0-20	
2-Hexanone	50.00	53.44	107	57.49	115	67-151	53-165	7	0-20	
Isopropylbenzene	50.00	46.63	93	50.09	100	80-129	72-137	7	0-20	
p-Isopropyltoluene	50.00	47.73	95	50.36	101	80-122	73-129	5	0-20	
Methylene Chloride	50.00	48.46	97	52.08	104	72-120	64-128	7	0-20	
4-Methyl-2-Pentanone	50.00	50.50	101	53.12	106	72-126	63-135	5	0-20	
Naphthalene	50.00	50.53	101	52.96	106	64-124	54-134	5	0-20	
n-Propylbenzene	50.00	48.26	97	51.97	104	80-122	73-129	7	0-20	
Styrene	50.00	49.12	98	52.17	104	80-123	73-130	6	0-20	
1,1,1,2-Tetrachloroethane	50.00	55.44	111	59.89	120	73-133	63-143	8	0-20	
1,1,2,2-Tetrachloroethane	50.00	51.20	102	54.99	110	77-120	70-127	7	0-20	
Tetrachloroethene	50.00	44.37	89	48.83	98	75-123	67-131	10	0-20	
Toluene	50.00	45.48	91	49.25	98	80-120	73-127	8	0-20	
1,2,3-Trichlorobenzene	50.00	47.48	95	50.38	101	73-127	64-136	6	0-20	
1,2,4-Trichlorobenzene	50.00	48.39	97	51.35	103	74-128	65-137	6	0-20	
1,1,1-Trichloroethane	50.00	47.62	95	52.01	104	71-131	61-141	9	0-20	
1,1,2-Trichloroethane	50.00	53.02	106	54.44	109	80-120	73-127	3	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	45.40	91	49.41	99	77-125	69-133	8	0-20	
Trichloroethene	50.00	46.70	93	49.79	100	80-120	73-127	6	0-20	
Trichlorofluoromethane	50.00	50.39	101	53.30	107	70-136	59-147	6	0-20	
1,2,3-Trichloropropane	50.00	54.28	109	56.75	114	60-120	50-130	4	0-20	
1,2,4-Trimethylbenzene	50.00	46.15	92	49.01	98	75-123	67-131	6	0-20	
1,3,5-Trimethylbenzene	50.00	48.04	96	51.20	102	80-123	73-130	6	0-20	
Vinyl Acetate	50.00	45.64	91	49.54	99	51-159	33-177	8	0-20	
Vinyl Chloride	50.00	48.52	97	53.11	106	68-120	59-129	9	0-20	
p/m-Xylene	100.0	91.71	92	97.41	97	80-122	73-129	6	0-20	
o-Xylene	50.00	46.89	94	50.56	101	79-127	71-135	8	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	48.66	97	53.02	106	64-124	54-134	9	0-20	

Total number of LCS compounds: 66

Total number of ME compounds: 0

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 5 of 6

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-312-866	LCS	Solid	GC/MS BB	10/18/17	10/18/17 18:17	171018L014
099-14-312-866	LCSD	Solid	GC/MS BB	10/18/17	10/18/17 19:41	171018L014

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acetone	50.00	48.36	97	56.65	113	30-150	10-170	16	0-20	
Benzene	50.00	51.11	102	51.34	103	79-120	72-127	0	0-20	
Bromobenzene	50.00	56.07	112	56.23	112	80-120	73-127	0	0-20	
Bromochloromethane	50.00	54.04	108	55.46	111	80-120	73-127	3	0-20	
Bromodichloromethane	50.00	56.30	113	56.09	112	73-127	64-136	0	0-20	
Bromoform	50.00	52.87	106	52.27	105	55-133	42-146	1	0-20	
Bromomethane	50.00	45.43	91	47.55	95	36-144	18-162	5	0-20	
2-Butanone	50.00	55.34	111	51.88	104	56-176	36-196	6	0-20	
n-Butylbenzene	50.00	53.48	107	54.65	109	78-126	70-134	2	0-20	
sec-Butylbenzene	50.00	51.45	103	52.49	105	79-127	71-135	2	0-20	
tert-Butylbenzene	50.00	50.83	102	52.89	106	80-128	72-136	4	0-20	
Carbon Disulfide	50.00	49.63	99	50.45	101	53-125	41-137	2	0-20	
Carbon Tetrachloride	50.00	57.73	115	58.20	116	58-142	44-156	1	0-20	
Chlorobenzene	50.00	52.38	105	52.94	106	80-120	73-127	1	0-20	
Chloroethane	50.00	52.70	105	57.08	114	60-120	50-130	8	0-20	
Chloroform	50.00	53.01	106	52.94	106	80-120	73-127	0	0-20	
Chloromethane	50.00	55.75	112	57.81	116	50-122	38-134	4	0-20	
2-Chlorotoluene	50.00	54.44	109	56.42	113	80-125	72-132	4	0-20	
4-Chlorotoluene	50.00	51.60	103	52.28	105	80-120	73-127	1	0-20	
Dibromochloromethane	50.00	57.82	116	58.29	117	70-130	60-140	1	0-20	
1,2-Dibromo-3-Chloropropane	50.00	62.64	125	57.33	115	54-132	41-145	9	0-20	
1,2-Dibromoethane	50.00	54.63	109	54.01	108	80-120	73-127	1	0-20	
Dibromomethane	50.00	50.97	102	50.90	102	80-122	73-129	0	0-20	
1,2-Dichlorobenzene	50.00	53.63	107	52.92	106	80-120	73-127	1	0-20	
1,3-Dichlorobenzene	50.00	52.61	105	52.80	106	80-120	73-127	0	0-20	
1,4-Dichlorobenzene	50.00	52.52	105	52.96	106	80-120	73-127	1	0-20	
Dichlorodifluoromethane	50.00	62.09	124	64.90	130	32-158	11-179	4	0-20	
1,1-Dichloroethane	50.00	52.32	105	52.68	105	74-120	66-128	1	0-20	
1,2-Dichloroethane	50.00	52.94	106	50.88	102	79-121	72-128	4	0-20	
1,1-Dichloroethene	50.00	48.15	96	49.95	100	71-125	62-134	4	0-20	
c-1,2-Dichloroethene	50.00	52.05	104	52.48	105	80-123	73-130	1	0-20	
t-1,2-Dichloroethene	50.00	50.01	100	50.44	101	80-120	73-127	1	0-20	
1,2-Dichloropropane	50.00	54.27	109	55.08	110	77-120	70-127	1	0-20	
1,3-Dichloropropane	50.00	55.00	110	54.31	109	80-120	73-127	1	0-20	
2,2-Dichloropropane	50.00	50.48	101	55.64	111	58-142	44-156	10	0-20	
1,1-Dichloropropene	50.00	49.92	100	52.14	104	69-120	60-128	4	0-20	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

Geosyntec Consultants
2100 Main Street, Suite 150
Huntington Beach, CA 92648-2460

Date Received: 10/13/17
Work Order: 17-10-1049
Preparation: EPA 5035
Method: EPA 8260B

