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June 28, 2011

241.082.02.002

Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Attention: Mr. Mark Detterman

Transmittal
Results of Soil and Groundwater Investigation,
and Request for Case Closure
Former Lerer Brothers Transmission
6340 Christie Avenue
Fuel Leak Case No. RO0000057
Geotracker Global ID T0600191821

RECEIVED

9:21 am, Jul 01, 2011 Alameda County Environmental Health

Dear Mr. Detterman:

Submitted herewith for your review is the document: Results of Soil and Groundwater Investigation, and Request for Case Closure, 6340 Christie Avenue, prepared by PES Environmental, Inc.

I declare, under penalty of perjury, that the information and recommendations contained in the attached document are true and correct to the best of my knowledge.

Very truly yours,

Rockwood Christie LLC

Denise Pinkston

Authorized Representative

Email: dpinkston@tmgpartners.com

cc: Robert Creps (PES Environmental)

William Mast (PES Environmental)

Nicholas Targ, Esq. (Holland & Knight)



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Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Attention: Mr. Mark Detterman, P.G.

Subject: Results of Soil and Groundwater Investigation,

and Request for Case Closure

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6340 Christie Avenue

Fuel Leak Case No. RO0000057 Geotracker Global ID T0600191821

Dear Mr. Detterman:

This *Results of Soil and Groundwater Investigation, and Recommendation for Case Closure* (Report) has been prepared by PES Environmental, Inc. (PES) on behalf of Rockwood Christie LLC (Rockwood Christie), the owner of the property located at 6340 Christie Avenue, in Emeryville, California (the site; Plate 1). This Report provides a summary and discussion of the results of soil and groundwater investigation in the vicinity of the former underground storage tank (UST) removed in 1988 from the subject property. The investigation results presented herein are a subset of a broader scale investigation of the 6340 and 6390 Christie Avenue properties performed as a preliminary step of site construction and redevelopment.

Specifically, the recent March 2011 site-wide investigation was conducted in accordance with the: (1) Final Remediation Work Plan¹ (RWP) that was approved by the City of Emeryville on February 1, 2011; and (2) Work Plan, Pre-Excavation Soil and Groundwater Investigation and Preliminary Soil Characterization, Proposed 64th and Christie Residential Building, 64th Street & Christie Avenue, Emeryville, California, dated January 5, 2011. The City of Emeryville provides lead agency oversight for the environmental investigation and remediation process described in the RWP, as set forth in the May 1996 Memorandum of Understanding between it, the Regional Water Quality Control Board, and the Department of Toxic Substances Control, as amended on December 22, 1998.

This Report has been prepared and organized to summarize relevant information from the site-wide investigation to respond to issues raised in letters from Alameda County Environmental Health (ACEH) to Rockwood Christie, dated April 3, 2009, and to the California State Water Resources Control Board (SWRCB), dated January 28, 2011. Copies of these and other pertinent correspondences are provided in Appendix A.

¹ PES Environmental, Inc. 2011. Final Remediation Work Plan, Proposed 64th and Christie Residential Building, 64th Street & Christie Avenue, Emeryville, California. February 3.

BACKGROUND INFORMATION

The proposed 64th and Christie Residential Building redevelopment covers two assessor's parcels (49-1492-8 [6340 Christie Avenue, the site], and 49-1492-6-1 [6390 Christie Avenue]. Construction of the project will entail excavating soil over the entire footprint of both parcels to depths ranging from 11 to 15 feet below ground surface (bgs)². A site development/grading plan is provided in Appendix B. Additional soil excavation will be performed around the perimeter of the building for the purpose of landscaping and sidewalks. At the southern property boundary near the former UST, additional soil excavation will occur for landscaping and to place structural soil at the building perimeter and beneath a paved sidewalk (refer to grading plan). This excavation will extend about 12.5 feet on to the adjacent property, and will be approximately 4 feet in depth for nearly the full width of the southern building perimeter.

The 2,000-gallon gasoline UST was removed from the site in 1988. Little documentation is available about the removal, and no samples were reportedly collected from the tank excavation. Various investigations were performed at the site between 1998 and 2003 by Aqua Science Engineers, Inc. (ASE) to evaluate impacts from the former UST. Additional sampling was conducted in 2004 by PES as part of environmental due diligence during Rockwood Christie's acquisition of the property. The results of these investigations indicated the sporadic presence of heavy-fraction petroleum hydrocarbons (i.e., diesel and motor oil), light-fraction petroleum hydrocarbons (gasoline and its constituents), and metals (primarily lead) in the subsurface³. Some of the detected chemicals appeared to be attributable to residual contamination associated with the former gasoline underground storage tank at the southeast corner of the property. Other chemicals appear to be related to fill placed at the site when the area was reclaimed from San Francisco Bay in the 1930s to 1940s, or to regional contamination associated with offsite sources.

The objectives of the soil and groundwater investigation conducted in March 2011 were to: (1) collect additional soil samples to provide current data to facilitate estimation of likely costs associated with soil management during site redevelopment (i.e., excavation and construction, and soil disposal activities), as well as provide data that aid in delineation of residual petroleum hydrocarbon impacts to soil in the vicinity of the former UST; and (2) collect groundwater data to evaluate current conditions in shallow groundwater. The results of the March 2011 investigation are documented in the report: Results of Pre-Excavation Investigation and Preliminary Soil Characterization, Proposed 64th and Christie Residential Building, 64th Street & Christie Avenue, Emeryville, California, dated June 2, 2011. A copy of this report,

² In general, the excavation will be deeper (15 feet bgs) in the northern and southern portions of the building footprint, and shallower (11 feet bgs) in the center along an east-west axis. The excavation will extend to about 15 feet bgs at the former underground tank location.

³ PES Environmental, Inc. *Phase I Environmental Site Assessment, 6340 Christie Avenue, Emeryville, California.* September 19, 2008.

including details about sampling methods and site-wide results, is provided on CD-ROM in Appendix C.

For illustrative purposes, all of the soil and groundwater sampling locations during all phases of investigation at the site are shown on Plate 2. The remainder of this Report focuses on site conditions pertaining to the former tank.

SOURCE AREA DELINEATION AND REMOVAL UNDER APPROVED RWP

Historical investigations conducted in 1998 and 1999 by ASE at the former UST identified up to 1,400 milligrams per kilogram (mg/kg) total petroleum hydrocarbons quantified as gasoline (TPHg), 3,600 mg/kg TPH quantified as motor oil (TPHmo), and 0.011 mg/kg benzene in soil at depths ranging up to 7 feet bgs. The vertical extent of soil affected with petroleum hydrocarbons was not defined at that time.

During the recent March 2011 investigation, eight soil borings (SB-24 through SB-31) were advanced in the general vicinity of the former tank (i.e., the source area). Five of these borings (SB-26, and SB-28 through SB-31) were advanced to 20 feet bgs⁴. Boring SB-29 was placed at the estimated location of the former tank. Samples were collected at four depth intervals from each boring (approximately 1.5 to 2.5 feet bgs, 6.5 to 8.5 feet bgs, 12.5 feet bgs, and 15.5 to 20 feet bgs) and analyzed for TPH quantified as diesel (TPHd), TPHmo, TPHg and benzene, toluene, ethylbenzene, and xylenes (BTEX).

The analytical data from the recent soil borings in the source area are presented in Table 1 and shown on Plate 3. A summary is provided below:

- TPHg Detected at concentrations ranging from 0.34 mg/kg (SB-28-1.5) to 9,700 mg/kg (SB-29-7.5). Samples from 2.5 to 12.5 feet bgs from borings SB-24, SB-29, SB-30, and SB-31, and the sample from 16 feet bgs at SB-31 exceeded the Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) of 83 mg/kg⁵. With the exception of the latter sample, soil represented by these samples will be removed during site excavation as part of redevelopment and construction activities (refer to the RWP);
- Benzene Detected in three samples from 1.5 to 12.5 feet bgs at concentrations ranging from 15 to 1,700 micrograms per kilogram (μ g/kg). Benzene was not detected

⁴ Borings SB-24, SB-25, SB-27, and SB-32 were also advanced in the general area of the former UST; however, soil samples from these borings were collected for waste characterization evaluation purposes and had a limited suite of analyses performed. Applicable data are shown on Plate 3.

⁵ ESL for Shallow Soil (residential land use) where groundwater is a current or potential drinking water source (Table A-1).

at borings SB-28, SB-29, and SB-31, and not detected in samples from these five borings below 12.5 feet bgs;

- Toluene Detected in two samples from 12.5 feet bgs at concentrations of 3.8 and 9.6 μ g/kg. Toluene was not detected at borings SB-29, SB-30, and SB-31, and not detected in samples from these five borings below 12.5 feet bgs;
- Ethylbenzene Detected in seven samples from 1.5 to 12.5 feet bgs at concentrations ranging from 5.3 to 75,000 μ g/kg. Ethylbenzene was not detected at borings SB-28 and SB-31, and not detected in samples from these five borings below 12.5 feet bgs;
- Xylenes Detected in seven samples from 1.5 to 12.5 feet bgs at concentrations ranging from 4.4 to 18,000 μ g/kg. Xylenes were not detected in samples below 12.5 feet bgs;
- TPHd Detected in all soil samples except for one, at concentrations ranging from 5.7 to 920 mg/kg. The majority of the TPHd detections were characterized by the analytical laboratory as having a chromatographic pattern that does not resemble the diesel standard. This quantification may be caused from overlap with gasoline-range hydrocarbons or from biogenic material, as was observed in groundwater samples (see below); and
- TPHmo Detected in all soil samples except for one, at concentrations ranging from 9.0 to 1,000 mg/kg.

As shown on Cross-section A-A' (Plate 4), these data indicate that the vertical extent of petroleum hydrocarbons in the source area has been delineated and elevated concentrations generally do not extend below 12.5 feet bgs. Based on the planned excavation depth of 15 feet bgs in the former tank vicinity, most or all of the soil in the source area that is affected with petroleum hydrocarbons from prior tank releases will be removed in accordance with the approved RWP.

Heavy-fraction petroleum hydrocarbons (i.e., TPHd and TPHmo) were detected in the majority of the soil samples, with concentrations ranging from 5.7 to 920 mg/kg and from 9.0 to 1,000 mg/kg, respectively. These values are comparable with data collected over the entire redevelopment site (Appendix C). There is no obvious trend of TPHd and TPHmo concentrations in proximity to the former UST. Rather, the observed TPHd and TPHmo concentrations are indicative of: (1) fill that was placed over native bay muds to reclaim the land from San Francisco Bay, or (2) off-site, upgradient heavy-fraction petroleum hydrocarbons (for those samples collected below the water table).

In addition, to prepare landscaping areas and provide structural support for exterior sidewalks adjacent to the south side of the building perimeter, a 12.5-foot wide and 4-foot deep area of soil will be excavated and replaced as an engineered fill with clean imported material (refer to

Plate 4 and Appendix B). This perimeter area excavation will facilitate removal of petroleum residuals in the area south of the former UST. The excavation sidewall below 4 feet bgs in this area is expected to be accessible during the shallower building excavation work while placing shoring and, as such, affected soil along the sidewall of the excavation below 4 feet bgs can be removed if present.

EVALUATION OF GROUNDWATER FLOW DIRECTION

Groundwater flow direction data pertinent to the site has been collected from three information sources over a period from 1981 to the present. These data include:

• Emery Bay Marketplace/Nielsen Trucking Groundwater Monitoring - Groundwater water-level data was collected over an extended period (1981 through 1996) from twenty-four (24) monitoring wells located on the Emery Bay Marketplace⁶. The Marketplace property is located adjacent to the east and south of the subject site. The northernmost portion of the Marketplace site was also occupied in the 1960s through early 1980s by Nielsen Freight Lines Company.

Groundwater monitoring wells were initially installed in about 1981 when underground fuel tanks were removed from the former Nielsen facility (located adjacent to and east of the subject site). Additional wells were installed across the Marketplace property in the late 1980s (for a total of 24 wells) during redevelopment of Emery Bay Marketplace. Following redevelopment, thirteen (13) of the wells were monitored on a quarterly basis for an additional seven-year period under ACEH direction (August 1989 through October 1996)⁷.

The many years of monitoring of the Marketplace/Nielsen property demonstrated that the predominant groundwater flow direction is westerly, towards San Francisco Bay as expected. Although contouring of water-level data suggested localized flow directions may vary slightly, ranging from northwesterly to southwesterly, this is likely due to the variable soils and fill across the Marketplace site⁸.

EmeryBay Marketplace was redeveloped in the 1980's, with investigation and soil remediation performed with oversight by Alameda County Department of Health Services. After redevelopment, in about 1995 California DTSC became lead agency for the site. A "no further action" determination was made, and land-use controls were placed on the site in a deed covenant. Documents are available on EnviroStor, at: http://www.envirostor.dtsc.ca.gov/public/profile report.asp?global id=01290021

⁷ McLaren Hart performed the groundwater monitoring at Emery Bay Marketplace from May 1987 through April 1993. PES performed the monitoring from July 1993 through October 1996.

⁸ The Emery Bay Marketplace property, like the 6340 and 6390 Christie Avenue properties, is comprised of land reclaimed by filling of San Francisco Bay prior to about 1940.

- Proposed 64th and Christie Building Groundwater Investigation As part of the 2011 investigation performed under the RWP, six (6) temporary monitoring wells were installed across the 6340 and 6390 Christie properties. The well locations are shown on Plate 2. Water-level measurements were obtained from the wells and top-of-casing elevations were surveyed. Depth to water observed in these wells ranged from 3.95 to 6.10 feet below the top of the well casing. The contoured potentiometric surface using these data (refer to Plate 5) indicates that groundwater flow is to the west-northwest. This is consistent with the generally-westerly groundwater flow in the vicinity of the site, towards San Francisco Bay.
- Lerer Site Groundwater Monitoring in 1999 Three groundwater monitoring wells (MW-1 through MW-3) were installed at 6340 Christie during investigations in January 1999 by ASE, approximately 10 years after the diesel tank had been removed. Four rounds of water-level measurements were made in these wells between January and October 1999. Based on the observed groundwater elevations, groundwater in the immediate vicinity was interpreted by ASE to flow south to southeast. Depth to groundwater at the time ranged from about 3.8 to 5.1 feet below the top of the well casing.

The south to southeast flow direction indicated during the 1999 monitoring was an anomaly. It is inconsistent with prior and recent monitoring data as discussed above, and also is inconsistent with the expected flow direction towards San Francisco Bay. Of note is that the 1999 flow determinations were based on a spatially-limited three-point planar solution to groundwater flow (i.e., three water-surface elevations). By comparison, flow direction on Marketplace was determined by contouring at least 13 (or more) monitoring wells over many years, and the March 2011 groundwater flow determination was based upon contouring water-level data from 6 wells across the entire 6340 and 6390 Christie properties.