Project: 777 N. Front Street / HR1305D-01

Page 6 of 6

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
c-1,3-Dichloropropene	50.00	54.09	108	54.84	110	74-128	65-137	1	0-20	ME
t-1,3-Dichloropropene	50.00	59.32	119	60.71	121	66-120	57-129	2	0-20	
Ethylbenzene	50.00	52.92	106	53.12	106	80-120	73-127	0	0-20	
2-Hexanone	50.00	56.64	113	54.33	109	67-151	53-165	4	0-20	
Isopropylbenzene	50.00	52.48	105	53.59	107	80-129	72-137	2	0-20	
p-Isopropyltoluene	50.00	53.35	107	53.29	107	80-122	73-129	0	0-20	
Methylene Chloride	50.00	54.51	109	54.93	110	72-120	64-128	1	0-20	
4-Methyl-2-Pentanone	50.00	55.11	110	53.95	108	72-126	63-135	2	0-20	
Naphthalene	50.00	54.50	109	52.15	104	64-124	54-134	4	0-20	
n-Propylbenzene	50.00	54.08	108	55.83	112	80-122	73-129	3	0-20	
Styrene	50.00	54.88	110	55.59	111	80-123	73-130	1	0-20	
1,1,1,2-Tetrachloroethane	50.00	61.83	124	62.63	125	73-133	63-143	1	0-20	
1,1,2,2-Tetrachloroethane	50.00	55.72	111	53.21	106	77-120	70-127	5	0-20	
Tetrachloroethene	50.00	48.58	97	48.58	97	75-123	67-131	0	0-20	
Toluene	50.00	50.79	102	51.82	104	80-120	73-127	2	0-20	
1,2,3-Trichlorobenzene	50.00	52.43	105	51.25	103	73-127	64-136	2	0-20	
1,2,4-Trichlorobenzene	50.00	53.73	107	55.31	111	74-128	65-137	3	0-20	
1,1,1-Trichloroethane	50.00	51.54	103	53.19	106	71-131	61-141	3	0-20	
1,1,2-Trichloroethane	50.00	56.17	112	55.16	110	80-120	73-127	2	0-20	
1,1,2-Trichloro-1,2,2-Trifluoroethane	50.00	48.56	97	48.42	97	77-125	69-133	0	0-20	
Trichloroethene	50.00	50.95	102	51.90	104	80-120	73-127	2	0-20	
Trichlorofluoromethane	50.00	55.99	112	61.70	123	70-136	59-147	10	0-20	
1,2,3-Trichloropropane	50.00	60.80	122	59.59	119	60-120	50-130	2	0-20	ME
1,2,4-Trimethylbenzene	50.00	50.82	102	50.65	101	75-123	67-131	0	0-20	
1,3,5-Trimethylbenzene	50.00	53.81	108	54.41	109	80-123	73-130	1	0-20	
Vinyl Acetate	50.00	49.53	99	49.86	100	51-159	33-177	1	0-20	
Vinyl Chloride	50.00	54.12	108	56.39	113	68-120	59-129	4	0-20	
p/m-Xylene	100.0	102.6	103	103.6	104	80-122	73-129	1	0-20	
o-Xylene	50.00	52.43	105	53.48	107	79-127	71-135	2	0-20	
Methyl-t-Butyl Ether (MTBE)	50.00	50.34	101	49.94	100	64-124	54-134	1	0-20	

Total number of LCS compounds: 66

Total number of ME compounds: 2

Total number of ME compounds allowed: 3

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Sample Analysis Summary Report

Work Order: 17-10-1049

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8260B	EPA 5035	1120	GC/MS BB	2
EPA 8260B	EPA 5030C	1135	GC/MS JJ	2


Return to Contents

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 17-10-1049

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



77440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us28_sales@eurofinsus.com or call us.

Geosyntec Consultants

ADDRESS: 2100 Main St. #150

STATE: CA

F-MAIL :

TEL: 714-465-1258
E-MAIL: jwharton@gcosyntec.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COLECTED ☐ OTHER

SPECIAL INSTRUCTIONS:

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WFO NO. / LAB USE ONLY

17-10-1049

CLIENT PROJECT NAME / NO.:

777 N. Front St.

PROJECT CONTACT:

Goodwin Wharfton

GLOBAL ID:

LOG CODE:

SAMPLER(S): (PRINT)

P.O. NO.:

HR1305D-01

LAB CONTACT OR QUOTE NO.:

Stephan Nowak

SAMPLER(S): (PRINT) G. Wharton

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY		SAMPLE ID	SAMPLING		MATRIX	NO OF CONT.	ANALYSIS										Unpreserved	Preserved	Field Filtered	□ TPH(g) □ GRO	□ TPH(d) □ DRO	TPH □ C6-C36 □ C8-C44	TPH	BTX / MTBE □ 8260 □	VOCs (8260)	Oxygenates (8260)	Prep (5035) □ En Core □ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs □ 8270 □ 8270 SIM	T22 Metals □ 6010/747X □ 6020/747X	Cr(VI) □ 7196 □ 7199 □ 218.6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</
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Relinquished by: (Signature) *David L. Hester*

Relinquished by: (Signature)

Relinquished by: (Signature)

Received by: (Signature/Affiliation)

Received by: (Signature/Amplification)

Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

Date:

Time:

Date:

Time:

Date: /

Time:

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1CLIENT: GEOSYNTECDATE: 10/13/2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: -0.4°C); Temperature (w/o CF): 3.6 °C (w/ CF): 3.2 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: 804

CUSTODY SEAL:

Cooler ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 804Sample(s) ☐ Present and Intact ☐ Present but Not Intact ☒ Not Present ☐ N/AChecked by: 728

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/ASamples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☐ Dissolved MetalsAcid/base preserved samples - pH within acceptable range ☐ Yes ☐ No ☒ N/AContainer(s) for certain analysis free of headspace ☒ Yes ☐ No ☐ N/A☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☒ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB ☐ 125PBz₂na (pH__9)☐ 250AGB ☐ 250CGB ☐ 250CGBs (pH__2) ☐ 250PB ☐ 250PBn (pH__2) ☐ 500AGB ☐ 500AGJ ☐ 500AGJs (pH__2) ☐ 500PB☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs (pH__2) ☐ 1AGBs (O&G) ☐ 1PB ☐ 1PBna (pH__12) ☐ _____ ☐ _____Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® (____) ☒ TerraCores® (3) ☒ 2 ☐ _____ ☐ _____Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (____): ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 728s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z₂na = Zn (CH₃CO₂)₂ + NaOHReviewed by: 659

APPENDIX D

Laboratory Reports, Soil Vapor



714-449-9937
562-646-1611
805-399-0060

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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**JONES ENVIRONMENTAL
LABORATORY RESULTS**

Client: Geosyntec Consultants
Client Address: 199 S. Hudson Avenue, Suite 110
Pasadena, CA

Report date: 11/16/2017
JEL Ref. No.: D-1409
Client Ref. No.: HR1305D

Attn: Mital Desai

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017
Physical State: Soil Gas

Project Address: 777 North Front Street
Burbank, 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-pentane, n-hexane, and n-heptane 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-pentane, n-hexane, or n-heptane was found in any of the samples reported herein.

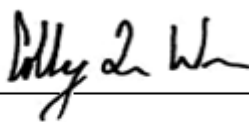
The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

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 at least one minute. 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.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

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, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of sampling.

Approval:


Colby Wakeman
QA/QC Manager



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Geosyntec Consultants
Client Address: 199 S. Hudson Avenue, Suite 110
Pasadena, CA

Report date: 11/16/2017
Jones Ref. No.: D-1409
Client Ref. No.: HR1305D

Attn: Mital Desai

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017

Project Address: 777 North Front Street
Burbank, CA

Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	NP-8-17	NP-8-37	NP-8-37 REP	NP-8-57	NP-8-80		
<u>Jones ID:</u>	D-1409-01	D-1409-02	D-1409-03	D-1409-04	D-1409-05	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
Bromoform	ND	ND	ND	ND	ND	8 (5)	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Carbon tetrachloride	30	34	32	9	27	8 (5)	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Chloroform	ND	ND	ND	7 J	28	8 (3)	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8 (6)	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dichlorodifluoromethane	33	184	181	363	450	8 (5)	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	30	8 (4)	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloroethene	ND	109	103	1210	3840	8 (5)	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	6 J	8 (3)	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (2)	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8 (4)	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID:

NP-8-17

NP-8-37

NP-8-37
REP

NP-8-57

NP-8-80

Jones ID:

D-1409-01

D-1409-02

D-1409-03

D-1409-04

D-1409-05

**Practical
Quantitation
Limit (MDL)**

Units

Analytes:

cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Freon 113	ND	ND	ND	105	186	40 (5)	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8 (8)	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8 (3)	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40 (6)	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Styrene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
Tetrachloroethene	2290	3440	2900	3370	5980	8 (3)	µg/m3
Toluene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40 (6)	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1,1-Trichloroethane	225	250	242	197	196	8 (4)	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
Trichloroethene	ND	18	17	429	2310	8 (3)	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8 (4)	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8 (6)	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8 (5)	µg/m3
MTBE	ND	ND	ND	ND	ND	40 (9)	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40 (22)	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40 (5)	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40 (6)	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400 (38)	µg/m3

TIC:

n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3

Dilution Factor

1

1

1

1

1

Surrogate Recoveries:

QC Limits

Dibromofluoromethane	95%	98%	94%	95%	95%	60 - 140
Toluene-d8	85%	84%	81%	84%	81%	60 - 140
4-Bromofluorobenzene	81%	83%	79%	81%	80%	60 - 140

D1-111617- D1-111617- D1-111617- D1-111617- D1-111617-
D-1409 D-1409 D-1409 D-1409 D-1409

ND= Not Detected

J Flag = Estimated Value



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JONES ENVIRONMENTAL LABORATORY RESULTS

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Pasadena, CA

Report date: 11/16/2017
Jones Ref. No.: D-1409
Client Ref. No.: HR1305D

Attn: Mital Desai

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017

Project Address: 777 North Front Street
Burbank, CA

Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	NP-7-17	NP-7-17 REP	NP-7-35	NP-7-53	NP-6-15		
<u>Jones ID:</u>	D-1409-06	D-1409-07	D-1409-08	D-1409-09	D-1409-10	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
Bromodichloromethane	ND	ND	4 J	ND	ND	8 (3)	µg/m3
Bromoform	ND	ND	ND	ND	ND	8 (5)	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Carbon tetrachloride	ND	ND	ND	14	ND	8 (5)	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Chloroform	ND	ND	18	47	ND	8 (3)	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Dibromochloromethane	ND	ND	4 J	ND	ND	8 (4)	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8 (6)	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dichlorodifluoromethane	624	625	1830	1040	60	8 (5)	µg/m3
1,1-Dichloroethane	ND	ND	ND	9	ND	8 (4)	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloroethene	ND	ND	134	991	ND	8 (5)	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (2)	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8 (4)	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID:

NP-7-17

NP-7-17
REP

NP-7-35

NP-7-53

NP-6-15

Jones ID:

D-1409-06

D-1409-07

D-1409-08

D-1409-09

D-1409-10

**Practical
Quantitation
Limit (MDL)**

Units

Analytes:

cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Freon 113	53	55	159	117	ND	40 (5)	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8 (8)	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8 (3)	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40 (6)	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Styrene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
Tetrachloroethene	5450	5920	7920	8410	5580	8 (3)	µg/m3
Toluene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40 (6)	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1,1-Trichloroethane	19	20	14	20	22	8 (4)	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
Trichloroethene	28	20	1160	3080	13	8 (3)	µg/m3
Trichlorofluoromethane	7 J	8	18	7 J	ND	8 (5)	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Vinyl chloride	ND	ND	ND	5 J	ND	8 (4)	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8 (6)	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8 (5)	µg/m3
MTBE	ND	ND	ND	ND	ND	40 (9)	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40 (22)	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40 (5)	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40 (6)	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400 (38)	µg/m3

TIC:

n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3

Dilution Factor

1

1

1

1

1

Surrogate Recoveries:

QC Limits

Dibromofluoromethane	121%	120%	119%	119%	119%	60 - 140
Toluene-d ₈	97%	98%	92%	97%	97%	60 - 140
4-Bromofluorobenzene	99%	101%	99%	104%	103%	60 - 140

E1-111617- E1-111617- E1-111617- E1-111617- E1-111617-
CHECKS CHECKS CHECKS CHECKS CHECKS

ND= Not Detected

J Flag = Estimated Value



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SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Geosyntec Consultants
Client Address: 199 S. Hudson Avenue, Suite 110
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Report date: 11/16/2017
Jones Ref. No.: D-1409
Client Ref. No.: HR1305D

Attn: Mital Desai

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017

Project Address: 777 North Front Street
Burbank, CA

Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	NP-6-40	NP-6-60	NP-6-86	NP-5-15	NP-5-35		
<u>Jones ID:</u>	D-1409-11	D-1409-12	D-1409-13	D-1409-14	D-1409-15	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
Bromodichloromethane	ND	4 J	ND	ND	ND	8 (3)	µg/m3
Bromoform	ND	ND	ND	ND	ND	8 (5)	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8 (5)	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Chloroform	ND	22	ND	14	120	8 (3)	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8 (6)	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dichlorodifluoromethane	ND	329	ND	303	1940	8 (5)	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloroethene	462	502	163	ND	102	8 (5)	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (2)	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8 (4)	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	NP-6-40	NP-6-60	NP-6-86	NP-5-15	NP-5-35		
<u>Jones ID:</u>	D-1409-11	D-1409-12	D-1409-13	D-1409-14	D-1409-15	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Freon 113	21 J	33 J	5 J	42	229	40 (5)	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8 (8)	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8 (3)	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40 (6)	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Styrene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
Tetrachloroethene	5580	4440	5220	6610	20800	8 (3)	µg/m3
Toluene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40 (6)	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1,1-Trichloroethane	ND	13	ND	ND	7 J	8 (4)	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
Trichloroethene	178	678	173	7320	18900	8 (3)	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8 (4)	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8 (6)	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8 (5)	µg/m3
MTBE	ND	ND	ND	ND	ND	40 (9)	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40 (22)	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40 (5)	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40 (6)	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400 (38)	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
<u>Dilution Factor</u>	1	1	1	1	1		
Surrogate Recoveries:						<u>QC Limits</u>	
Dibromofluoromethane	108%	116%	101%	97%	93%	60 - 140	
Toluene-d ₈	95%	96%	97%	85%	81%	60 - 140	
4-Bromofluorobenzene	94%	99%	90%	83%	82%	60 - 140	

E2-111617- E1-111617- E2-111617- D1-111617- D1-111617-
CHECKS CHECKS CHECKS D-1409 D-1409

ND= Not Detected

J Flag = Estimated Value



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Geosyntec Consultants
Client Address: 199 S. Hudson Avenue, Suite 110
Pasadena, CA

Report date: 11/16/2017
Jones Ref. No.: D-1409
Client Ref. No.: HR1305D

Attn: Mital Desai

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017

Project Address: 777 North Front Street
Burbank, CA

Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	NP-5-57	NP-4-13	NP-4-35	NP-4-51	NP-4-83		
<u>Jones ID:</u>	D-1409-16	D-1409-17	D-1409-18	D-1409-19	D-1409-20	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:							
Benzene	7 J	ND	ND	ND	4 J	8 (3)	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
Bromodichloromethane	ND	ND	ND	4 J	ND	8 (3)	µg/m3
Bromoform	ND	ND	ND	ND	ND	8 (5)	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8 (5)	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Chloroform	457	ND	ND	336	1040	8 (3)	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8 (6)	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dichlorodifluoromethane	1070	485	ND	762	ND	8 (5)	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloroethene	205	ND	26	22	61	8 (5)	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (2)	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8 (4)	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	NP-5-57	NP-4-13	NP-4-35	NP-4-51	NP-4-83		
<u>Jones ID:</u>	D-1409-16	D-1409-17	D-1409-18	D-1409-19	D-1409-20	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Freon 113	116	32 J	84	46	71	40 (5)	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8 (8)	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8 (3)	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40 (6)	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Styrene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	5530	124	31	8 (4)	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
Tetrachloroethene	18000	1890000*	1790000*	684000*	781000*	8 (3)	µg/m3
Toluene	5 J	ND	ND	6 J	ND	8 (3)	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40 (6)	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1,1-Trichloroethane	ND	15	ND	ND	ND	8 (4)	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
Trichloroethene	11700	2340	3430	2550	4950	8 (3)	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8 (4)	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8 (6)	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8 (5)	µg/m3
MTBE	ND	ND	ND	ND	ND	40 (9)	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40 (22)	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40 (5)	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40 (6)	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400 (38)	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
<u>Dilution Factor</u>	1	1/250*	1/250*	1/250*	1/250*		
Surrogate Recoveries:						<u>QC Limits</u>	
Dibromofluoromethane	96%	115%	109%	119%	124%	60 - 140	
Toluene-d8	84%	95%	96%	94%	96%	60 - 140	
4-Bromofluorobenzene	83%	101%	95%	98%	90%	60 - 140	
D1-111617- D-1409	E1-111617- CHECKS	E2-111617- CHECKS	E1-111617- CHECKS	E2-111617- CHECKS			

ND= Not Detected

J Flag = Estimated Value



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Geosyntec Consultants
Client Address: 199 S. Hudson Avenue, Suite 110
Pasadena, CA