A rudimentary three-point solution can result in anomalous results, not representative of actual flow direction, if water levels in just one or more of the wells are affected by unusual or inconsistent aquifer conditions. Possible causes of anomalous groundwater levels at wells monitored in 1999 include: (1) well MW-1 had unusual conditions in that it was placed very near (and potentially at the edge) of the backfilled tank excavation; and (2) borehole lithology logs for Wells MW-1 and MW-2 indicated the presence of debris fill at depths of 7 to 10 feet bgs in MW-1, and 7 to 12 feet bgs in MW-2. No debris fill was noted in the log for MW-3. The debris fill layer in MW-2 was surrounded above and below by low-permeability fine-grained soil (silty clay above and clayey silt below) that may have confined water in the saturated debris fill. One or both these conditions could have resulted in water levels at MW-1 to be slightly lower (relative to MW-2 and/or MW-3) compared to what they would be in the absence of these localized conditions, resulting in the anomalous southerly flow interpretation.

Accordingly, the groundwater flow direction data collected at Emery Bay Marketplace, and the recent March 2011 site-wide investigation, are concluded to be most representative of both local and regional groundwater flow conditions. The 1999 flow direction data are considered anomalous and unreliable and, as such, should be not be used for site characterization purposes.

DELINEATION OF PETROLEUM HYDROCARBONS IN GROUNDWATER

The 1998/99 investigations identified up to 620,000 micrograms per liter (μ g/L) TPHg and 1,200 μ g/L benzene in groundwater in the vicinity of the former UST. Additionally, TPHd at concentrations up to 49,000 μ g/L was detected on the west side of the 6340 building and up to 22,000 μ g/L on the east side. The lateral extent of affected groundwater was not previously defined.

However, to support a case closure determination, the recent March 2011 investigation has

- (1) sufficiently delineated current dissolved-phase concentrations in groundwater, and
- (2) determined groundwater flow direction (as described above).

Six temporary wells (GW-8 through GW-13) were installed and sampled across the redevelopment site, including near the former UST, during the 2011 site investigation. The results of the groundwater testing indicate the following:

- TPHg Detected in samples from GW-11, GW-12, and GW-13 at concentrations ranging from 0.15 to 0.42 milligrams per liter (mg/L). These concentrations slightly exceed the RWQCB ESL of 0.10 mg/L for drinking water;
- BTEX Toluene, ethylbenzene, and xylenes were detected at concentrations ranging from 0.5 to 9.9 μ g/L. Benzene was not detected in the groundwater samples. No detections exceeded the ESL;
- TPHd Detected in samples from all six wells at concentrations ranging from 1.0 to 10 mg/L. These detections were characterized by the analytical laboratory as having a chromatographic pattern that does not resemble the standard. This quantification is likely caused by naturally-occurring biogenic material. After silica gel cleanup, TPHd was detected in samples from GW-11, GW-12, and GW-13 at concentrations ranging from 0.12 to 0.13 milligrams per liter (equivalent to 120 to 130 μ g/L). These three detections only slightly exceed the ESL of 0.10 mg/L; and
- TPHmo Detected in samples from all six wells at concentrations ranging from 1.4 to 11 mg/L. After silica gel cleanup, TPHmo was non-detect in all six samples, indicating the likely presence of biogenic material.

The extent of groundwater impacts from the former tank has been defined through groundwater sampling and analyses conducted by ASE, and the March 2011 investigation described herein. There are no significant concentrations of aromatic BTEX compounds remaining on the site, and most of the TPHmo and TPHd detected in the site wells in March 2011 were shown to be biogenic. Groundwater in the southern portion of the site (GW-11, GW-12 and GW-13) contains low concentrations of light- to medium-fraction petroleum hydrocarbons (i.e., TPHg and TPHd) that may be residuals from prior releases at the former UST area. The wide spread nature of the heavy-fraction hydrocarbons (i.e., TPHmo) in groundwater appears to represent low-concentration regional levels that are likely attributable to historical fill beneath the site or offsite, up-gradient sources. The extent of remaining petroleum residuals dissolved in groundwater is defined to the north and northwest by Wells GW-8, GW-9 and GW-10. The extent of impact to the south (i.e., upgradient) was delineated by data from off-site Borings BH-F and BH-G, sampled in 1999.

Although several of the detected petroleum hydrocarbons slightly exceed their respective ESLs, with removal of sources the dissolved-phase concentrations are expected to attenuate over time to below ESLs.

Finally, groundwater at the site has elevated conductivity. Field measurements collected during well sampling identified conductivity levels ranging from approximately 1,160 to 11,600 microSiemens per centimeter (μ S/cm) (Appendix C). The conductivity levels were above the secondary MCL (900 μ S/cm) for all samples, and above the upper secondary MCL (1,600 μ S/cm) for five out of six groundwater samples. Two of the samples were above the RWQCB limit of 5,000 μ S/cm for waters potentially suitable for municipal supplies. It is therefore unlikely that groundwater at the site would be considered drinking water or could be used as such. In addition, City of Emeryville Ordinance No. 07-006 prohibits the use of groundwater for water supply purposes.

PREFERENTIAL PATHWAY ASSESSMENT

Based on review of available utility maps at the site, there is one underground utility in the vicinity of the former UST. A storm drain catch basin is present just southeast of the site, and drains to the southwest (Plate 3). The inverts of the pipelines connecting to this catch basin were inspected by PES on June 1, 2011 and observed to be approximately 2.8 to 3.1 feet bgs. Based on the approximately 4- to 6-foot depth to groundwater at the site (see above), it is unlikely that this utility trench has acted as a preferential pathway to migration of releases at the former UST. This is shown also shown on cross-section A-A' (Plate 4).

A preliminary well survey assessment was also conducted. Based on PES' review of nearby well survey results⁹, and given the generally westerly groundwater gradient, there are no significant conduits for vertical contaminant transfer located downgradient of the subject site. PES has also requested an independent well records search from the California Department of Water Resources (DWR) and Alameda County Public Works database; any significant contrary results from review of these records will be presented in an addendum to this report.

SOIL VAPOR SAMPLING

Site investigations in 2004 identified the presence of up to 5.5 μ g/L benzene and 830 μ g/L TPHg in soil vapor samples collected at approximately 3 feet bgs at location SG-4, located approximately 20 feet northwest of the former UST location. Accordingly, the RWP identified vapor intrusion as a potential exposure pathway requiring mitigation. The RWP specifies that mitigation of this pathway will include removal of soil containing VOCs via excavation for building construction. Also, as described in the RWP, the new building will be intrinsically-safe with respect to vapor intrusion, with occupied spaces constructed above a concrete podium over a mechanically-ventilated sub-grade parking garage. The building design also includes the use of sub-grade waterproofing barrier systems, which will also prevent infiltration of soil vapors, if present.

As described above, site redevelopment will include removal of soil beneath the building footprint to depths ranging from 11 to 15 feet bgs. No vadose zone soil will remain beneath the future building constructed on the subject property, and as such, no exposure pathways to future building occupants will remain.

CONCLUSIONS

The results of the recent soil and groundwater investigation, along with the results from historical investigation and monitoring activities, indicate the following:

• Depth-to-water measurements and corresponding groundwater elevations collected during the 2011 investigation indicate: (1) the direction of groundwater flow at the site is to the west-northwest, (2) the direction of groundwater flow is consistent with expected westerly regional flow toward San Francisco Bay as indicated during many years of monitoring at the adjacent Marketplace property to the east and south, and (3) groundwater flow direction data collected in 1999 are considered anomalous and unreliable for site characterization purposes;

⁹ Stellar Environmental Solutions, Inc. 2009. *Preferential Pathway and Indoor Air Survey Report, EmeryBay Condo Phase I Parking Garage, 6400 Christie Avenue, Emeryville, California*. April 3.

- The vertical extent of petroleum hydrocarbons in soil in the vicinity of the former UST at concentrations exceeding ESLs is generally limited to depths above 12.5 feet bgs. Soil excavation during redevelopment will extend to between 11 and 15 feet bgs across the entire site, and to 15 feet bgs at the former tank location source area. Soil will be removed to approximately 4 feet bgs for landscaping and structural purposes on the south side of the building. As such, most or all of the source area soil at the site will be removed during redevelopment;
- Concentrations of dissolved-phase petroleum hydrocarbons in groundwater are slightly above (TPHg and TPHd) or below (BTEX and TPHmo) ESLs for drinking water. However, in the absence of ongoing petroleum sources to groundwater, dissolved-phase concentrations will continue to attenuate over time to below ESLs. Conductivity levels suggest that groundwater at the site would not be considered a potential drinking water source, and use of groundwater in Emeryville is prohibited by City Ordinance No. 07-006;
- No preferential groundwater flow pathways were identified in the vicinity of the former UST; and
- After the building excavation is completed, no vadose zone will remain at the site. The new building will be a podium-style intrinsically-safe design, with occupied spaces located above a mechanically-ventilated garage. Therefore vapor intrusion will not be a potential exposure pathway to future users of the site building.

RECOMMENDATIONS

We trust this report satisfies ACEH's recommendation for appropriate investigation of site data gaps, as articulated in its January 28, 2011, correspondence to the SWRCB. On the basis of the investigation results contained herein which indicate the localized and stable nature of the groundwater plume and the absence of significant risk to human health and the environment, and the discussion supporting that the direction of the groundwater gradient at the site is consistent with the regional flow direction (i.e., westerly toward San Francisco Bay), no further investigation is recommended. Accordingly, on behalf of Rockwood Christie, we request ACEH's consideration of appropriate closure proceedings for the fuel leak case located at 6340 Christie Avenue.

Please call either of the undersigned if you have any questions.

Yours very truly,

PES ENVIRONMENTAL, INC.

William W. Mast

Associate Engineer

Robert S. Creps, P.E.

Principal Engineer

Attachments: Table 1 – Summary of Analytical Results for Soil – Petroleum Hydrocarbons,

VOCs, SOCs, Vicinity of UST

Table 2 - Summary of Analytical Results for Groundwater -

Petroleum Hydrocarbons and VOCs

Plate 1 – Site Location Map

Plate 2 – Soil and Groundwater Sampling Locations

Plate 3 - Soil Analytical Results Near Former UST

Plate 4 - Cross-Section A-A'

Plate 5 - Groundwater Potentiometric Surface Map

Appendix A - Agency Correspondence

Appendix B - Site Development/Grading Plan

Appendix C – Site Investigation Report (on CD-ROM)

cc: Denise Pinkston - Rockwood Christie LLC

TABLES

Table 1 ${\bf Summary\ of\ Analytical\ Results\ for\ Soil-Petroleum\ Hydrocarbons,\ VOCs,\ and\ SVOCs}$ Vicinty of Former UST 6390 Christie Avenue Emeryville, CA

	Sample				T D								VO	Cs									SVOCs		
Sample ID	Depth	Sample Location	Date	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	Acetone	2-Ba	n-Bb	sec-Bb	tert-Bb	Pbz	Naph	Isopb	1,2,4-TMB	1,3,5-TMB	Fluor	Naph	2-Mnaph	Phen	Pyrene
	(ft bgs)	Location		(mg/Kg)	(mg/Kg)	(mg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)
SB-24-1.5	1.5	SB-24	3/16/2011	850	740 Y	560 Y																			
SB-24-5.5	5.5	SB-24	3/16/2011	510	74 Y	1.2 Y		-																	
SB-24-12.0	12.0	SB-24	3/16/2011	990	260 Y	0.79		-																	
SB-25-2.5	2.5	SB-25	3/16/2011	430	120 Y	< 0.17			-																
SB-25-7.5	7.5	SB-25	3/16/2011	500	110 Y	< 0.18	< 4.5	< 4.5	< 4.5	< 4.5	< 18	< 9.1	< 4.5	< 4.5	< 4.5	< 4.5	13	< 4.5	< 4.5	< 4.5	< 67	150	< 67	< 67	74
SB-25-12.5	12.5	SB-25	3/16/2011	1,000	340 Y	0.53 Y		1		-		-	-	-	-										
SB-26-1.5	1.5	SB-26	3/17/2011	640	170 Y	4.3 Y	41	< 3.9	5.3	4.4		1	1	1	1							-			
SB-26-6.5	6.5	SB-26	3/17/2011	270	95 Y	1.5 Y	< 4.5	< 4.5	< 4.5	< 4.5															
SB-26-12.5	12.5	SB-26	3/17/2011	280	69 Y	5.2 Y	15	9.6	10	31			-	-											
SB-26-20.0	20.0	SB-26	3/17/2011	80	44 Y	0.43 Y	< 4.1	< 4.1	< 4.1	< 4.1															
SB-27-2.5	2.5	SB-27	3/16/2011	94	16 Y	0.90 Y																			
SB-27-7.5	7.5	SB-27	3/16/2011	290	430 Y	0.46 Y		-				-	-	-											
SB-27-12.5	12.5	SB-27	3/16/2011	79	30 Y	4.7																			
SB-28-1.5	1.5	SB-28	3/17/2011	690	170 Y	0.34 Y	< 3.9	< 3.9	< 3.9	< 3.9															
SB-28-7.5	7.5	SB-28	3/17/2011	< 5.0	< 1.0	< 0.14	< 4.3	< 4.3	< 4.3	< 4.3															
SB-28-12.5	12.5	SB-28	3/17/2011	880	380 Y	3.2 Y	< 3.8	3.8	< 3.8	< 3.8		-	-	-	-										
SB-28-16.0	16.0	SB-28	3/17/2011	11	6.7 Y	< 0.16	< 3.9	< 3.9	< 3.9	< 3.9		1	1	1	1										
SB-29-2.5	2.5	SB-29	3/16/2011	910	920 Y	710 Y	< 250	< 250	2,000	< 250		1	1	1	1							-			
SB-29-7.5	7.5	SB-29	3/16/2011	550	580 Y	9,700 Y	< 6,400	< 6,400	75,000	18,000			-												
SB-29-12.5	12.5	SB-29	3/16/2011	400	260 Y	2.6 Y	< 5.3	< 5.3	< 5.3	8.2	-														
SB-29-16.0	16.0	SB-29	3/16/2011	9.0	5.7 Y	< 0.18	< 6.2	< 6.2	< 6.2	< 6.2		-	-	-	-										
SB-30-2.0	2.0	SB-30	3/17/2011	49	49	740 Y	1,700	< 270	6,200	5,150															
SB-30-8.5	8.5	SB-30	3/17/2011	720	280 Y	680 Y	< 220	< 220	1,300	3,900	< 860	< 430	5,000	1,800	720	1,500	880	1,000	5,000	1,800	< 66	6,000	7,600	63	< 66
SB-30-12.5	12.5	SB-30	3/17/2011	180	120 Y	46 Y	< 4.1	< 4.1	39	145															
SB-30-15.5	15.5	SB-30	3/17/2011	69	53 Y	1.3 Y	< 4.3	< 4.3	< 4.3	< 4.3															
SB-31-2.5	2.5	SB-31	3/16/2011	330	69 Y	< 0.17	< 4.5	< 4.5	< 4.5	< 4.5	-														
SB-31-7.5	7.5	SB-31	3/16/2011	430	170 Y	6.2 Y	< 3.8	< 3.8	< 3.8	< 3.8															
SB-31-12.5	12.5	SB-31	3/16/2011	1,000	640 Y	1,600 Y	< 220	< 220	< 220	< 220			-	-	-										
SB-31-16.0	16.0	SB-31	3/16/2011	690	360 Y	460 Y	< 500	< 500	< 500	< 500															
	Soil ESL	(1)		370	83	83	44	2,900	2,300	2,300	500										40,000	1,300	250	11,000	85,000
	Soil ESL	(2)		5,000	83	83	44	7,900	3,300	2,300	500										60,000	3,400	250	11,000	85,000

Notes:

24108202R004.xlsx - Table 1

VOCs = Volatile Organic Compounds

SVOCs = Semi-volatile Organic Compounds

mg/kg = milligrams per kilogram

μg/kg = micrograms per kilogram

ft bgs = Feet below ground surface

< 0.15 = Not detected at or above the indicated laboratory reporting limit ND = Not detected at or above the indicated laboratory reporting limit

-- = Not analyzed or not applicable

Y = Sample exhibits chromatographic pattern that does not resemble standard.