Report date: 11/16/2017
Jones Ref. No.: D-1409
Client Ref. No.: HR1305D

Attn: Mital Desai

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017

Project Address: 777 North Front Street
Burbank, CA

Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	NP-3-13	NP-3-33	NP-3-53	NP-2-15	NP-2-37		
<u>Jones ID:</u>	D-1409-21	D-1409-22	D-1409-23	D-1409-24	D-1409-25	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
Bromoform	ND	ND	ND	ND	ND	8 (5)	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8 (5)	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Chloroform	83	98	181	29	16	8 (3)	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8 (6)	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dichlorodifluoromethane	208	471	ND	357	ND	8 (5)	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloroethene	ND	14	ND	ND	ND	8 (5)	µg/m3
cis-1,2-Dichloroethene	ND	20	ND	31	ND	8 (3)	µg/m3
trans-1,2-Dichloroethene	10	10	ND	ND	ND	8 (2)	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8 (4)	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	NP-3-13	NP-3-33	NP-3-53	NP-2-15	NP-2-37		
<u>Jones ID:</u>	D-1409-21	D-1409-22	D-1409-23	D-1409-24	D-1409-25	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Freon 113	17 J	37 J	37 J	8 J	41	40 (5)	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8 (8)	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8 (3)	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40 (6)	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Styrene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,1,1,2-Tetrachloroethane	502	1240	587	145	147	8 (4)	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
Tetrachloroethene	5120000*	8030000*	3480000*	1270000*	1450000*	8 (3)	µg/m3
Toluene	ND	20	ND	ND	ND	8 (3)	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40 (6)	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1,1-Trichloroethane	ND	8	ND	ND	ND	8 (4)	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
Trichloroethene	5120	4790	3210	3350	2600	8 (3)	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8 (4)	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8 (6)	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8 (5)	µg/m3
MTBE	ND	ND	ND	ND	ND	40 (9)	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40 (22)	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40 (5)	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40 (6)	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400 (38)	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
<u>Dilution Factor</u>	1/2500*	1/2500*	1/2500*	1/250*	1/250*		
Surrogate Recoveries:						<u>QC Limits</u>	
Dibromofluoromethane	98%	102%	126%	119%	132%	60 - 140	
Toluene-d8	87%	85%	99%	94%	104%	60 - 140	
4-Bromofluorobenzene	82%	76%	86%	101%	90%	60 - 140	
D1-111617- D-1409	D1-111617- D-1409	E2-111617- CHECKS	E1-111617- CHECKS	E2-111617- CHECKS			

ND= Not Detected

J Flag = Estimated Value



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Geosyntec Consultants
Client Address: 199 S. Hudson Avenue, Suite 110
Pasadena, CA

Report date: 11/16/2017
Jones Ref. No.: D-1409
Client Ref. No.: HR1305D

Attn: Mital Desai

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017

Project Address: 777 North Front Street
Burbank, CA

Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	NP-2-51	NP-2-81	NP-1-19	NP-1-19 REP	NP-1-49		
<u>Jones ID:</u>	D-1409-26	D-1409-27	D-1409-28	D-1409-29	D-1409-30	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
Bromodichloromethane	4 J	ND	ND	ND	ND	8 (3)	µg/m3
Bromoform	ND	ND	ND	ND	ND	8 (5)	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8 (5)	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Chloroform	93	109	ND	ND	10	8 (3)	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8 (6)	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dichlorodifluoromethane	ND	ND	79	90	1720	8 (5)	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloroethene	45	129	ND	ND	192	8 (5)	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,2-Dichloroethene	8	ND	ND	ND	ND	8 (2)	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8 (4)	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID:

NP-2-51

NP-2-81

NP-1-19

NP-1-19
REP

NP-1-49

Jones ID:

D-1409-26

D-1409-27

D-1409-28

D-1409-29

D-1409-30

**Practical
Quantitation
Limit (MDL)**

Units

Analytes:

cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Freon 113	141	108	ND	ND	76	40 (5)	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8 (8)	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8 (3)	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40 (6)	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Styrene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,1,1,2-Tetrachloroethane	514	131	ND	ND	ND	8 (4)	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
Tetrachloroethene	3150000*	1570000*	26500	20000	21800	8 (3)	µg/m3
Toluene	10	ND	ND	ND	ND	8 (3)	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40 (6)	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1,1-Trichloroethane	ND	ND	1100	1090	1010	8 (4)	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
Trichloroethene	3990	3380	38	82	54	8 (3)	µg/m3
Trichlorofluoromethane	5 J	ND	ND	ND	5 J	8 (5)	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8 (4)	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8 (6)	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8 (5)	µg/m3
MTBE	ND	ND	ND	ND	ND	40 (9)	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40 (22)	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40 (5)	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40 (6)	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400 (38)	µg/m3

TIC:

n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3

Dilution Factor

1/250*

1/250*

1

1

1

Surrogate Recoveries:

Dibromofluoromethane	118%	131%	114%	114%	116%	60 - 140
Toluene-d8	95%	99%	95%	94%	95%	60 - 140
4-Bromofluorobenzene	97%	89%	90%	88%	102%	60 - 140

E1-111617- E2-111617- E2-111617- E2-111617- E1-111617-
CHECKS CHECKS CHECKS CHECKS CHECKS

ND= Not Detected

J Flag = Estimated Value



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11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Geosyntec Consultants
Client Address: 199 S. Hudson Avenue, Suite 110
Pasadena, CA

Attn: Mital Desai

Project Address: 777 North Front Street
Burbank, CA

Report date: 11/16/2017
Jones Ref. No.: D-1409
Client Ref. No.: HR1305D

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID: NP-1-70 NP-1-85

Jones ID: D-1409-31 D-1409-32

Analytes:

			<u>Practical</u> <u>Quantitation</u> <u>Limit (MDL)</u>	<u>Units</u>
Benzene	ND	ND	8 (3)	µg/m3
Bromobenzene	ND	ND	8 (5)	µg/m3
Bromodichloromethane	6 J	5 J	8 (3)	µg/m3
Bromoform	ND	ND	8 (5)	µg/m3
n-Butylbenzene	ND	ND	8 (4)	µg/m3
sec-Butylbenzene	ND	ND	8 (4)	µg/m3
tert-Butylbenzene	ND	ND	8 (4)	µg/m3
Carbon tetrachloride	ND	ND	8 (5)	µg/m3
Chlorobenzene	ND	ND	8 (4)	µg/m3
Chloroform	21	22	8 (3)	µg/m3
2-Chlorotoluene	ND	ND	8 (4)	µg/m3
4-Chlorotoluene	ND	ND	8 (4)	µg/m3
Dibromochloromethane	ND	ND	8 (4)	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	8 (6)	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	8 (3)	µg/m3
Dibromomethane	ND	ND	8 (3)	µg/m3
1,2-Dichlorobenzene	ND	ND	8 (4)	µg/m3
1,3-Dichlorobenzene	ND	ND	8 (4)	µg/m3
1,4-Dichlorobenzene	ND	ND	8 (3)	µg/m3
Dichlorodifluoromethane	2530	2900	8 (5)	µg/m3
1,1-Dichloroethane	ND	260	8 (4)	µg/m3
1,2-Dichloroethane	ND	ND	8 (5)	µg/m3
1,1-Dichloroethene	443	1090	8 (5)	µg/m3
cis-1,2-Dichloroethene	ND	ND	8 (3)	µg/m3
trans-1,2-Dichloroethene	ND	ND	8 (2)	µg/m3
1,2-Dichloropropane	ND	ND	8 (3)	µg/m3
1,3-Dichloropropane	ND	ND	8 (4)	µg/m3
2,2-Dichloropropane	ND	ND	8 (5)	µg/m3
1,1-Dichloropropene	ND	ND	8 (4)	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID:	NP-1-70	NP-1-85		
Jones ID:	D-1409-31	D-1409-32	Practical Quantitation Limit (MDL)	Units
Analytes:				
cis-1,3-Dichloropropene	ND	ND	8 (3)	µg/m3
trans-1,3-Dichloropropene	ND	ND	8 (3)	µg/m3
Ethylbenzene	ND	ND	8 (4)	µg/m3
Freon 113	98	34 J	40 (5)	µg/m3
Hexachlorobutadiene	ND	ND	8 (8)	µg/m3
Isopropylbenzene	ND	ND	8 (3)	µg/m3
4-Isopropyltoluene	ND	ND	8 (4)	µg/m3
Methylene chloride	ND	ND	8 (3)	µg/m3
Naphthalene	ND	ND	40 (6)	µg/m3
n-Propylbenzene	ND	ND	8 (4)	µg/m3
Styrene	ND	ND	8 (3)	µg/m3
1,1,1,2-Tetrachloroethane	ND	11	8 (4)	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	8 (5)	µg/m3
Tetrachloroethene	13200	46200	8 (3)	µg/m3
Toluene	ND	ND	8 (3)	µg/m3
1,2,3-Trichlorobenzene	ND	ND	40 (6)	µg/m3
1,2,4-Trichlorobenzene	ND	ND	8 (5)	µg/m3
1,1,1-Trichloroethane	455	157	8 (4)	µg/m3
1,1,2-Trichloroethane	ND	ND	8 (4)	µg/m3
Trichloroethene	86	508	8 (3)	µg/m3
Trichlorofluoromethane	ND	ND	8 (5)	µg/m3
1,2,3-Trichloropropane	ND	ND	8 (4)	µg/m3
1,2,4-Trimethylbenzene	ND	ND	8 (5)	µg/m3
1,3,5-Trimethylbenzene	ND	ND	8 (4)	µg/m3
Vinyl chloride	ND	ND	8 (4)	µg/m3
m,p-Xylene	ND	ND	8 (6)	µg/m3
o-Xylene	ND	ND	8 (5)	µg/m3
MTBE	ND	ND	40 (9)	µg/m3
Ethyl-tert-butylether	ND	ND	40 (22)	µg/m3
Di-isopropylether	ND	ND	40 (5)	µg/m3
tert-amylmethylether	ND	ND	40 (6)	µg/m3
tert-Butylalcohol	ND	ND	400 (38)	µg/m3
TIC:				
n-Pentane	ND	ND	400	µg/m3
n-Hexane	ND	ND	400	µg/m3
n-Heptane	ND	ND	400	µg/m3
Dilution Factor	1	1		
Surrogate Recoveries:			QC Limits	
Dibromofluoromethane	118%	118%	60 - 140	
Toluene-d ₈	94%	94%	60 - 140	
4-Bromofluorobenzene	101%	101%	60 - 140	
	E1-111617- CHECKS	E1-111617- CHECKS		

ND= Not Detected

J Flag = Estimated Value



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11007 FOREST PLACE
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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Geosyntec Consultants
Client Address: 199 S. Hudson Avenue, Suite 110
Pasadena, CA

Attn: Mital Desai

Project Address: 777 North Front Street
Burbank, CA

Report date: 11/16/2017
Jones Ref. No.: D-1409
Client Ref. No.: HR1305D

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
<u>Jones ID:</u>	111617- D1MB	111617- D1SB	111617- E1MB	111617- E1SB	111617- E2MB		
Analytes:							
Benzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
Bromoform	ND	ND	ND	ND	ND	8 (5)	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8 (5)	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Chloroform	ND	ND	ND	ND	ND	8 (3)	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8 (6)	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8 (5)	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8 (2)	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8 (4)	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Sample ID:

METHOD SAMPLING METHOD SAMPLING METHOD
BLANK BLANK BLANK BLANK BLANK

Jones ID:

111617-
D1MB

111617-
D1SB

111617-
E1MB

111617-
E1SB

111617-
E2MB

**Practical
Quantitation
Limit (MDL)**

Units

Analytes:

cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Freon 113	ND	ND	ND	ND	ND	40 (5)	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	8 (8)	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8 (3)	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8 (3)	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40 (6)	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Styrene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Toluene	ND	ND	ND	ND	ND	8 (3)	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40 (6)	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8 (4)	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8 (3)	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8 (4)	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8 (5)	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8 (4)	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8 (4)	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8 (6)	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8 (5)	µg/m3
MTBE	ND	ND	ND	ND	ND	40 (9)	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40 (22)	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40 (5)	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40 (6)	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400 (38)	µg/m3

TIC:

n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3

Dilution Factor

1 1 1 1 1

Surrogate Recoveries:

QC Limits

Dibromofluoromethane	96%	95%	118%	120%	109%	60 - 140
Toluene-d8	85%	87%	99%	98%	96%	60 - 140
4-Bromofluorobenzene	83%	133%	100%	98%	91%	60 - 140

D1-111617- D1-111617- E1-111617- E1-111617- E2-111617-
D-1409 D-1409 CHECKS CHECKS CHECKS

ND= Not Detected

J Flag = Estimated Value



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11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Geosyntec Consultants
Client Address: 199 S. Hudson Avenue, Suite 110
Pasadena, CA

Attn: Mital Desai

Project Address: 777 North Front Street
Burbank, CA

Report date: 11/16/2017
Jones Ref. No.: D-1409
Client Ref. No.: HR1305D

Date Sampled: 11/16/2017
Date Received: 11/16/2017
Date Analyzed: 11/16/2017
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SAMPLING BLANK	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Jones ID:	111617- E2SB		
Analytes:			
Benzene	ND	8 (3)	µg/m3
Bromobenzene	ND	8 (5)	µg/m3
Bromodichloromethane	ND	8 (3)	µg/m3
Bromoform	ND	8 (5)	µg/m3
n-Butylbenzene	ND	8 (4)	µg/m3
sec-Butylbenzene	ND	8 (4)	µg/m3
tert-Butylbenzene	ND	8 (4)	µg/m3
Carbon tetrachloride	ND	8 (5)	µg/m3
Chlorobenzene	ND	8 (4)	µg/m3
Chloroform	ND	8 (3)	µg/m3
2-Chlorotoluene	ND	8 (4)	µg/m3
4-Chlorotoluene	ND	8 (4)	µg/m3
Dibromochloromethane	ND	8 (4)	µg/m3
1,2-Dibromo-3-chloropropane	ND	8 (6)	µg/m3
1,2-Dibromoethane (EDB)	ND	8 (3)	µg/m3
Dibromomethane	ND	8 (3)	µg/m3
1,2-Dichlorobenzene	ND	8 (4)	µg/m3
1,3-Dichlorobenzene	ND	8 (4)	µg/m3
1,4-Dichlorobenzene	ND	8 (3)	µg/m3
Dichlorodifluoromethane	ND	8 (5)	µg/m3
1,1-Dichloroethane	ND	8 (4)	µg/m3
1,2-Dichloroethane	ND	8 (5)	µg/m3
1,1-Dichloroethene	ND	8 (5)	µg/m3
cis-1,2-Dichloroethene	ND	8 (3)	µg/m3
trans-1,2-Dichloroethene	ND	8 (2)	µg/m3
1,2-Dichloropropane	ND	8 (3)	µg/m3
1,3-Dichloropropane	ND	8 (4)	µg/m3
2,2-Dichloropropane	ND	8 (5)	µg/m3
1,1-Dichloropropene	ND	8 (4)	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

<u>Sample ID:</u>	SAMPLING BLANK		
<u>Jones ID:</u>	111617- E2SB	<u>Practical Quantitation Limit (MDL)</u>	<u>Units</u>
Analytes:			
cis-1,3-Dichloropropene	ND	8 (3)	µg/m3
trans-1,3-Dichloropropene	ND	8 (3)	µg/m3
Ethylbenzene	ND	8 (4)	µg/m3
Freon 113	ND	40 (5)	µg/m3
Hexachlorobutadiene	ND	8 (8)	µg/m3
Isopropylbenzene	ND	8 (3)	µg/m3
4-Isopropyltoluene	ND	8 (4)	µg/m3
Methylene chloride	ND	8 (3)	µg/m3
Naphthalene	ND	40 (6)	µg/m3
n-Propylbenzene	ND	8 (4)	µg/m3
Styrene	ND	8 (3)	µg/m3
1,1,1,2-Tetrachloroethane	ND	8 (4)	µg/m3
1,1,2,2-Tetrachloroethane	ND	8 (5)	µg/m3
Tetrachloroethene	ND	8 (3)	µg/m3
Toluene	ND	8 (3)	µg/m3
1,2,3-Trichlorobenzene	ND	40 (6)	µg/m3
1,2,4-Trichlorobenzene	ND	8 (5)	µg/m3
1,1,1-Trichloroethane	ND	8 (4)	µg/m3
1,1,2-Trichloroethane	ND	8 (4)	µg/m3
Trichloroethene	ND	8 (3)	µg/m3
Trichlorofluoromethane	ND	8 (5)	µg/m3
1,2,3-Trichloropropane	ND	8 (4)	µg/m3
1,2,4-Trimethylbenzene	ND	8 (5)	µg/m3
1,3,5-Trimethylbenzene	ND	8 (4)	µg/m3
Vinyl chloride	ND	8 (4)	µg/m3
m,p-Xylene	ND	8 (6)	µg/m3
o-Xylene	ND	8 (5)	µg/m3
MTBE	ND	40 (9)	µg/m3
Ethyl-tert-butylether	ND	40 (22)	µg/m3
Di-isopropylether	ND	40 (5)	µg/m3
tert-amylmethylether	ND	40 (6)	µg/m3
tert-Butylalcohol	ND	400 (38)	µg/m3
TIC:			
n-Pentane	ND	400	µg/m3
n-Hexane	ND	400	µg/m3
n-Heptane	ND	400	µg/m3
<u>Dilution Factor</u>	1		
<u>Surrogate Recoveries:</u>		<u>QC Limits</u>	
Dibromofluoromethane	110%	60 - 140	
Toluene-d8	95%	60 - 140	
4-Bromofluorobenzene	96%	60 - 140	