TPHmo = Total petroleum hydrocarbons quantified as motor oil

TPHd = Total petroleum hydrocarbons quantified as diesel

TPHg = Total petroleum hydrocarbons quantified as gasoline

= Sample interval will be removed as part of soil excavation during site redevelopment.

2-Ba = 2-Butanone

n-Bb = n-Butylbenzene

sec-Bb = sec-Butylbenzene

tert-Bb = tert-Butylbenzene

Pbz = Propylbenzene

Isopb = Isopropylbenzene 1,2,4-Tmb = 1,2,4-Trimethylbenzene

1,3,5-Tmb = 1,3,5-Trimethylbenzene

Fluor = Fluoranthene

Naph = Naphthalene Phen = Phenanthrene

2-Mnaph = 2-Methylnaphthalene

(1) California Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) for Residential Use - Shallow Soils (<3 meters below ground surface) (Table A). (2) California Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) for Residential Use - Deep Soils (>3 meters below ground surface) (Table C).

Table 2 Summary of Analytical Results for Groundwater - Petroleum Hydrocarbons and VOCs 6340 and 6390 Christie Avenue Emeryville, CA

		TPHmo	TPHd	TDUa							VOCs						
Sample ID	Date	(mg/L)	(mg/L)	TPHg (mg/L)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	sec-Bb	p-Iso T	Isopb	n-Bb	Pbz	Naph	1,2,4-Tmb	1,3,5-Tmb
		(IIIg/L)	(IIIg/L)	(IIIg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
GW-8	3/16/2011	< 0.3 / 1.4	< 0.050 / 1.0 Y	< 0.050	< 0.5	< 0.5	< 0.5	< 0.5	2.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
GW-9	3/16/2011	< 0.3 / 3.9	< 0.050 / 3.6 Y	< 0.050	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.8	< 0.5
GW-10	3/15/2011	< 0.3 / 4.8	< 0.050 / 4.9 Y	< 0.050	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5
GW-11	3/15/2011	< 0.3 / 6.6	0.13 Y / 5.9 Y	0.18	< 0.5	2.0	< 0.5	0.6	< 0.5	0.6	< 0.5	< 0.5	< 0.5	0.7	3.1	1.9	< 0.5
GW-12	3/15/2011	< 0.3 / 11.0	0.13 Y / 10 Y	0.150 Y	< 0.5	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 0.5
GW-13	3/15/2011	< 0.3 / 3.5	0.12 Y / 3.3 Y	0.420	< 0.5	1.5	1.0	9.9	< 0.5	1.5	2.5	0.7	2.2	1.8	< 0.5	36.0	9.4
TB-1	3/15/2011			< 50	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5
Groundwater	r ESL ⁽¹⁾	0.10	0.10	0.10	1	40	30	20	5						17		

Notes:

mg/L = Milligrams per liter

μg/L = Micrograms per liter

Y = Sample exhibits chromatographic pattern which does not resemble standard

- < 300 / 1,400 = Indicates sample results with / without silica gel cleanup
- < 0.5 = Not detected at or above the indicated laboratory reporting limit
- -- = Not Analyzed

TPHmo = Total petroleum hydrocarbons quantified as motor oil

TPHd = Total petroleum hydrocarbons quantified as diesel

TPHg = Total petroleum hydrocarbons quantified as gasoline

MTBE = Methyl Tert-Butyl Ether

sec-Bb = sec-Butylbenzene

p-Iso T = para-Isopropyl Toluene

Isopb = Isopropylbenzene

n-Bb = n-Butylbenzene

Pbz = Propyl Benzene

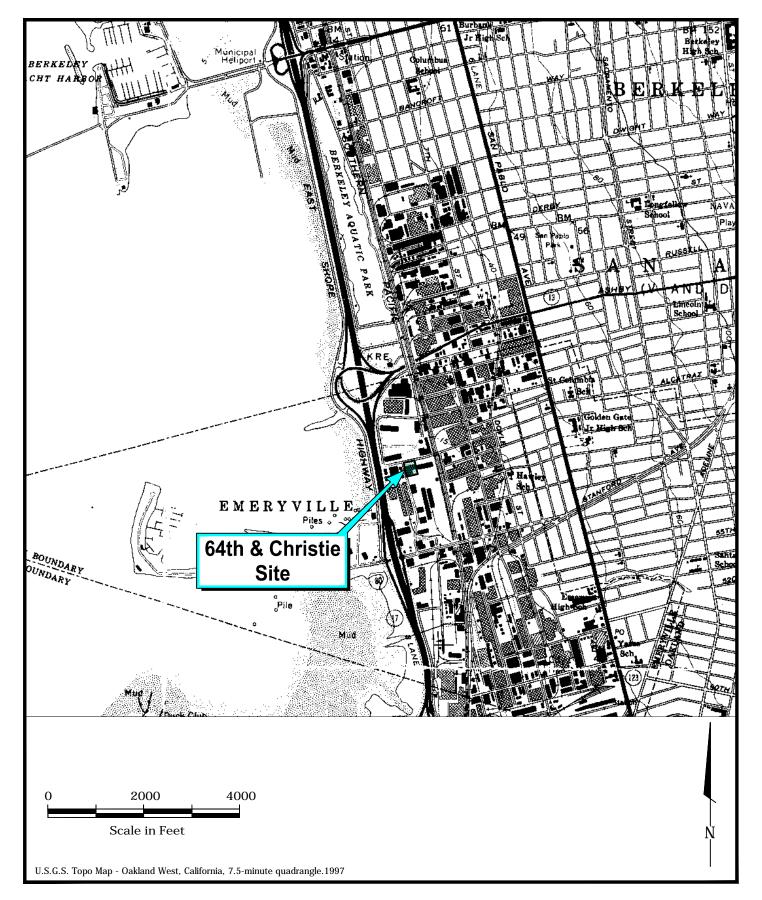
Naph = Naphthalene

1,2,4-Tmb = 1,2,4-Trimethylbenzene

1,3,5-Tmb = 1,3,5-Trimethylbenzene

(1) California Regional Water Quality Control Board Environmental Screening Level (ESL) for Groundwater that is a current or potential drinking water resource (Table F-1a; May 2008).

PLATES



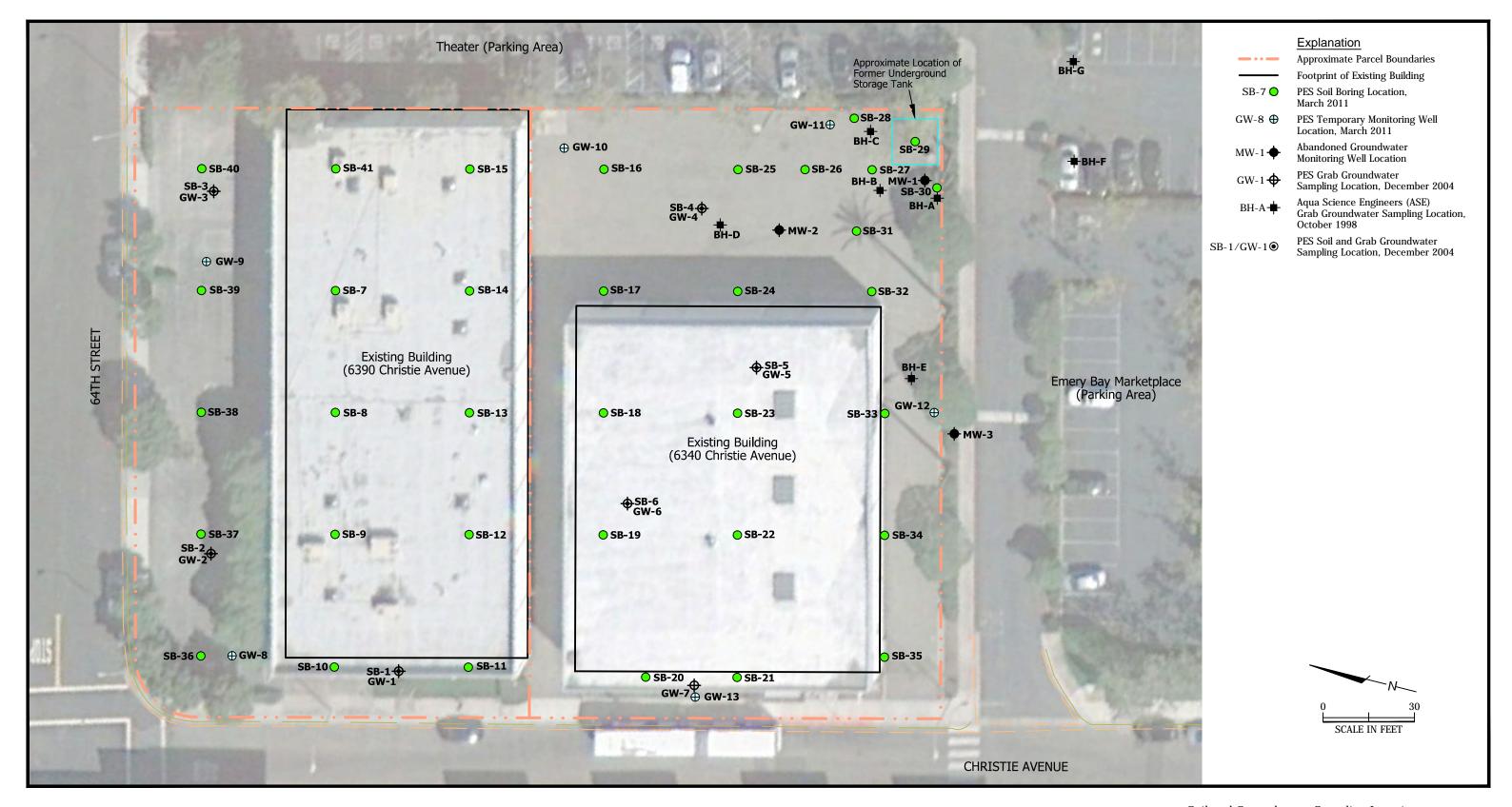


Site Location Map

Results of Soil and Groundwater Investigation 6340 and 6390 Christie Avenue Emeryville, California

PLATE

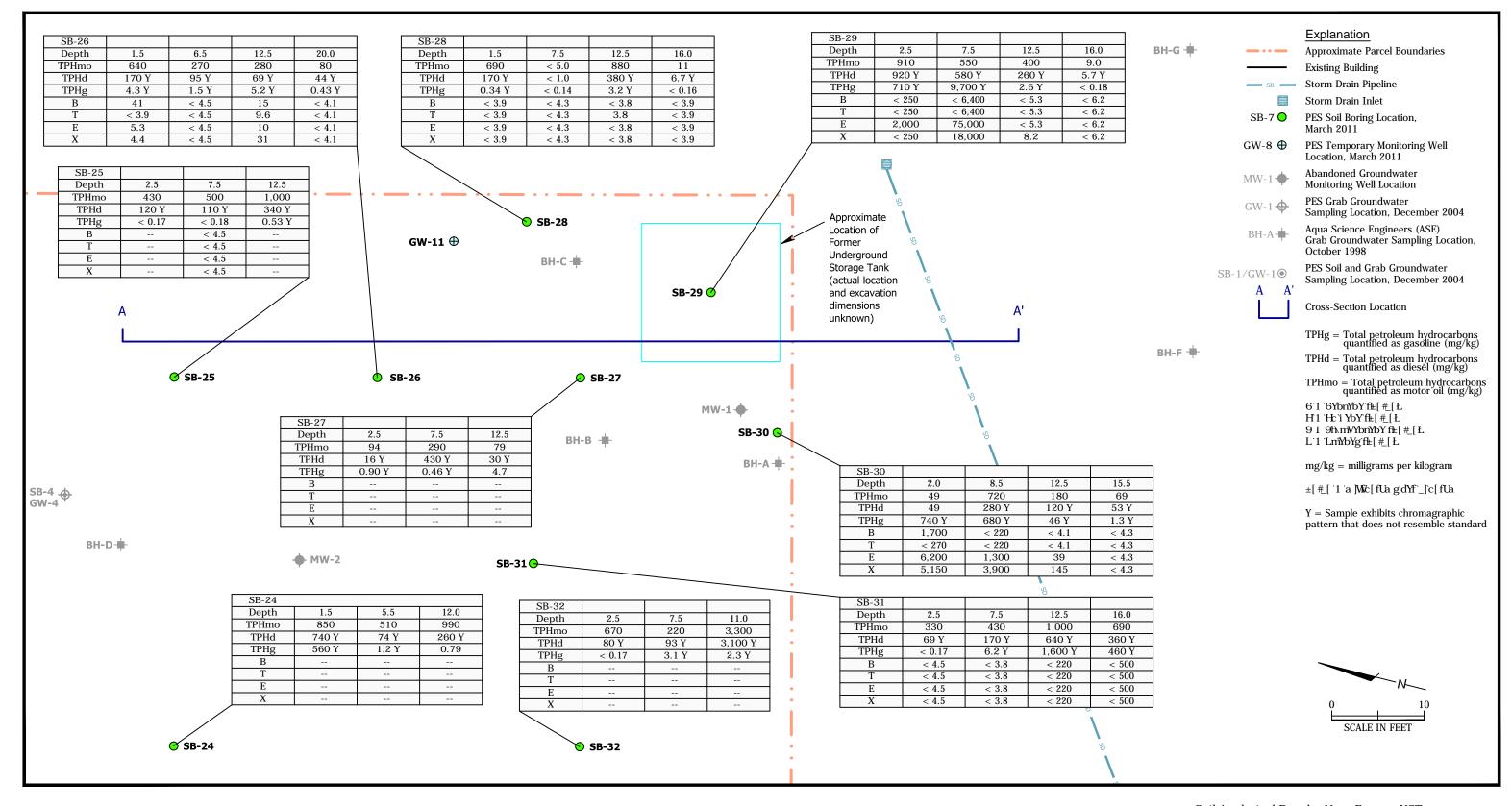
1





Soil and Groundwater Sampling Locations Results of Soil and Groundwater Investigation 6340 and 6390 Christie Avenue Emeryville, California