E2-111617-
CHECKS

ND= Not Detected

J Flag = Estimated Value



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805-399-0060

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Geosyntec Consultants	Report date:	11/16/2017
Client Address:	199 S. Hudson Avenue, Suite 110 Pasadena, CA	Jones Ref. No.:	D-1409
		Client Ref. No.:	HR1305D
Attn:	Mital Desai	Date Sampled:	11/16/2017
		Date Received:	11/16/2017
		Date Analyzed:	11/16/2017
Project Address:	777 North Front Street Burbank, CA	Physical State:	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Batch ID:	D1-111617-D-1409					
Jones ID:	111617-D1LCS	111617-D1LCSD			111617-D1CCV	
	LCS	LCSD		Acceptability		Acceptability
<u>Parameter</u>	Recovery (%)	Recovery (%)	<u>RPD</u>	Range (%)	<u>CCV</u>	Range (%)
Vinyl chloride	73%	74%	2.0%	70 - 130	69%	80 - 120
1,1-Dichloroethene	96%	99%	3.3%	70 - 130	97%	80 - 120
Cis-1,2-Dichloroethene	96%	99%	3.0%	70 - 130	88%	80 - 120
1,1,1-Trichloroethane	91%	90%	0.6%	70 - 130	86%	80 - 120
Benzene	107%	110%	3.1%	70 - 130	86%	80 - 120
Trichloroethene	115%	113%	1.8%	70 - 130	99%	80 - 120
Toluene	104%	108%	4.2%	70 - 130	100%	80 - 120
Tetrachloroethene	106%	105%	1.5%	70 - 130	102%	80 - 120
Chlorobenzene	110%	119%	7.8%	70 - 130	100%	80 - 120
Ethylbenzene	115%	122%	6.0%	70 - 130	107%	80 - 120
1,2,4 Trimethylbenzene	121%	124%	3.0%	70 - 130	113%	80 - 120
<u>Surrogate Recovery:</u>						
Dibromofluoromethane	95%	97%		60 - 140	95%	60 - 140
Toluene-d ₈	85%	88%		60 - 140	91%	60 - 140
4-Bromofluorobenzene	87%	91%		60 - 140	95%	60 - 140

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample Duplicate

CCV = Continuing Calibration Verification

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



714-449-9937
562-646-1611
805-399-0060

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
WWW.JONESENV.COM

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Geosyntec Consultants	Report date:	11/16/2017
Client Address:	199 S. Hudson Avenue, Suite 110 Pasadena, CA	Jones Ref. No.:	D-1409
		Client Ref. No.:	HR1305D
Attn:	Mital Desai	Date Sampled:	11/16/2017
		Date Received:	11/16/2017
		Date Analyzed:	11/16/2017
Project Address:	777 North Front Street Burbank, CA	Physical State:	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Batch ID:	E1-111617-CHECKS					
Jones ID:	111617-E1LCS	111617-E1LCSD			111617-E1CCV	
	LCS	LCSD		Acceptability		Acceptability
<u>Parameter</u>	Recovery (%)	Recovery (%)	<u>RPD</u>	Range (%)	<u>CCV</u>	Range (%)
Vinyl chloride	80%	81%	0.4%	70 - 130	101%	80 - 120
1,1-Dichloroethene	48%	54%	11.7%	70 - 130	82%	80 - 120
Cis-1,2-Dichloroethene	123%	126%	2.0%	70 - 130	90%	80 - 120
1,1,1-Trichloroethane	116%	115%	0.6%	70 - 130	118%	80 - 120
Benzene	119%	122%	2.4%	70 - 130	120%	80 - 120
Trichloroethene	123%	121%	2.1%	70 - 130	130%	80 - 120
Toluene	134%	133%	0.8%	70 - 130	115%	80 - 120
Tetrachloroethene	130%	128%	1.8%	70 - 130	108%	80 - 120
Chlorobenzene	136%	131%	3.7%	70 - 130	122%	80 - 120
Ethylbenzene	135%	129%	4.2%	70 - 130	112%	80 - 120
1,2,4 Trimethylbenzene	146%	129%	12.0%	70 - 130	123%	80 - 120
<u>Surrogate Recovery:</u>						
Dibromofluoromethane	116%	116%		60 - 140	119%	60 - 140
Toluene-d ₈	95%	95%		60 - 140	94%	60 - 140
4-Bromofluorobenzene	104%	102%		60 - 140	101%	60 - 140

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample Duplicate

CCV = Continuing Calibration Verification

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



714-449-9937
562-646-1611
805-399-0060

11007 FOREST PLACE
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WWW.JONESENV.COM

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Geosyntec Consultants	Report date:	11/16/2017
Client Address:	199 S. Hudson Avenue, Suite 110 Pasadena, CA	Jones Ref. No.:	D-1409
		Client Ref. No.:	HR1305D
Attn:	Mital Desai	Date Sampled:	11/16/2017
		Date Received:	11/16/2017
		Date Analyzed:	11/16/2017
Project Address:	777 North Front Street Burbank, CA	Physical State:	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates

Batch ID:	E2-111617-CHECKS					
Jones ID:	111617-E2LCS	111617-E2LCSD		111617-E2CCV		
	LCS	LCSD		Acceptability		Acceptability
<u>Parameter</u>	Recovery (%)	Recovery (%)	<u>RPD</u>	Range (%)	<u>CCV</u>	Range (%)
Vinyl chloride	87%	105%	19.2%	70 - 130	112%	80 - 120
1,1-Dichloroethene	133%	126%	5.8%	70 - 130	104%	80 - 120
Cis-1,2-Dichloroethene	134%	139%	3.6%	70 - 130	86%	80 - 120
1,1,1-Trichloroethane	124%	143%	14.4%	70 - 130	127%	80 - 120
Benzene	110%	129%	16.4%	70 - 130	110%	80 - 120
Trichloroethene	118%	134%	13.0%	70 - 130	115%	80 - 120
Toluene	115%	128%	10.7%	70 - 130	110%	80 - 120
Tetrachloroethene	131%	145%	10.4%	70 - 130	115%	80 - 120
Chlorobenzene	116%	132%	12.5%	70 - 130	106%	80 - 120
Ethylbenzene	119%	135%	12.5%	70 - 130	104%	80 - 120
1,2,4 Trimethylbenzene	115%	136%	16.1%	70 - 130	110%	80 - 120
<u>Surrogate Recovery:</u>						
Dibromofluoromethane	105%	117%		60 - 140	103%	60 - 140
Toluene-d ₈	95%	97%		60 - 140	94%	60 - 140
4-Bromofluorobenzene	94%	96%		60 - 140	92%	60 - 140

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample Duplicate

CCV = Continuing Calibration Verification

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



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Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
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Soil-Gas Chain-of-Custody Record

Client
Geosyntec Consultants

Project Name
777 N. Front Street Supp Inv

Project Address
777 N. Front Street

Burbank, CA

Email

Phone
818-808-6189

Report To
Mital Desai

Sampler
SEJ/AO

Date
11/16/2017

Client Project #
HR1305D

Purge Number:
☐ 1P ☐ 3P ☐ 7P ☐ 10P

Shut-In Test: Y / N

Report Options
EDD _____
EDF* - 10% Surcharge _____

*Global ID _____

LAB USE ONLY

Jones Project #
D-1409

Page
1 of **5**

Sample Container:

Glass Gas Tight Syringes

If different than above, see Notes.

Turn Around Requested

- ☐ Immediate Attention
☐ Rush 24 Hours
☐ Rush 48 Hours
☐ Rush 72 Hours
☐ Normal
☐ Mobile Lab

Tracer

- ☐ n-pentane
☒ n-hexane
☐ n-heptane
☐ Helium
☐ 1,1-DFA
☐ n-propane

Analysis Requested

Soil Gas (SG), Air (A), Material (M)	EPA 8260	Magnehelic Vacuum (in/H ₂ O)	Number of Containers
SG	X	<2	2

Reporting Limits Requested

- ☐ Commercial ☒ Residential

Units

ug/m³

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	EPA 8260	Magnehelic Vacuum (in/H ₂ O)	Number of Containers	Notes & Special Instructions
NP-8-17	3	72300	11/16/17	7:44	7:55	D-1409-01	4000	BIGPUMP.2	M100-111	SG	X	<2	2	
NP-8-37	3	77500	11/16/17	8:05	8:16	D-1409-02	4000	BIGPUMP.2	M100-111	SG	X	<2	2	
NP-8-37 REP	3	77500	11/16/17	8:11	8:33	D-1409-03	4000	BIGPUMP.2	M100-111	SG	X	<2	2	
NP-8-57	3	55400	11/16/17	8:42	8:52	D-1409-04	4000	BIGPUMP.2	M100-111	SG	X	<2	2	
NP-8-80	3	61400	11/16/17	9:04	9:16	D-1409-05	4000	BIGPUMP.2	M100-111	SG	X	<2	2	
NP-7-17	3	72500	11/16/17	7:58	8:02	D-1409-06	4000	SKC.1	118012	SG	X	<2	2	
NP-7-17 REP	3	72500	11/16/17	8:14	8:19	D-1409-07	4000	SKC.1	118012	SG	X	<2	2	
NP-7-35	3	49900	11/16/17	7:43	7:54	D-1409-08	4000	SKC.1	M100-109	SG	X	<2	2	
NP-7-53	3	54500	11/16/17	8:33	8:46	D-1409-09	4000	SKC.1	M100-109	SG	X	<2	2	
NP-6-15	3	71800	11/16/17	9:01	9:15	D-1409-10	4000	SKC.1	118012	SG	X	<2	2	

Relinquished By (Signature)
Goodwin Wharton

Printed Name
Goodwin Wharton

Company
Geosyntec

Date
11/16/17

Time
14:05

Relinquished By (Signature)

Printed Name

Company

Date

Time

Received By (Signature)
JEL

Printed Name

Company
JEL

Date
11/16/17

Time
14:05

Received By Laboratory (Signature)

Printed Name

Company

Date

Time

20 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.



11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client
Geosyntec Consultants

Project Name
777 N. Front Street Supp Inv

Project Address
777 N. Front Street

Burbank, CA

Email

Phone
818-808-6189

Date
11/16/2017

Client Project #
HR1305D

Purge Number:
☐ 1P ☒ 3P ☐ 7P ☐ 10P

Shut-In Test: **Y** / N

Report Options
EDD _____
EDF* - 10% Surcharge _____

*Global ID _____

LAB USE ONLY

Jones Project #
D-1409

Page
2 of **5**

Sample Container:

Glass Gas Tight Syringes

If different than above, see Notes.

Report To
Mital Desai

Sampler
SEJ/AO

Turn Around Requested

- ☐ Immediate Attention
☐ Rush 24 Hours
☐ Rush 48 Hours
☐ Rush 72 Hours
☐ Normal
☒ Mobile Lab

Tracer

- ☐ n-pentane
☒ n-hexane
☐ n-heptane
☐ Helium
☐ 1,1-DFA
☐ **n-propane**

Analysis Requested

Reporting Limits Requested

- ☐ Commercial ☒ Residential

Units

µg/m³

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	EPA 8260	Magnehelic Vacuum (in/H ₂ O)	Number of Containers	Notes & Special Instructions
NP-6-40	3	71800	11/16/17	9:03	9:07	D-1409-11	4000	SKC.1	M100-109	SG	X	<2	2	
NP-6-60	3	56200	11/16/17	9:26	9:30	D-1409-12	4000	SKC.1	118012	SG	X	<2	2	
NP-6-86	3	45100	11/16/17	9:28	9:31	D-1409-13	4000	SKC.1	M100-109	SG	X	<2	2	
NP-5-15	3	71900	11/16/17	9:34	9:46	D-1409-14	4000	BIGPUMP.2	M100-111	SG	X	<2	2	
NP-5-35	3	77100	11/16/17	9:55	10:07	D-1409-15	4000	BIGPUMP.2	M100-111	SG	X	<2	2	
NP-5-57	3	55500	11/16/17	10:21	10:33	D-1409-16	4000	BIGPUMP.2	M100-111	SG	X	<2	2	
NP-4-13	3	71400	11/16/17	9:57	10:09	D-1409-17	4000	SKC.1	118012	SG	X	<2	2	
NP-4-13 DIL			11/16/17	10:22	10:37	-	4000	SKC.1	M100-109	SG	X	<2	2	
NP-4-35	3	77100	11/16/17	10:00	10:11	D-1409-18	4000	SKC.1	M100-109	SG	X	<2	2	
NP-4-35 DIL			11/16/17	10:28	10:40	-	4000	SKC.1	M100-109	SG	X	<2	2	

Relinquished By (Signature)
Goodwin Wharton

Printed Name
Goodwin Wharton

Company
Geosyntec

Date
11/16/17

Time
14:05

Received By (Signature)
[Signature]

Printed Name
JFC

Company
JFC

Date
11/16/17

Time
14:05

Relinquished By (Signature)

Printed Name

Company

Date

Time

Received By Laboratory (Signature)

Printed Name

Company

Date

Time

Client signature on this Chain of Custody form constitutes acknowledgment that the above analyses have been requested, and the information provided herein is correct and accurate.



11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client Geosyntec Consultants						Date 11/16/2017		Purge Number: ☐ 1P ☐ 3P ☐ 7P ☐ 10P			Report Options EDD _____ EDF* - 10% Surcharge _____			LAB USE ONLY Jones Project # D-1409																									
Project Name 777 N. Front Street Supp Inv						Client Project # HR1305D		Shut-In Test: Y / N			*Global ID _____																												
Project Address 777 N. Front Street																																							
Burbank, CA																																							
Email																																							
Phone 818-808-6189																																							
Report To Mital Desai						Sampler SEJ/AO																																	
Turn Around Requested ☐ Immediate Attention ☐ Rush 24 Hours ☐ Rush 48 Hours ☐ Rush 72 Hours ☐ Normal ☒ Mobile Lab						Tracer ☐ n-pentane ☒ n-hexane ☐ n-heptane ☐ Helium ☐ 1,1-DFA ☐ n-Pentadecane		Analysis Requested																															
Reporting Limits Requested ☐ Commercial ☒ Residential						Units µg/m ³																																	
Sample ID						Purge Number		Purge Volume (mL)		Date		Sample Collection Time		Sample Analysis Time		Laboratory Sample ID		Purge Rate (mL/min)		Pump Used		Magnehelic		Sample Matrix: Soil Gas (SG), Air (A), Material (M)		EPA 8260		Magnehelic Vacuum (In/H₂O)		Number of Containers		Notes & Special Instructions							
NP-4-51						3		71200		11/16/17		10:58		11:12		D-1409-19		4000		SKC.1		M100-109		SG		X		<2		2									
NP-4-51 DIL										11/16/17		11:32		11:47		-		4000		SKC.1		M100-109		SG		X		<2		2									
NP-4-83						3		49100		11/16/17		11:00		11:14		D-1409-20		2000		SKC.1		118012		SG		X		<2		2									
NP-4-83 DIL										11/16/17		11:31		11:48		-		2000		SKC.1		118012		SG		X		<2		2									
NP-3-13						3		54000		11/16/17		11:00		11:04		D-1409-21		4000		BIGPUMP.2		M100-111		SG		X		<2		2									
NP-3-13 DIL										11/16/17		11:01		11:22		-		4000		BIGPUMP.2		M100-111		SG		X		<2		2									
NP-3-33						3		49100		11/16/17		13:10		13:21		D-1409-22		2000		BIGPUMP.2		M100-111		SG		X		<2		2									
NP-3-33 DIL										11/16/17		13:27		13:39		-		2000		BIGPUMP.2		M100-111		SG		X		<2		2									
NP-3-53						3		54300		11/16/17		13:03		13:15		D-1409-23		2000		BIGPUMP.2		M100-111		SG		X		<2		2									
NP-3-53 DIL										11/16/17		12:44		12:56		-		2000		BIGPUMP.2		M100-111		SG		X		<2		2									
Relinquished By (Signature) Doodman Wharton						Printed Name Doodman Wharton						Received By (Signature) [Signature]						Printed Name [Signature]						20		Total Number of Containers													
Company Geosyntec						Date 11/16/17						Time 14:05						Company JRI						Date 11/16/17						Time 14:05						Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.			
Relinquished By (Signature)						Printed Name						Received By Laboratory (Signature)						Printed Name																					
Company						Date						Time						Company						Date						Time									