PLATE O





Soil Analytical Results Near Former UST Results of Soil and Groundwater Investigation 6340 and 6390 Christie Avenue Emeryville, California

PLATE

0

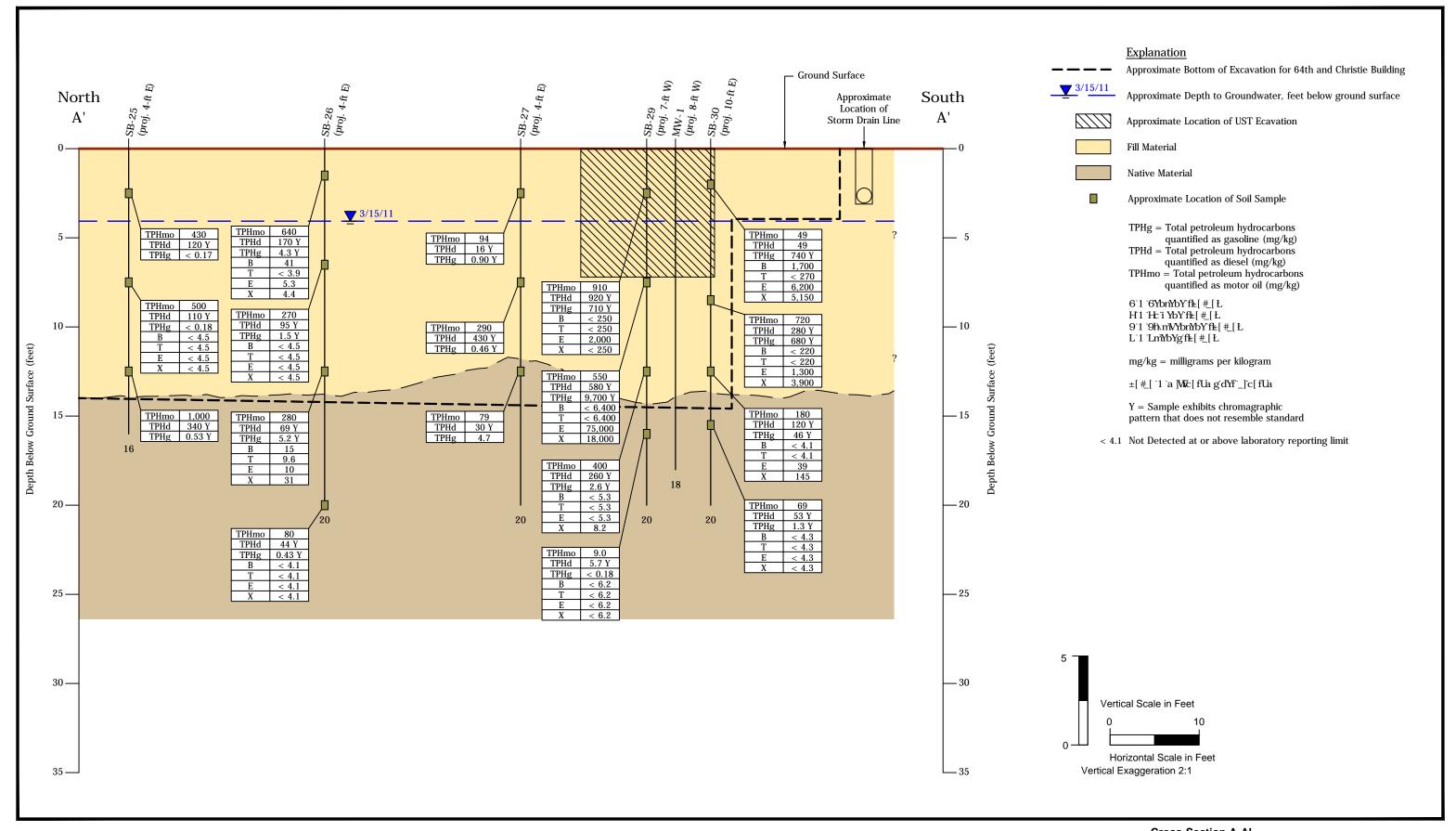
241.082.02.002 241-08202002_UST_3

JOB NUMBER

RSC

REVIEWED BY

6/11

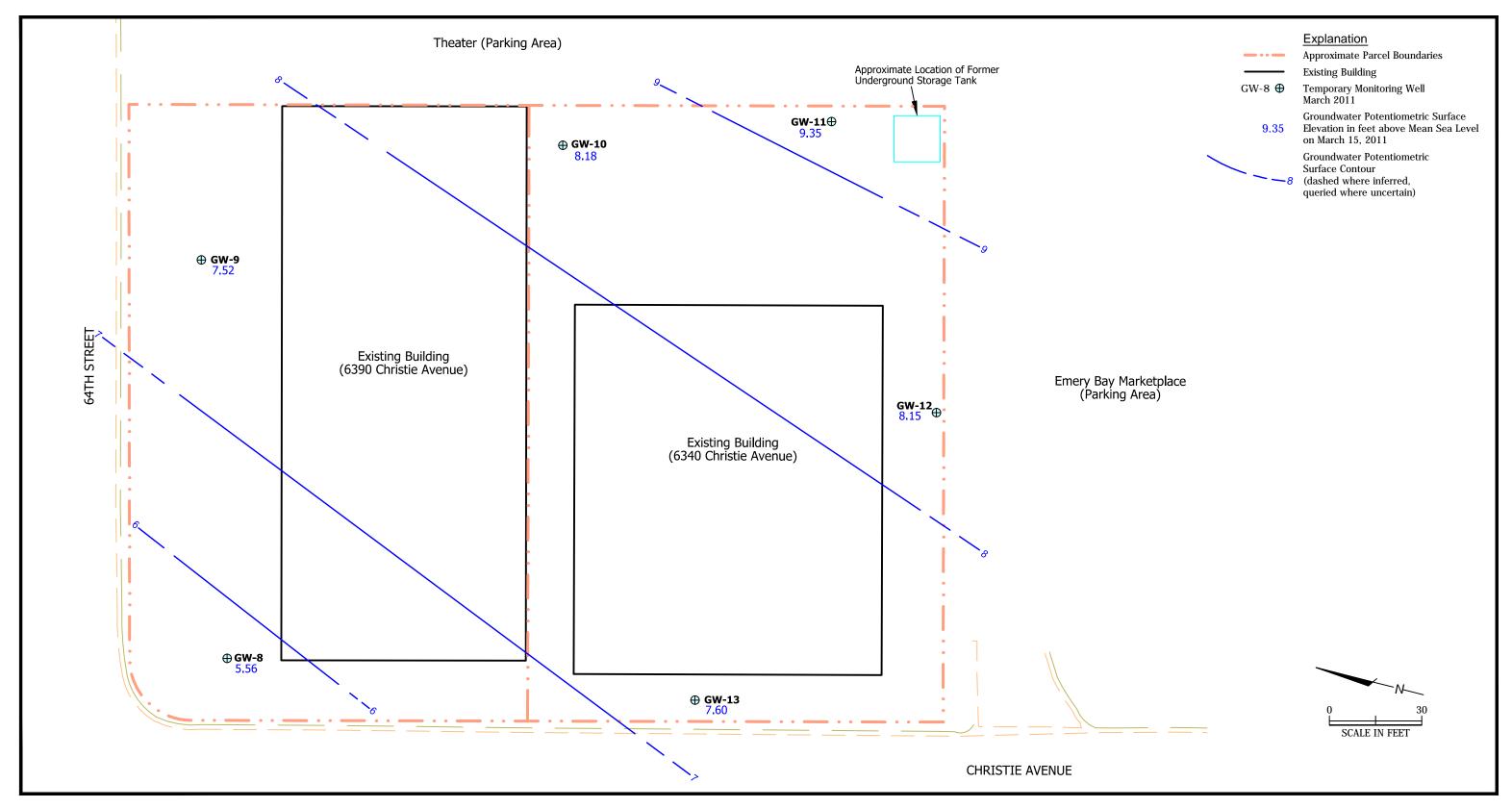




Cross-Section A-A' Results of Soil and Groundwater Investigation 6340 and 6390 Christie Avenue Emeryville, California

PLATE

241.082.02.002 241-08202002 UST 4





Groundwater Potentiometric Surface Map Results of Soil and Groundwater Investigation 6340 and 6390 Christie Avenue Emeryville, California

PLATE

241.082.02.002 241-08202002_UST_5 JOB NUMBER

RSC REVIEWED BY

6/11

APPENDIX A

AGENCY CORRESPONDENCE

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

April 3, 2009

Denise Pinkston Rockwood Christie LLC c/o TMG Partners 100 Bush St., 26th Floor San Francisco, CA94104 Richard and Beverly Gold Trust Lerer Brothers Transmission P.O. Box 117820 Burlingame, CA 94011-7820

Subject: Fuel Leak Case No. RO0000057 and Geotracker Global ID T0600191821, Lerer Brothers Transmission, 6340 Christie Avenue, Emeryville, CA 94608

Dear Ms Pinkston and Mr. and Mrs. Gold:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the site including the Case Closure Request submitted by Aqua Science Engineers, Inc. on December 22, 2003 and Phase II Environmental Subsurface Investigation Results Gold and Wolfman Properties prepared by PES Environmental, Inc. on January 21, 2005. A review of the site data indicates that up to 620,000 micrograms per liter (μ g/L) total petroleum hydrocarbons as gasoline (TPHg) and 1,200 μ g/L benzene were detected in boring BH-A in October 1998. These values are indicative of free product levels. Wells were subsequently installed, monitored and destroyed with no indication of ACEH approval for the well destruction. A Phase II report dated January 21, 2005 was submitted for this property and the adjacent property that indicates that contamination is also present in the areas sampled inside the building, west of the building and to the north of the former UST location. A maximum concentration of 49,000 μ g/L total petroleum hydrocarbons as diesel (TPHd) was detected in groundwater collected on the east side of the building and soil vapor samples indicated up to 830 μ g/L TPH, 5.5 μ g/L benzene, and 85% methane. These concentrations exceed the commercial environmental screening level (ESL) for these constituents.

ACEH has reviewed the case and has determined that additional work is needed to progress toward closure. ACEH requests that you perform the work requested below, address the following technical comments, and submit the report requested below.

TECHNICAL COMMENTS

Source Area(s) Soil Definition – Up to 1,400 mg/kg TPHg, 3,600 TPH as motor oil (TPHmo) and <6.2 mg/kg benzene were detected between 6 and 7 feet below ground surface (bgs), the maximum depth explored at this site, leaving the vertical extent of contamination undefined. Please submit a work plan to define the vertical extent of soil contamination in the work plan requested below.</p>

- 2. **Dissolved Contaminant Plume** Up to 620,000 μg/L TPHg and 1,200 μg/L benzene, which is indicative of free product, was detected at the former underground storage tanks (USTs). Wells were installed near the former USTs but were not located adjacent to or downgradient of the former borings. Please evaluate the current concentrations in the immediate area of BH-A and lateral extent in the area of the former USTs. In addition, up to 49,000 μg/L TPHd was detected on the west side of the building and 22,000 μg/L TPHd was detected on the east side of the building and the plume is not defined nor has the source of the diesel been located. Please locate the diesel source and evaluate the extent of diesel contamination. Submit your proposal in the work plan requested below.
- 3. **Soil Vapor Sampling** Up to 5.5 µg/L benzene and 830 µg/L TPH were detected in soil vapor samples exceeding the environmental screening level. Sufficient vapor samples were not collected from the former UST area which had the maximum contamination. In addition, the soil vapor sampling indicates that methane is present beneath the building at elevated concentrations. ACEH requests that you collect additional samples to evaluate the vapor intrusion pathway in the former UST area and evaluate the source of the methane. Please submit your proposal in the work plan requested below.
- 4. Regional Groundwater Flow Direction The ground water flow direction reported in your quarterly monitoring reports was predominantly to the south/southeast and appears anomalous when compared to the general regional flow direction in the vicinity. Nearby sites have reported flow directions to the northwest. Please include a concise narrative discussion of the regional hydrogeologic setting. Include a list of technical references you reviewed and evaluate and include a discussion on whether your groundwater flow direction obtained at the site was accurate.
- 5. **Base Maps** Please create one base map using an aerial photograph and include all USTs, dispensers, previous and new boring and well locations on the same map.
- 6. Preferential Pathway Study The purpose of the preferential pathway study is to locate potential migration pathways and conduits and determine the probability of the NAPL and/or plume encountering preferential pathways and conduits that could spread contamination. We request that you perform a preferential pathway study that details the potential migration pathways and potential conduits (wells, utilities, pipelines, etc.) for vertical and lateral migration that may be present in the vicinity of the site.

Discuss your analysis and interpretation of the results of the preferential pathway study (including the well survey and utility survey requested below) and report your results in the report requested below. The results of your study shall contain all information required by California Code of Regulations, Title 23, Division 3, Chapter 16, §2654(b).

a. Utility Survey

An evaluation of all utility lines and trenches (including sewers, storm drains, pipelines, trench backfill, etc.) within and near the site and plume area(s) is required as part of your study. Please include maps and cross-sections illustrating the location and depth of all utility lines and trenches within and near the site and plume areas(s) as part of your study.

b. Well Survey

A well survey was requested by ACEH in our October 2, 2006 correspondence. Please only evaluate the area within a 1,000-foot radius of the site and submit this information by the due date requested below.

LANDOWNER NOTIFICATION REQUIREMENTS

Pursuant to California Health & Safety Code Section 25297.15, the active or primary responsible party for a fuel leak case must inform all current property owners of the site of cleanup actions or requests for closure. Furthermore, ACEH may not consider any cleanup proposals or requests for case closure without assurance that this notification requirement has been met. Additionally, the active or primary responsible party is required to forward to ACEH a complete mailing list of all record fee title holders to the site.

At this time we require that you submit an updated and complete mailing list of all record fee title owners of the site by the date requested below, which states, at a minimum, the following:

- A. In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that the following is a complete list of current record fee title owners and their mailing addresses for the above site:
- OR -
- B. In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that I am the sole landowner for the above site.

(Note: Complete item A if there are multiple site landowners. If you are the sole site landowner, skip item A and complete item B.)

In the future, for you to meet these requirements when submitting cleanup proposals or requests for case closure, ACEH requires that you:

- 1. Notify all current record owners of fee title to the site of any cleanup proposals or requests for case closure;
- 2. Submit a letter to ACEH which certifies that the notification requirement in 25297.15(a) of the Health and Safety Code has been met;
- 3. Forward to ACEH a copy of your complete mailing list of all record fee title holders to the site; and
- 4. Update your mailing list of all record fee titleholders, and repeat the process outlined above prior to submittal of any additional *Corrective Action Plan* or your *Request for Case Closure*.

Your written certification to ACEH (Item 2 above) must state, at a minimum, the following:

A. In accordance with Section 25297.15(a) of the Health & Safety Code, in
(name of primary responsible party), certify that I have notified all responsible
landowners of the enclosed proposed action. (Check space for applicable
proposed action(s)):
cleanup proposal (Corrective Action Plan)
request for case closure

	local	agency	intention	to i	make	а	determination	that	no	further	action	İS
requ	ired	•										
	local	agency ii	ntention to	issi	ue a c	los	sure letter					
		1 P										

B. In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that I am the sole landowner for the above site.

(Note: Complete item A if there are multiple site landowners. If you are the sole site landowner, skip item A and complete item B.)

REQUEST FOR INFORMATION

ACEH's case file for the subject site contains only the reports located on our website at http://www.acgov.org/aceh/index.htm. You are requested to submit copies of all other reports, data, and correspondence related to environmental investigations for this property (including Phase 1 reports, the complete Phase II report with lab data and any and all other environmental reports and data not already on our website) by the date requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Barbara Jakub), according to the schedule presented below:

- May 4, 2009 Landowner Notification and additional reports
- June 3, 2009 Work Plan

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other

data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic submittal/report rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 639-1287 or send me an electronic mail message at barbara.jakub@acgov.org.

Sincerely,

Barbara J. Jakub, 4.6

Hazardous Materials Specialist

Enclosures: ACEH Electronic Report Upload (ftp) Instructions

cc: William Mash, PES Environmental, Inc., 1682 Novato Blvd., Suite 100, Novato, CA 94947

Donna Drogos, ACEH Barbara Jakub, ACEH

File

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)

ISSUE DATE: July 5, 2005

REVISION DATE: March 27, 2009

PREVIOUS REVISIONS: December 16, 2005,

October 31, 2005

SECTION: Miscellaneous Administrative Topics & Procedures

SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as a single portable document format (PDF)
 with no password protection. (Please do not submit reports as attachments to electronic mail.)
- It is preferable that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements must be included and have either original or electronic signature.
- Do not password protect the document. Once indexed and inserted into the correct electronic case file, the
 document will be secured in compliance with the County's current security standards and a password.
 Documents with password protection will not be accepted.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

• A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

- 1) Obtain User Name and Password:
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to dehloptoxic@acgov.org

Or

- ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
- b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
 - (i) Note: Netscape and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.



April 20, 2009

241.062.01.005

Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Attention: Ms. Barbara Jakub

Subject: Fuel Leak Case No. RO0000057 and Geotracker

Global ID T0600191821

Former Lerer Brothers Transmission

6340 Christie Avenue Emeryville, California

Dear Ms. Jakub:

We are in receipt of your letter of April 3, 2009, addressed to Denise Pinkston and the Richard and Beverly Gold Trust, regarding Fuel Leak Case No. RO0000057 and Geotracker Global ID T0600191821. Your letter responds to our request of November 17, 2008, requesting case closure for the removed gasoline underground storage tank associated with the former Lerer Brothers Transmission facility located at 6340 Christie Avenue in Emeryville, California ("Subject Site"). On behalf of Rockwood Christie LLC, the sole site owner, PES Environmental, Inc. (PES) has prepared this letter to provide the following additional reports and the landowner notification information, as you requested.

In addition to the information you requested, we also want to bring your attention to the forthcoming remediation of the Subject Site and adjacent area. This work will be conducted under the City of Emeryville's oversight in consultation with the Department of Toxic Substances Control (DTSC) and the San Francisco Bay Regional Water Quality Control Board (RWQCB). We believe that the cleanup will address the concerns that you raised, and we would be pleased to discuss the work with you in the context of bringing closure to the Subject Site.

Additional Reports

As requested, we are submitting two recent environmental documents that are not presently included on the Alameda County Environmental Cleanup Oversight Program's website. These documents establish the cleanup plan for an area, including the Subject Site that will be remediated under the oversight of the City of Emeryville in consultation with the DTSC and the RWQCB, as discussed above. This remedial work precedes, and is part of, overall redevelopment of the area into a Platinum LEED certified Neighborhood Development.

Ms. Barbara Jakub April 20, 2009 Page 2

The environmental documents include:

- Draft Remediation Work Plan, Proposed 64th and Christie Building, 6340 and 6390 Christie Avenue, Emeryville, California, prepared by PES Environmental, Inc., and dated October 21, 2008; and
- Conditional Approval of Remediation Work Plan 64th Street and Christie Avenue, Emeryville, California, by the City of Emeryville in a letter dated October 22, 2008.

The planned remedial work provides for the excavation and off-site disposal of soils impacted by the historical underground storage tank, as well as removal and off-site disposal of other contaminated soil. As requested, we will upload these documents to the Alameda County Environmental Cleanup Oversight Program's FTP site.

Landowner Notification

As directed by your letter, we provide the following landowner certification: In accordance with section 25297.15(a) of Chapter 6.7 of the Health & Safety Code, I certify that the following is a complete list of current record fee title owners and their mailing addresses for the above site: Rockwood Christie LLC, c/o TMG Partners, 100 Bush Street, 26th Floor, San Francisco, California, 94104.

Again, we would be pleased to discuss the forthcoming remediation work with you in the context of bringing closure to the Subject Site, and I will contact you this coming week. In advance, please do not hesitate to call me if you have any questions.

Very truly yours,

PES ENVIRONMENTAL, INC.

William W. Mast, P.G.

allow Will

Associate Engineer

cc: Ms. Denise Pinkston - Rockwood Christie LLC

Ms. Donna Drogos - ACEH

Mr. Ignacio Dayrit - City of Emeryville



State Water Resources Control Board

Division of Financial Assistance

1001 I Street • Sacramento, California 95814 P.O. Box 944212 • Sacramento, California • 94244-2120 (916) 341-5660 FAX (916) 341-5806 • www.waterboards.ca.gov/cwphome/ustcf



USTCF 5-YEAR REVIEW SUMMARY

Agency Information

Agency Name: Alameda County LOP	Address: 1131 Harbor Bay Parkway, Alameda, CA 94502-6577
Agency Caseworker: Barbara Jakub	

Case Information

Case No: 57	Global ID: T0600191821
Site Name: Lerer Brothers Transmission	Site Address: 6340 Christie Avenue,
	Emeryville, CA 94608
Responsible Party: Lerer Bros. Attn: Mr.	Address: P.O. Box 117820,
Robert Gold, DBA Gold Truck Parts, Inc.	Burlingame, CA 94011-7820
USTCF Claim No.: 13874	Number of Years Case Open: 12 Years
USTCF Expenditures to Date: \$21,534	

Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active ?	Date
1	2,000	gasoline	Removed	1988

Release Information

- Source of Release: UST System
- Date of Release: The reported date of the release is October 1998.
- Affected Media: Soil and groundwater.

Site Information

- GW Basin: East Bay Plain
- Beneficial Uses: Municipal and domestic supply
- Land Use Designation: Commercial
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are
- no water supply wells within ½ mile of the Site.
- Minimum Groundwater Depth: 3.86 feet below ground surface (bgs) at monitoring well MW-3.
- Maximum Groundwater Depth: 5.10 feet bgs at monitoring well MW-1.
- Groundwater Flow Direction: Predominately to the southeast with an average gradient of 0.011 feet/foot.
- Soil Types: The Site is underlain by low permeability sandy clays and sandy silt mixtures.
- Maximum Depth Sampled: 6.0 feet bgs.

Monitoring Well Information

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent DTW (feet bgs) (December 1999)
MW-1	1998	Destroyed May 2000	5.10
MW-2	1998	Destroyed May 2000	4.48
MW-3	1998	Destroyed May 2000	4.18

NA: Not Available

Petroleum Hydrocarbon Constituent Concentration

Contaminant	Soil (mg	g/kg)	Water (μg/	WQOs	
	Maximum	Latest	Maximum	Latest	(μg/L)
		2004		(1999)	
TPHg	1,400	0.077	2,000/620,000*	2,000	1
TPH-d	<6.3	<6.3	49,000*	NA	
TPH-mo	NA	3,600	7,400*	NA	
Benzene	0.011	< 0.0054	72/1,200*	72	1
Toluene	25	< 0.005	180/4,900*	10	300
Ethylbenzene	13	<0.0054	100/16,000*	92	700
Xylenes	27	<0.011	220/4,900*	220	1,750
MTBE	<6.2	< 0.0054	<5.0/21*	< 5.0	5
TBA	NA	NA	NA	NA	12
1,2-DCA	NA	NA	NA	NA	<0.5

NA: Not Analyzed, Not Applicable or Data Not Available

mg/kg: milligrams per kilogram, parts per million μg/L: micrograms per liter, parts per billion

WQOs: Water Quality Objectives

Site Description: The Site is located at the corner of 64th Street and Christie Avenue in the City of Emeryville, CA. The Site is bounded by the Bay Center Apartments on the north across 64th Street, a theater on the east, a parking lot for the Emery Marketplace on the south, and the Avenue 64 multi-family residential development of the east across Christy.

Site History/Assessments

In 1931 the Site was a tidal flat. By 1947 the Site had been filled, but no development had occurred until 1966. After development in the mid-1960's the property was used as industrial warehouses and Lerer Brothers Transmission Service from 1980 through 1998. Other portions of the property have housed a tool warehouse, Sybase (1989 to 1994), and inter-Tel Technologies (1994 to present) along with various businesses including a photo lab, an advertising firm, Dictaphone and a software developer.

^{*} Samples collected from monitoring wells listed first. Grab groundwater collected from boreholes used for screening level analysis (72/1,200*).

Soil and groundwater investigation activities were conducted from 1988 through 1999 pertaining to the former UST at 6340 Christie. Three monitoring wells were installed and monitored through 1999 and then destroyed in 2000. Contamination appears to be limited to discrete areas that are planned to be excavated/mitigated with future development.

Remediation Summary

- Free Product: None reported in the files reviewed.
- Soil Excavation: None reported in the files reviewed.
- In-Situ Soil Remediation: None reported in the files reviewed.
- Groundwater Remediation: None reported in the files reviewed.

General Site Conditions

- Geology and Hydrogeology: Based on the results of investigations performed in the site vicinity, soils in the area consist primarily of clayey and silty sand fill material overlying native organic rich Bay Mud. Significant concentrations of methane have been reported in soil vapor samples which are consistent with numerous other locations around the Emeryville area.
- Estimate of Hydrocarbon Mass in Soil: Not reported in the files reviewed.
- Groundwater Trends: There five groundwater monitoring events that occurred in 1999 for this Site 11 years ago.

Sensitive Receptor Survey

No water supply wells within a 2,000 foot radius of the Site. Drinking water at and near the Site is currently supplied by the East Bay Municipal Utility District.

Risk Evaluation

No risk assessment was available in the files reviewed.

Recommendation

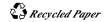
The UST Fund staff has completed a 5-Year Review of this Site and offer these recommendations for LOP consideration.

The UST Fund staff recommends this claim be considered for low risk closure upon completion of the planned construction for the following reasons:

- Petroleum hydrocarbon affected soil appears to be limited to shallow small areas (<6.0 feet bgs) of the Site. The planned construction will excavate to a depth of 7.0 feet bgs which will remove all documented contaminated soil.
- Naturally occurring methane mitigation measures designed into the future construction
 mitigate any chance vapor intrusion. This design includes a intrinsically-safe podium-style
 building with a water/vapor barrier beneath two levels of parking then one level of small
 businesses with the upper five floors planned as residential.

Original signed by 10/13/2010	Original signed by 10/13/2010
Pat G. Cullen, P.G. Date	Robert Trommer, CHg Date
Water Resources Control Engineer	Senior Engineering Geologist
Technical Review Unit	Chief, Technical Review Unit
(916) 341-5735	(916) 341-5684

California Environmental Protection Agency



January 28, 2011

ENVIRONMENTAL HEALTH DEPARTMENT ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

Pat Cullen
State Water Resources Control Board
Division of Financial Assistance
1001 I Street
Sacramento, CA 95814
(Sent via E-mail to:
PCullen@waterboards.ca.gov)

Robert Trommer
State Water Resources Control Board
Division of Financial Assistance
1001 I Street
Sacramento, CA 95814
(Sent via E-mail
RTrommer@waterboards.ca.gov)

to

Subject: Response to UST Cleanup Fund Five Year Review for Fuel Leak Case No. RO0000057 and

GeoTracker Global ID T0600191821, Lerer Brothers Transmission, 6340 Christie Avenue,

Emeryville, CA 94608

Dear Mr. Cullen & Mr. Trommer:

Alameda County Environmental Health (ACEH) does not appear to have received the Preliminary 5-Year Review Summary Reports dated October 13, 2010 from the Underground Storage Tank Cleanup Fund (Fund) for the site listed below. This letter is an effort to document our response. The Summary Report represents the Preliminary 5-year review of ACEH Local Oversight Program cases by the Fund. The Fund correspondence requests that ACEH respond to the Fund correspondence within 45 days of the date of the letter. Responses to the Fund recommendations for the site, are presented below. ACEH staff has reviewed the contents of the correspondence in the context of the appropriateness of recommendations. However, ACEH staff has not reviewed the reports for accuracy of all information presented.