11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client
Geosyntec Consultants

Project Name
777 N. Front Street Supp Inv

Project Address
777 N. Front Street

Burbank, CA

Email

Phone
818-808-6189

Report To
Mital Desai

Sampler
SEJ/AO

Date
11/16/2017

Client Project #
HR1305D

Purge Number:
☐ 1P ☐ 3P ☐ 7P ☐ 10P

Shut-In Test: Y / N

Report Options
EDD _____
EDF* - 10% Surcharge _____

*Global ID _____

LAB USE ONLY

Jones Project #

D-1409

Page

4 of 5

Sample Container:

Glass Gas Tight Syringes

If different than above, see Notes.

Turn Around Requested

- ☐ Immediate Attention
☐ Rush 24 Hours
☐ Rush 48 Hours
☐ Rush 72 Hours
☐ Normal
☒ Mobile Lab

Tracer

- ☐ n-pentane
☒ n-hexane
☐ n-heptane
☐ Helium
☐ 1,1-DFA
☐ n-Propane

Analysis Requested

Sample Matrix:	Soil Gas (SG)	Air (A)	Material (M)	EPA 8260	Magnehelic Vacuum (in/H ₂ O)	Number of Containers

Reporting Limits Requested

- ☐ Commercial ☒ Residential

Units

ug/m³

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix:	Soil Gas (SG)	Air (A)	Material (M)	EPA 8260	Magnehelic Vacuum (in/H ₂ O)	Number of Containers	Notes & Special Instructions
NP-2-15	3	71800	11/16/17	10:44	10:55	D-1409-24	4000	SKC.1	M100-109	SG	X				<2	2	
NP-2-15 DIL			11/16/17	11:19	11:30	-	4000	SLC.1	M100-109	SG	X				<2	2	
NP-2-37	3	77500	11/16/17	10:46	10:57	D-1409-25	4000	SKC.1	118012	SG	X				<2	2	
NP-2-37 DIL			11/16/17	11:04	11:31	-	4000	SKC.1	118012	SG	X				<2	2	
NP-2-51	3	53900	11/16/17	11:51	12:05	D-1409-26	2000	SKC.1	M100-109	SG	X				<2	2	
NP-2-51 DIL			11/16/17	12:10	12:22	-	2000	SKC.1	M100-109	SG	X				<2	2	
NP-2-81	3	61700	11/16/17	11:50	12:05	D-1409-27	2000	SKC.1	118012	SG	X				<2	2	
NP-2-81 DIL			11/16/17	12:10	12:22	-	2000	SKC.1	118012	SG	X				<2	2	
NP-1-19	3	72800	11/16/17	12:27	12:39	D-1409-28	4000	SKC.1	M100-109	SG	X				<2	2	
NP-1-19 REP	3	72800	11/16/17	12:44	12:56	D-1409-29	4000	SKC.1	M100-109	SG	X				<2	2	

Relinquished By (Signature)
Goodwin Wharton

Printed Name
Goodwin Wharton

Company
Geosyntec

Date
11/16/17

Time
14:05

Received By (Signature)
JRL

Printed Name
JRL

Company
JRL

Date
11/16/17

Time
14:05

Relinquished By (Signature)

Printed Name

Company

Date

Time

Received By Laboratory (Signature)

Printed Name

Company

Date

Time

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.

20 Total Number of Containers



11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client Geosyntec Consultants						Date 11/16/2017		Purge Number: ☐ 1P ☒ 3P ☐ 7P ☐ 10P				Report Options EDD _____ EDF* - 10% Surcharge _____				LAB USE ONLY Jones Project # D-1409																																																																																																					
Project Name 777 N. Front Street Supp Inv						Client Project # HR1305D		Shut-In Test: (Y) N				*Global ID _____																																																																																																									
Project Address 777 N. Front Street						Turn Around Requested ☐ Immediate Attention ☐ Rush 24 Hours ☐ Rush 48 Hours ☐ Rush 72 Hours ☐ Normal ☒ Mobile Lab		Tracer ☐ n-pentane ☒ n-hexane ☐ n-heptane ☐ Helium ☐ 1,1-DFA ☐ n-Propanol		Analysis Requested								Page 5 of 5																																																																																																			
Burbank, CA										<table border="1"><thead><tr><th>Sample Matrix:</th><th>Soil Gas (SG)</th><th>Air (A)</th><th>Material (M)</th><th>EPA 8260</th><th>Magnehelic Vacuum (in/H₂O)</th><th>Number of Containers</th></tr></thead><tbody><tr><td>SG</td><td>X</td><td></td><td></td><td></td><td><2</td><td>2</td></tr><tr><td>SG</td><td>X</td><td></td><td></td><td></td><td><2</td><td>2</td></tr><tr><td>SG</td><td>X</td><td></td><td></td><td></td><td><2</td><td>2</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>								Sample Matrix:	Soil Gas (SG)	Air (A)	Material (M)	EPA 8260	Magnehelic Vacuum (in/H ₂ O)	Number of Containers	SG	X				<2	2	SG	X				<2	2	SG	X				<2	2																																																																							Sample Container: Glass Gas Tight Syringes If different than above, see Notes.	
Sample Matrix:	Soil Gas (SG)	Air (A)	Material (M)	EPA 8260	Magnehelic Vacuum (in/H ₂ O)													Number of Containers																																																																																																			
SG	X				<2	2																																																																																																															
SG	X				<2	2																																																																																																															
SG	X				<2	2																																																																																																															
Email						Reporting Limits Requested ☐ Commercial ☒ Residential		Units mg/m ³		Notes & Special Instructions																																																																																																											
Phone 818-808-6189																																																																																																																					
Report To Mital Desai						Sampler SEJ/AO																																																																																																															
Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix:	Soil Gas (SG)	Air (A)	Material (M)	EPA 8260	Magnehelic Vacuum (in/H ₂ O)	Number of Containers	Notes & Special Instructions																																																																																																				
NP-1-49	3	80600	11/16/17	12:28	12:40	D-1409-30	4000	SKC.1	M100-109	SG	X				<2	2																																																																																																					
NP-1-70	3	58800	11/16/17	12:46	12:58	D-1409-31	2000	SKC.1	118012	SG	X				<2	2																																																																																																					
NP-1-85	3	57900	11/16/17	13:05	13:16	D-1409-32	2000	SKC.1	M100-109	SG	X				<2	2																																																																																																					
Relinquished By (Signature) <i>Goodwin Wharton</i>						Printed Name Goodwin Wharton		Received By (Signature) <i>[Signature]</i>						Printed Name		6 Total Number of Containers																																																																																																					
Company Geosyntec						Date 11/16/17		Time 14:05		Company JKE						Date 11/16/17		Time 14:05																																																																																																			
Relinquished By (Signature)						Printed Name		Received By Laboratory (Signature)						Printed Name		Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.																																																																																																					
Company						Date		Time		Company								Date		Time																																																																																																	