ACEH is in partial agreement with USTCF review

ACEH Case: RO0000057 USTCF Claim: 13874 Global ID: T0600191821

Site Name: Lerer Brothers Transmission

Site Address: 6340 Christie Avenue, Emeryville

USTCF Recommendations from October 13, 2010 Review Summary:

The UST Fund staff recommends this claim be considered for low risk closure upon completion of the planned construction for the following reasons:

Petroleum hydrocarbon affected soil appears to be limited to shallow small areas (<6.0 feet bgs)
of the Site. The planned construction will excavate to a depth of 7.0 feet bgs which will remove
all documented contaminated soil.

Mr. Cullen & Mr. Trommer RO0000057 January 28, 2011, Page 2

Naturally occurring methane mitigation measures designed into the future construction mitigate
any chance vapor intrusion, This design includes a intrinsically-safe podium-style building with a
water/vapor barrier beneath two levels of parking then one level of small businesses with the
upper five floors planned as residential.

ACEH Response: ACEH is in partial agreement with these recommendations. ACEH is in agreement that the planned redevelopment of the site will effect positive changes at the site. However, because some of the more elevated soil contamination is immediately adjacent to the southern property line there is a potential for offsite soil impacts. While only shallow impacts are currently documented, groundwater at the site is shallow (5 to 7 feet bgs) and the presence of on- and off-site dissolved phase concentrations are known. The off-site dissolved phase concentrations have been attributed to the site; however, the extent or magnitude has not been defined. In fact the majority of available flow direction maps (three of four) for the southern portion of the two parcel site document groundwater flow to the southeast. While this may be a localized effect; it has not been further investigated. As a consequence ACEH offers the following alternative language:

 The UST Fund staff recommends this claim be considered for low risk closure upon completion of the planned construction and appropriate investigation of all relevant data gaps at the site.

Thank you for providing ACEH with the opportunity to comment on the subject sites. Please contact me if you have any questions regarding the above responses.

Sincerely,

Mark E. Detterman, P.G., C.E.G. Senior Hazardous Materials Specialist

Enclosures: Attachment 1 – Responsible Party (ies) Legal Requirements / Obligations

Electronic Report Upload (ftp) Instructions

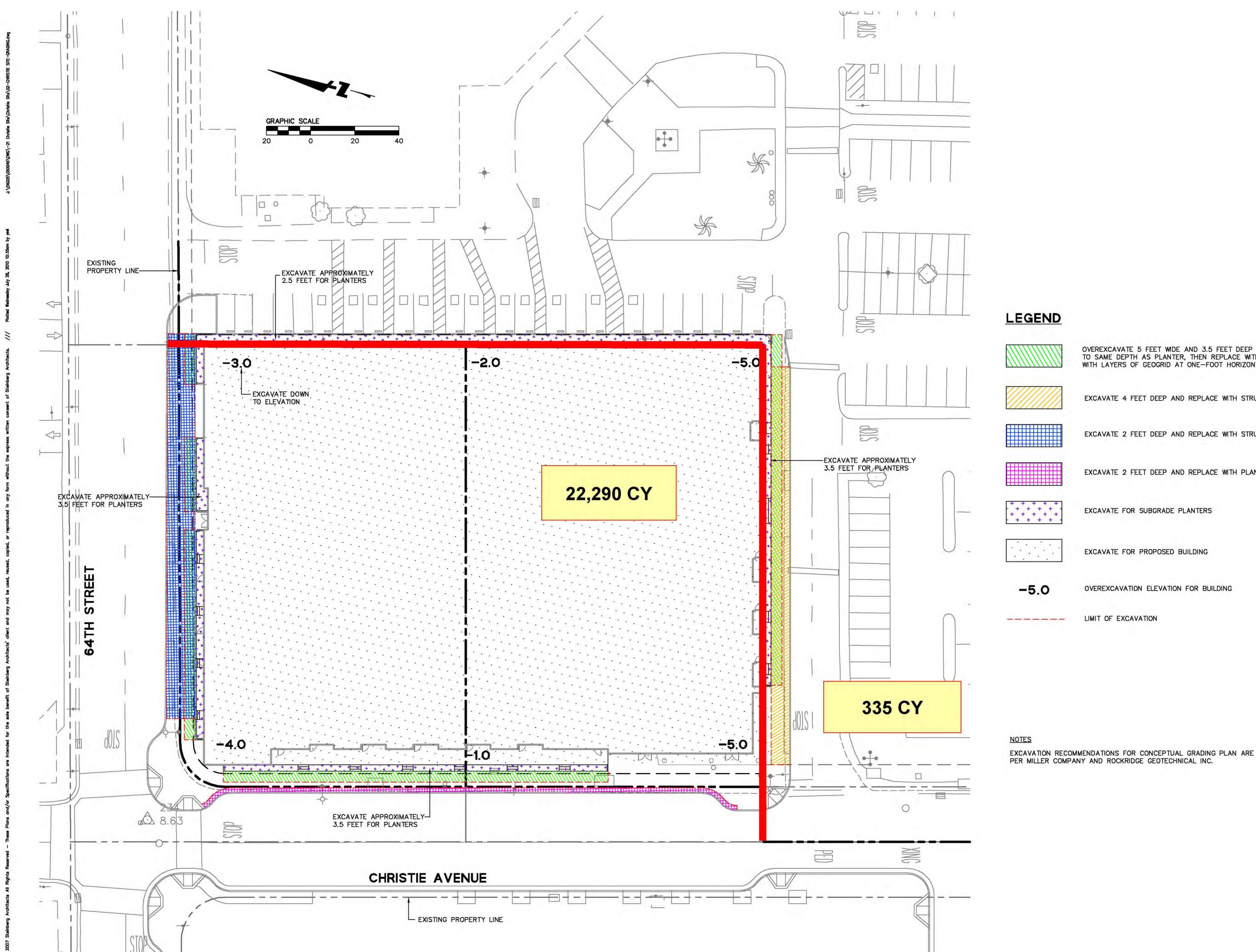
cc: Donna Drogos (sent via electronic mail to donna.drogos@acgov.org)

Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)

eFile, GeoTracker

APPENDIX B

SITE DEVELOPMENT/GRADING PLAN



Steinberg Architects

CUENT TMG Partners 100 Bush Street, 26th Floor San Francisco, CA 94104

Steinberg Architects 98 Battery Street, Suite 300 San Francisco, Ca 94111



255 SHORELINE DRIVE, SUITE 200 REDWOOD CITY, CA 94065 650/482-6300 650/482-6399 (FAX)

LEGEND

OVEREXCAVATE 5 FEET WIDE AND 3.5 FEET DEEP BENEATH SIDEWALK TO SAME DEPTH AS PLANTER, THEN REPLACE WITH ENGINEERED FILL WITH LAYERS OF GEOGRID AT ONE—FOOT HORIZONTAL SPACING

EXCAVATE 4 FEET DEEP AND REPLACE WITH STRUCTURAL SOIL

EXCAVATE 2 FEET DEEP AND REPLACE WITH STRUCTURAL SOIL

EXCAVATE 2 FEET DEEP AND REPLACE WITH PLANTING SOIL

EXCAVATE FOR SUBGRADE PLANTERS

EXCAVATE FOR PROPOSED BUILDING

-5.0 OVEREXCAVATION ELEVATION FOR BUILDING

LIMIT OF EXCAVATION

64th and Christie Residential Building

07.08.10 Final Development Plan Submitttal

06.08.10 Final Development Plan Submittal

REV DATE ISSUE

Emeryville, CA

CONCEPTUAL GRADING PLAN

PROJECT #: 10008.000 DATE: as noted SCALE: as noted

C6.0

APPENDIX C

SITE INVESTIGATION REPORT (ON CD-ROM)



A Report Prepared for:

Rockwood Christie LLC c/o TMG Partners Attention: Ms Denise Pinkston 100 Bush Street, 26th Floor San Francisco, California 94104

RESULTS OF PRE-EXCAVATION INVESTIGATION AND PRELIMINARY SOIL CHARACTERIZATION PROPOSED 64th AND CHRISTIE RESIDENTIAL BUILDING 64th STREET & CHRISTIE AVENUE EMERYVILLE, CALIFORNIA

JUNE 1, 2011

By:

Christopher J. Baldassari

Senior Geologist

William W. Mast, P.G.

Associate Engineer

Robert S. Creps, P.E.

Principal Engineer

241.082.02.002

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DISTRIBUTION

LIST OF TABLES

Table 1	Summary of Analytical Results for Soil – Petroleum Hydrocarbons, VOCs, and SVOCs
Table 2	Summary of Analytical Results for Soil - Metals
Table 3	Summary of Analytical Results for Groundwater – Petroleum Hydrocarbons and VOCs
Table 4	Summary of Analytical Results for Groundwater – Dissolved Metals

LIST OF ILLUSTRATIONS

Plate 1	Site Location Map
Plate 2	Site Plan and Vicinity Map
Plate 3	Soil and Groundwater Sampling Locations

1.0 INTRODUCTION

This report has been prepared by PES Environmental, Inc. (PES) to document the results of a pre-excavation soil and groundwater investigation and preliminary soil characterization. The work was conducted in support of the planned redevelopment of the site with a podium-style mixed-use residential/commercial building. The development project, known as the 64th and Christie Residential Building, is located at the southeast corner of the intersection of Christie Avenue and 64th Street in Emeryville, California. A site location map and a site plan and vicinity map are presented as Plates 1 and 2, respectively.

The work was conducted in accordance with the scope of work described in a Work Plan¹, as well as the Final Remediation Work Plan ² (RWP), both prepared under the direction of and with approval by the City of Emeryville, as lead agency for the site cleanup. The objective of the RWP is to mitigate identified threats to human health and the environment resulting from historical site activities. In support of that objective, the goals of the work described herein were to: (1) collect additional soil samples to provide current data that will allow better estimation of the likely costs associated with soil disposal during future site redevelopment (i.e., excavation and construction activities); (2) provide data that will aid in delineation of contaminants found in certain areas of the site; and (3) collect groundwater samples representative of current conditions in shallow groundwater.

The following sections of this report present: (1) a brief summary of site background information; (2) the methods and procedures for the soil and groundwater sampling activities; and (3) the results of the subsurface investigation.

2.0 BACKGROUND INFORMATION

Numerous environmental investigations have been conducted on the subject property between 1988 and 2004. A summary of previous environmental investigations and copies of the referenced reports can be found in the RWP.

Limited investigation of the site was conducted in late 2004³. The results of that testing indicated the presence of metals (i.e., cadmium, chromium, lead, nickel, and zinc) and heavy-fraction petroleum hydrocarbons (i.e., diesel and motor oil), light-fraction petroleum hydrocarbons (gasoline and its constituents) in the subsurface.

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¹ PES Environmental, Inc., 2011. Work Plan, Pre-excavation Soil and Groundwater Investigation and Preliminary Soil Characterization, Proposed 64th and Christie Residential Building, 64th Street & Christie Avenue, Emeryville, California. January 5.

² PES Environmental, Inc., 2011. Final Remediation Work Plan, Proposed 64th and Christie Residential Building, 64th Street & Christie Avenue, Emeryville, California. February 3.

³ PES Environmental, Inc., 2005. *Phase II Environmental Subsurface Investigation Results, Gold and Wolfman Properties, Emeryville, California.* January 21.

3.0 SUBSURFACE INVESTIGATION

The pre-excavation soil and groundwater investigation and preliminary soil characterization work was performed on March 14 through 17, 2011. The following sections describe the field methods and procedures.

The investigation consisted of advancing 35 soil borings for soil sampling purposes (SB-7 through SB-41), and advancing 6 additional borings for collecting groundwater samples (GW-8 through GW-13). Sample locations are shown on Plate 3.

3.1 Pre-Field Activities

Pre-field activities consisted of: (1) obtaining a permit from the Alameda County Public Works Agency (ACPWA); (2) contacting Underground Service Alert more than 48 hours before beginning drilling activities; (3) retaining a private utility locator, C Cruz Sub Surface Locators Inc. of Milpitas, California, to clear the proposed boring locations of subsurface utilities and foundations; and (4) retaining and scheduling Gregg Drilling, Inc. (Gregg) of Martinez, California, a licensed drilling contractor possessing a valid C-57 water well contractor's license, to perform the soil sampling and temporary groundwater well installation. A copy of the ACPWA drilling permit is provided in Appendix A.

3.2 Soil Sampling Methods and Procedures

Borehole drilling and sampling services were conducted in accordance with California Department of Water Resource Water Well Standards (Bulletin 74-90). Sampling was conducted under the supervision of a California-registered geologist. Soil cores were screened with a photoionization detector (PID). Lithologic logs were prepared for each boring using the Unified Soil Classification System. Lithologic logs are presented in Appendix B.

For the purpose of preliminary soil characterization, soil borings were advanced at 30 locations (SB-7 through SB-25, SB-27, and SB-32 through SB-41) to maximum depths of 16 feet below ground surface (feet bgs), and samples were collected at each boring from three discrete depths (approximately 2.5, 7.5, and 12.5 feet bgs). The soil samples were collected using direct-push drilling technology. Sample locations within existing building interiors were obtained utilizing either a portable Ramset drill or a track-mounted Marl M5T combination drill rig. In several instances sample depth intervals varied slightly due to soil recovery. As a consequence of drilling refusals from subsurface obstructions at location SB-13, only one sample at 2.5 feet bgs could be obtained. Similarly, at location SB-14 a soil sample from 12.5 bgs was not obtained due to poor sample recovery in the deeper portion of that boring.

To provide additional data useful for characterization of petroleum hydrocarbons in soil, five soil borings (SB-26, and SB-28 though SB-31) were advanced to approximately 20 feet bgs in the vicinity of the former UST. In addition to samples obtained from the depth intervals

described above, a deeper sample (i.e., 15.5 to 20 feet bgs) was collected to document conditions below the anticipated total excavation in the vicinity of the former UST area.

The soil samples were transported under chain-of-custody protocol to Curtis and Tompkins, Ltd. (C&T) in Berkeley, California, a California state-certified laboratory for the requested analyses. The samples were analyzed for: (1) the Title 22 list of 17 metals using U.S. EPA Method 6010B (2) total petroleum hydrocarbons (TPH) quantified as gasoline (TPHg) using U.S. EPA Method 8015M, and (3) TPH quantified as diesel (TPHd) and motor oil (TPHmo) using U.S. EPA Method 8015M. Soil samples collected from the five borings at the former UST area were analyzed for TPHg, TPHd, and TPHmo using the test methods listed above, and benzene, toluene, ethylbenzene, and total xylenes (BTEX) using U.S. EPA Method 8260B. A total of 10 soil samples were analyzed for volatile organic compounds (VOCs) using U.S. EPA Method 8260B and semi-volatile petroleum hydrocarbons (SVOCs) using U.S. EPA Test Method 8270C (GC/MS).

All boreholes were backfilled with neat cement grout from the bottom of the borehole, utilizing a tremie pipe, in accordance with ACPWA requirements. ACPWA was notified of the work within the timeframe specified in the drilling permit, and a grout inspector performed periodic on-site inspections during grouting activities.

3.3 Groundwater Sampling Methods and Procedures

In accordance with the Work Plan, on March 14 and 15, 2011, six temporary groundwater wells were installed by Gregg in the first water-bearing zone at locations across the site, as shown on Plate 3. The borings for the temporary wells were drilled using 8-inch diameter hollow-stem augers, and the temporary wells were constructed using 2-inch diameter schedule 40 polyvinyl chloride (PVC) casing and screened with 0.010-inch factory-slotted PVC from approximately 6 to 16 feet bgs. A filterpack consisting of #2/12 Monterey Sand was placed in the annular space adjacent to the entire screened interval of the well and extended approximately 2 feet above the top of the screened interval. An approximately 2-foot thick seal consisting of bentonite chips was placed above each filter pack.

Development and sampling activities for the temporary wells were performed by Blaine Tech Services, of San Jose, California. The wells were purged to stabilize the filter pack around the well screen and to produce representative water samples from the water-bearing zone. Water quality parameters including temperature, pH, specific conductance, and turbidity were monitored during development. Well monitoring data sheets are presented in Appendix C. Following well purging, low flow sampling techniques⁴ as well as field-filtering of samples were utilized to obtain representative groundwater samples.

⁴ In general accordance with EPA recommended procedures (*Low Flow (Minimal Drawdown) Groundwater Sampling Procedures*, EPA/540/S-95/504, April 1996).

Upon collection of groundwater samples, the temporary well materials were removed, the borings reamed with 8-inch augers to the total depth of the original boring, and the boreholes were grouted in accordance with ACPWA permit requirements.

The groundwater samples were transported to C&T under chain-of-custody protocol and analyzed on a standard 5-day turnaround time for: (1) the Title 22 list of 17 metals using U.S. EPA Method 6010B (2) VOCs and TPHg using U.S. EPA Method 8260B; and (3) TPHd/mo using by U.S. EPA Method 8015M, following silica gel cleanup to remove biogenic interference (samples analyzed for TPHmo/d were also analyzed without silica gel cleanup).

Downhole drilling and sampling equipment was steam cleaned at the commencement of fieldwork and between each borehole. Soil cuttings, decontamination rinsate, and any excess bailed groundwater were containerized in a 55-gallon drum and stored on the site for subsequent disposal pending chemical characterization. Upon completion of sampling activities, each borehole was grouted to the surface with cement grout under the oversight of an ACPWA inspector.

The ground surface adjacent to each temporary well was surveyed by a California registered land surveyor to obtain vertical reference elevations relative to NAVD88 and horizontal coordinates relative to NAD83 at each location. Survey results are presented in Appendix D.

4.0 INVESTIGATION RESULTS

4.1 Lithology

In general, subsurface soils consist of fill comprised of soft to dense clays and silts interlayered with loose to dense well graded sands overlying native Bay Mud. Debris was observed in numerous borings across the site at depths typically ranging from approximately 2 to 14 feet bgs. The observed debris generally consists of inert solids (e.g., glass, brick, wood, and roofing materials such as felt). The fragments of glass, brick, and wood appeared to be randomly scattered through the fill. Roofing debris and associated congealed, viscous tar was typically observed in 1- to 4-inch thick layers at depths ranging from approximately 7.5 to 12 feet bgs. Native Bay Mud deposits were observed beginning at depths between 12 and 15 feet bgs. Saturated soil conditions, indicative of groundwater, were encountered at depths generally varying between 4 to 7 feet bgs. Lithologic logs are presented in Appendix B.

4.2 Analytical Results

The soil and groundwater analytical results are discussed below. The laboratory analytical reports and chain-of-custody forms are presented in Appendix E.

4.2.1 Soil - Inorganic Analytical Results

On the basis of analysis for the suite of Title 22 metals, the inorganic analytical results indicated the presence of all 17 metals in soil samples at varying concentrations and detection frequencies. The laboratory analytical results of Title 22 metals in soil are presented in Table 2. The distribution of metals concentrations in the soil samples appears consistent with normal variations observed in San Francisco Bay area soil conditions, with the following exceptions:

- Lead was detected in all 87 samples at concentrations ranging from 3.1 to 1,500 mg/kg;
- Arsenic was detected in all 87 samples at concentrations ranging from 1.4 to 220 mg/kg; and
- Mercury was detected in 85 of the 87 samples at concentrations ranging from 0.034 to 7.3 mg/kg.

4.2.2 Soil - Organic Analytical Results

The organic analytical results for soils indicate the presence of medium- and heavy-fraction petroleum hydrocarbons (TPHmo and TPHd⁵). TPHg⁶ and petroleum hydrocarbon-related constituents (e.g., BTEX) were also detected at varying concentrations in soil samples collected across the site. The results for petroleum hydrocarbons, VOCs, and SVOCs are presented in Table 1 and summarized below:

- TPHmo was detected in 104 of 107 soil samples at concentrations ranging from 7.4 to18,000 milligrams per kilogram (mg/kg);
- TPHd was detected in 106 of 107 soil samples at concentrations ranging from 1.0 mg/kg to 3,600 mg/kg;
- TPHg was detected in 48 of 107 soil samples at concentrations ranging from 0.17 to 9,700 mg/kg;
- Benzene was detected in 3 of 29 soil samples at concentrations ranging from 15 to 1,700 micrograms per kilogram (μ g/kg);
- Toluene was detected in 2 of 29 soil samples at concentrations of 3.8 and 9.6 μ g /kg;

⁵ According to the analytical laboratory, hydrocarbons detected in the diesel range for all the analyzed samples did not exhibit chromatographic patterns resembling the diesel standard.

⁶ According to the analytical laboratory, hydrocarbons detected in the gasoline range did not exhibit chromatographic patterns resembling the gasoline standard in 44 of 48 samples where TPHg detections were reported.

- Ethylbenzene was detected in 7 of 29 soil samples at concentrations ranging from 5.3 to 75,000 μ g /kg; and
- Total xylenes were detected in 7 of 29 soil samples at concentrations ranging from 4.4 to $18,000 \mu g / kg$.

In general, TPHmo was detected at relatively low concentrations in soil samples from the site, with the exception of soil samples SB-18-12.5, SB-32-11.0, and SB-34-10.5, where TPHmo was detected at concentrations ranging from 1,800 to 3,300 mg/kg (Table 1). As indicated on Plate 3, boring SB-18-12.5 is located beneath the 6430 Christie Avenue building; boring SB-32-11.0 is located in the vicinity of the former UST; and SB-34-10.5 is located south of the 6430 Christie Avenue building near the southwest corner of the site. The highest concentration of TPHmo (18,000 mg/kg) was detected in a sample collected in boring SB-38-7.5, located north of the 6390 Christie Avenue building. The lithologic log for boring SB-38-7.5 indicate the presence of debris (identified in the field as roofing felt) within the soil sample interval and this debris material may be the source for the anomalously high concentration of TPHmo reported for the sample at this location. Taken as a whole, only 3 out of 107 soil samples exceeded the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Level (ESL) residential direct-exposure for TPHmo of 1,800 mg/kg.

With a few exceptions, TPHg was generally detected at relatively low concentrations in soil samples across the site. The highest concentration of TPHg (9,700 mg/kg) was detected in sample SB-29-7.5, obtained from backfill within the former UST cavity. VOCs, related to fuel hydrocarbons, including benzene, ethylbenzene and total xylenes were also identified in the vicinity of the former UST (i.e., at borings SB-29⁷ and SB-30. In general, concentrations of TPHg and VOCs related to fuel hydrocarbons appear to attenuate with depth based on the deeper soil samples (i.e., greater than 15 feet bgs).

SVOC detections in soil included fluoranthene, naphthalene, 2-methylnaphthalene, phenanthrene, and pyrene. SVOCs were not detected above the residential direct-exposure ESL in any samples, with the one exception: naphthalene and 2-methylnaphthalene were detected at concentrations of 6,000 and 7,600 μ g/kg in sample SB-30-8.5.

The results further indicate that: (1) chlorinated VOCs were not detected in any soil samples and do not appear to be present at the site; and (2) no newly discovered areas of soil contaminated with organic chemicals were identified.

4.2.3 Groundwater Flow Direction

Based on groundwater elevations collected from the temporary monitoring wells and groundsurface elevation data, the groundwater flow direction was determined to be northwesterly. Depth to water in the temporary wells ranged from 4.0 to 6.1 feet bgs.

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⁷ Elevated reporting limits in sample SB-29-7.5 may have prevented the detection of benzene and toluene.

4.2.4 Groundwater - Inorganic Analytical Results

The inorganic analytical results indicated the presence of 8 out of 17 dissolved metals (arsenic, barium, cobalt, lead, molybdenum, nickel, vanadium, and zinc) in groundwater at relatively low concentrations. The laboratory analytical results for Title 22 dissolved metals in groundwater are presented in Table 4.

4.2.5 Groundwater - Organic Analytical Results

Analytical results for petroleum hydrocarbons and VOCs in groundwater samples are summarized in Table 3. In accordance with discussions with the City of Emeryville, the extractable petroleum hydrocarbons were analyzed both with and without silica gel cleanup. TPHmo was not detected above the laboratory reporting limit in any samples for which silica gel cleanup was performed; where silica gel cleanup was not performed concentrations of TPHmo ranged from 1.4 to 11 milligrams per liter (mg/L). TPHd detections for which silica gel cleanup was performed ranged from 0.120 to 0.130 mg/L; detections for TPHd both with and without silica gel cleanup were noted by the laboratory as not resembling the standard chromatographic pattern. As shown in Table 3, the results indicate that a significant contribution to the detections may be attributable to polar organic compounds likely present from naturally occurring and/or historical anthropogenic sources found throughout the area.

Relatively low concentrations of TPHg and fuel hydrocarbon-related VOCs (i.e., toluene, ethylbenzene, and xylenes) were also detected in groundwater beneath the site. TPHg was detected in three out of six samples at concentrations ranging from 0.150 to 0.420 mg/L. The detections of TPHg were from samples nearest GW-11, GW-12, and GW-13. As shown on Table 3, low concentrations of fuel-related VOCs were detected in six out of six samples. Benzene was not detected in the groundwater samples.

5.0 DISCUSSION OF FINDINGS

5.1 Soil Characteristics

The lithologic conditions encountered are generally consistent with subsurface conditions observed during a geotechnical investigation conducted at the site in June 2010⁸. Fill containing scattered fragments of glass, brick, and wood was present to depths of approximately 12 feet bgs. The fill also contained a 1-to 4-inch thick layer of roofing debris and associated residual tar at depths ranging from 7.5 to 12 feet bgs.

The distribution of metals concentrations in the soil samples appears consistent with normal variations observed in San Francisco Bay area soils, with the following exceptions: (1) lead was detected at concentrations greater than the residential direct-exposure Environmental

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⁸ Rockridge Geotechnical, 2010. *Geotechnical Investigation, Proposed Residential Building, 64th Street and Christie Avenue, Emeryville, California.* August 4.

Screening Level (ESL) of 260 mg/kg in 8 of 87 soil samples; (2) arsenic was detected at concentrations greater than the residential direct-exposure ESL of 22 mg/kg in 7 of 87 soil samples; and (3) mercury was detected at a concentration greater than the residential direct-exposure ESL of 6.7 mg/kg in 1 of 87 soil samples. The disparate locations of the samples with metals concentrations exceeding their respective ESL appear to be consistent with the anticipated variable nature of the subsurface fill materials. Taken as a whole, lead and arsenic concentrations appear to attenuate with depth.

In general, TPHmo was detected at low to moderate concentrations in soil samples from the site, with the exception of soil samples SB-18-12.5, SB-32-11.0, and SB-34-10.5, where TPHmo was detected at concentrations ranging from 1,800 to 3,300 mg/kg (Table 1). As indicated on Plate 3, these three borings are located across the site: boring SB-18 is located beneath the 6430 Christie Avenue building; boring SB-32 is located in the vicinity of the former UST; and SB-34 is located south of the 6430 Christie Avenue building near the southwest corner of the site. The highest concentration of TPHmo (18,000 mg/kg) was detected in a sample collected from boring SB-38, located north of the 6390 Christie Avenue building. The lithologic log for boring SB-38 indicates the presence of roofing debris within the soil sample interval and the presence of this material may be the reason for the anomalously high concentration of TPHmo reported in this sample. Taken as a whole, just 4 out of 107 soil samples exceeded the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Level (ESL) residential direct-exposure for TPHmo of 1,800 mg/kg.

With a few exceptions, TPHg was generally detected at relatively low concentrations in soil samples across the site. The highest concentration of TPHg (9,700 mg/kg) was detected in sample SB-29-7.5. Elevated concentrations of VOCs related to fuel hydrocarbons, including benzene, ethylbenzene, and total xylenes were also identified at borings SB-29⁹ and SB-30. In general, concentrations of TPHg and VOCs related to fuel hydrocarbons appear to attenuate with depth based on the deeper soil samples (i.e., greater than 15 feet bgs).

SVOC detections in soil included fluoranthene, naphthalene, 2-methylnaphthalene, phenanthrene, and pyrene. SVOCs were not detected above the residential direct-exposure ESL in any samples, with the one exception: naphthalene and 2-methylnaphthalene were detected at concentrations of 6,000 and 7,600 μ g/kg in sample SB-30-8.5.

The results further indicate that: (1) chlorinated VOCs were not detected in any soil samples; and (2) no newly discovered areas of soil contaminated with organic chemicals were identified.

5.2 Groundwater Characteristics

As expected, groundwater flow direction at the site, based on one set of measurements from the six temporary wells, is generally westerly toward San Francisco Bay.

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⁹ Elevated reporting limits in sample SB-29-7.5 may have prevented the detection of benzene and toluene.

Detections of both extractable and purgeable petroleum hydrocarbons and fuel-related VOCs are generally consistent with sample results from prior site investigations, and indicate the presence of low concentrations of heavy-fraction petroleum hydrocarbons (i.e., TPHd and TPHmo) across the site. The groundwater results further indicate that: (1) chlorinated VOCs are not present in groundwater at the site; and (2) additional sources of groundwater contamination from organic constituents were not identified.

6.0 PROJECT STATUS

The pre-excavation investigation and preliminary soil characterization activities have been completed in accordance with the Remediation Work Plan for the planned development project. In accordance with the RWP, the next steps of the environmental evaluation consist of utilizing the investigation results described herein to assess soil and groundwater management options for the building excavation, and refine the environmental construction cost estimates.

TABLES

Table 1 Summary of Analytical Results for Soil - Petroleum Hydrocarbons, VOCs, and SVOCs Proposed 64th and Christie Avenue Residential Building 6340 and 6390 Christie Avenue Emeryville, CA

	Cample												VO	Cs									SVOCs		
Sample ID	Sample Depth	Sample	Date	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	Acetone	2-Ba	n-Bb	sec-Bb	tert-Bb	Pbz	Naph	Isopb	1,2,4-TMB	1,3,5-TMB	Fluor	Naph	2-Mnaph	Phen	Pyrene
	(ft bgs)	Location		(mg/Kg)	(mg/Kg)	(mg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(μg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)
SB-7-2.5	2.5	SB-7	3/14/2011	72	17 Y	< 0.17	< 3.9	< 3.9	< 3.9	< 3.9	< 15	< 7.7	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 3.9	< 67	< 67	< 67	< 67	< 67
SB-7-5.0	5.0	SB-7	3/14/2011	51	11 Y	< 0.21																			
SB-7-12.0	12.0	SB-7	3/14/2011	60	63 Y	1.9 Y		-						-								-			
SB-8-2.5	2.5	SB-8	3/14/2011	14	3.1 Y	< 0.17																			
SB-8-6.5	6.5	SB-8	3/14/2011	910	150 Y	1.5 Y		-						-											
SB-8-12.5	12.5	SB-8	3/14/2011	54	32 Y	< 0.15		1						1				-					-		
SB-9-2.5	2.5	SB-9	3/14/2011	260	80 Y	< 0.15		1						1				•				-	1		
SB-9-6.5	6.5	SB-9	3/14/2011	160	27 Y	< 0.18																			
SB-9-12.5	12.5	SB-9	3/14/2011	890	330 Y	1.7 Y																			
SB-10-2.5	2.5	SB-10	3/15/2011	630	210 Y	< 0.17		1						1				•				-	1		
SB-10-5.5	5.5	SB-10	3/15/2011	< 5.0	1.3 Y	< 0.16																			
SB-10-12.5	12.5	SB-10	3/15/2011	42	24 Y	0.75 Y		-						-											
SB-11-2.5	2.5	SB-11	3/17/2011	22	7.7 Y	< 0.16																			
SB-11-7.5	7.5	SB-11	3/17/2011	51	23 Y	< 0.17																			
SB-11-12.5	12.5	SB-11	3/17/2011	51	20 Y	< 0.15	< 5.1	< 5.1	< 5.1	< 5.1	59	12	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 5.1	< 66	< 66	< 66	< 66	< 66
SB-12-2.5	2.5	SB-12	3/14/2011	470	140 Y	< 0.17																			
SB-12-7.5	7.5	SB-12	3/14/2011	120	34 Y	< 0.16																			
SB-12-12.5	12.5	SB-12	3/14/2011	88	22 Y	< 0.17																			
SB-13-2.5	2.5	SB-13	3/15/2011	410	140 Y	< 0.16																			
SB-14-2.5	2.5	SB-14	3/15/2011	800	230 Y	< 0.17																			
SB-14-7.5	7.5	SB-14	3/15/2011	360	150 Y	< 0.17																			
SB-15-2.5	2.5	SB-15	2/18/2011	600	130 Y	< 0.17																			
SB-15-4.5	4.5	SB-15	3/15/2011	410	230 Y	< 0.19																			
SB-15-12.5	12.5	SB-15	3/15/2011	210	98 Y	0.28 Y	< 4.0	< 4.0	< 4.0	< 4.0															
SB-16-2.5	2.5	SB-16	3/16/2011	390	110 Y	< 0.15																			
SB-16-7.5	7.5	SB-16	3/16/2011	22	6.1 Y	< 0.19																			
SB-16-12.5	12.5	SB-16	3/16/2011	7.4	3.4 Y	< 0.15																			
SB-17-2.5	2.5	SB-17	3/16/2011	230	82 Y	< 0.16																			
SB-17-6.0	6.0	SB-17	3/16/2011	17	6.8 Y	< 0.18	-																		
SB-17-12.5	12.5	SB-17	3/16/2011	58	15 Y	< 0.17																			
SB-18-2.5	2.5	SB-18	3/17/2011	240	48 Y	< 0.17																			
SB-18-7.0	7.0	SB-18	3/17/2011	71	16 Y	< 0.20																			
SB-18-12.5	12.5		3/17/2011	1,800	390 Y	1.4 Y																			
SB-19-2.5	2.5		3/17/2011	290	77 Y	< 0.17																			
SB-19-7.5	7.5		3/17/2011	920	380 Y	< 0.20	< 4.1	< 4.1	< 4.1	< 4.1	39	8.6	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 330	< 330	< 330	< 330	< 3,600
SB-19-12.5	12.5	SB-19	3/17/2011	490	310 Y	1.4 Y																			
SB-20-1.5	1.5	SB-20	3/17/2011	410	170 Y	< 0.21																			
SB-20-8.5	8.5	SB-20	3/17/2011	170	76 Y	< 0.19																			
SB-20-12.5	12.5	SB-20	3/17/2011	410	130 Y	< 0.17																			
SB-21-2.5	2.5	SB-21	3/17/2011	61	34 Y	< 0.17																			
SB-21-8.5	8.5	SB-21	3/17/2011	530	150 Y	< 0.15																			
SB-21-12.5	12.5	SB-21	3/17/2011	790	210 Y	4.1 Y																			
SB-22-2.5	2.5	SB-22	3/17/2011	540	310 Y	< 0.18																			
SB-22-7.0	7.0	SB-22	3/17/2011	< 5.0	1.0 Y	1.2																			
SB-22-12.5	12.5	SB-22	3/17/2011	420	100 Y	0.44																			

Table 1 Summary of Analytical Results for Soil - Petroleum Hydrocarbons, VOCs, and SVOCs Proposed 64th and Christie Avenue Residential Building 6340 and 6390 Christie Avenue Emeryville, CA

	Cample												VO	Cs									SVOCs		
Sample ID	Sample Depth	Sample	Date	TPHmo	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	Acetone	2-Ba	n-Bb	sec-Bb	tert-Bb	Pbz	Naph	Isopb	1,2,4-TMB	1,3,5-TMB	Fluor	Naph	2-Mnaph	Phen	Pyrene
•	(ft bgs)	Location		(mg/Kg)	(mg/Kg)	(mg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	μg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(μg/Kg)	(μg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(μg/Kg)	(μg/Kg)	(µg/Kg)	(µg/Kg)
SB-23-2.5	2.5	SB-23	3/17/2011	160	48 Y	0.51 Y																			
SB-23-7.0	7.0	SB-23	3/17/2011	35	41 Y	< 0.16																			
SB-23-12.5	12.5	SB-23	3/17/2011	230	91 Y	0.39 Y				1				1							-				
SB-24-1.5	1.5	SB-24	3/16/2011	850	740 Y	560 Y				-				-											
SB-24-5.5	5.5	SB-24	3/16/2011	510	74 Y	1.2 Y																			
SB-24-12.0	12.0	SB-24	3/16/2011	990	260 Y	0.79																			
SB-25-2.5	2.5	SB-25	3/16/2011	430	120 Y	< 0.17																			
SB-25-7.5	7.5	SB-25	3/16/2011	500	110 Y	< 0.18	< 4.5	< 4.5	< 4.5	< 4.5	< 18	< 9.1	< 4.5	< 4.5	< 4.5	< 4.5	13	< 4.5	< 4.5	< 4.5	< 67	150	< 67	< 67	74
SB-25-12.5	12.5	SB-25	3/16/2011	1,000	340 Y	0.53 Y																			
SB-26-1.5	1.5	SB-26	3/17/2011	640	170 Y	4.3 Y	41	< 3.9	5.3	4.4															
SB-26-6.5	6.5	SB-26	3/17/2011	270	95 Y	1.5 Y	< 4.5	< 4.5	< 4.5	< 4.5															
SB-26-12.5	12.5	SB-26	3/17/2011	280	69 Y	5.2 Y	15	9.6	10	31															
SB-26-20.0	20.0	SB-26	3/17/2011	80	44 Y	0.43 Y	< 4.1	< 4.1	< 4.1	< 4.1															
SB-27-2.5	2.5	SB-27	3/16/2011	94	16 Y	0.90 Y																			
SB-27-7.5	7.5	SB-27	3/16/2011	290	430 Y	0.46 Y																			
SB-27-12.5	12.5	SB-27	3/16/2011	79	30 Y	4.7																			
SB-28-1.5 SB-28-7.5	1.5 7.5	SB-28 SB-28	3/17/2011	690	170 Y	0.34 Y	< 3.9	< 3.9	< 3.9 < 4.3	< 3.9															
SB-28-12.5	12.5	SB-28	3/17/2011	< 5.0 880	< 1.0 380 Y	< 0.14	< 4.3 < 3.8	< 4.3 3.8	< 3.8	< 4.3 < 3.8															
SB-28-16.0	16.0	SB-28	3/17/2011	11	6.7 Y	< 0.16	< 3.9	< 3.9	< 3.9	< 3.9															
SB-29-2.5	2.5	SB-29	3/16/2011	910	920 Y	710 Y	< 250	< 250	2,000	< 250															
SB-29-7.5	7.5	SB-29	3/16/2011	550	580 Y	9,700 Y	< 6,400	< 6,400	75,000	18,000															
SB-29-12.5	12.5	SB-29	3/16/2011	400	260 Y	2.6 Y	< 5.3	< 5.3	< 5.3	8.2															
SB-29-16.0	16.0	SB-29	3/16/2011	9.0	5.7 Y	< 0.18	< 6.2	< 6.2	< 6.2	< 6.2															
SB-30-2.0	2.0	SB-30	3/17/2011	49	49	740 Y	1,700	< 270	6,200	5,150															
SB-30-8.5	8.5	SB-30	3/17/2011	720	280 Y	680 Y	< 220	< 220	1,300	3,900	< 860	< 430	5,000	1,800	720	1,500	880	1,000	5,000	1,800	< 66	6,000	7,600	63	< 66
SB-30-12.5	12.5	SB-30	3/17/2011	180	120 Y	46 Y	< 4.1	< 4.1	39	145				-											
SB-30-15.5	15.5	SB-30	3/17/2011	69	53 Y	1.3 Y	< 4.3	< 4.3	< 4.3	< 4.3				-											
SB-31-2.5	2.5	SB-31	3/16/2011	330	69 Y	< 0.17	< 4.5	< 4.5	< 4.5	< 4.5															
SB-31-7.5	7.5	SB-31	3/16/2011	430	170 Y	6.2 Y	< 3.8	< 3.8	< 3.8	< 3.8				-											
SB-31-12.5	12.5	SB-31	3/16/2011	1,000	640 Y	1,600 Y	< 220	< 220	< 220	< 220															
SB-31-16.0	16.0	SB-31	3/16/2011	690	360 Y	460 Y	< 500	< 500	< 500	< 500															
SB-32-2.5	2.5	SB-32	3/16/2011	670	80 Y	< 0.17																			
SB-32-7.5	7.5	SB-32	3/16/2011	220	93 Y	3.1 Y																			
SB-32-11.0	11.0	SB-32	3/16/2011	3,300	3,100 Y	2.3 Y																			
SB-33-2.5	2.5	SB-33	3/17/2011	12	4.1 Y	< 0.16																			
SB-33-8.5	8.5	SB-33	3/17/2011	300	180 Y	2.2 Y																			
SB-33-12.5	12.5	SB-33	3/17/2011	33	41 Y	< 0.18																			
SB-34-2.5	2.5	SB-34	3/17/2011	440	130 Y	0.36 Y																			
SB-34-8.5	8.5	SB-34	3/17/2011	380	510 Y	50 Y																			
SB-34-10.5 SB-35-2.5	10.5	SB-34	3/17/2011	2,300	3,600	11 Y																			
ა p- ა≎-∠.5	2.5	SB-35		490 1,300	150 Y 490 Y	< 0.15 110 Y	< 200	< 200	< 200	< 200	 < 790	< 390	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	 < 670	 < 670	 < 670	 < 670	1,100
SB-35-8.5	8.5	SB-35	3/17/2011																						

Table 1

Summary of Analytical Results for Soil - Petroleum Hydrocarbons, VOCs, and SVOCs Proposed 64th and Christie Avenue Residential Building 6340 and 6390 Christie Avenue Emeryville, CA

	Sample			TPHmo	TPHd	TPHg							VO	Cs									SVOCs		
Sample ID	Depth	Sample	Date	TPHIIIO	IPHU	irng	Benzene	Toluene	Ethylbenzene	Xylenes	Acetone	2-Ba	n-Bb	sec-Bb	tert-Bb	Pbz	Naph	Isopb	1,2,4-TMB	1,3,5-TMB	Fluor	Naph	2-Mnaph	Phen	Pyrene
	(ft bgs)	Location		(mg/Kg)	(mg/Kg)	(mg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)		(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)	(µg/Kg)
SB-36-2.5	2.5	SB-36	3/15/2011	160	35 Y	< 0.16																			
SB-36-6.5	6.5	SB-36	3/15/2011	290	130 Y	< 0.19	< 4.7	< 4.7	< 4.7	< 4.7															
SB-36-12.5	12.5	SB-36	3/15/2011	260	180	1.8 Y		-																	
SB-37-2.5	2.5	SB-37	3/15/2011	480	99 Y	0.17 Y																			
SB-37-7.5	7.5	SB-37	3/15/2011	8.6	2.0 Y	< 0.16		-																	
SB-37-12.5	12.5	SB-37	3/15/2011	130	53 Y	< 0.15		-																	
SB-38-2.5	2.5	SB-38	3/15/2011	55	16 Y	< 0.16																			
SB-38-7.5	7.5	SB-38	3/15/2011	18,000	3,500 Y	< 0.18		-																	
SB-38-12.5	12.5	SB-38	3/15/2011	50	33	0.55 Y	< 4.0	< 4.0	< 4.0	< 4.0	< 16.0	< 6.9	< 4.0	< 4.0	< 4.0	< 4.0	5.3	< 4.0	7.8	< 4.0	< 66	< 66	< 66	< 66	< 66
SB-39-2.5	2.5	SB-39	3/15/2011	36	26 Y	< 0.15																			
SB-39-5.0	5.0	SB-39	3/15/2011	69	38 Y	< 0.15		-																	
SB-39-12.5	12.5	SB-39	3/15/2011	18	3.8 Y	< 0.17		-																	
SB-40-2.5	2.5	SB-40	3/15/2011	90	25 Y	< 0.17																			
SB-40-7.5	7.5	SB-40	3/15/2011	89	64 Y	0.19 Y	< 4.0	< 4.0	< 4.0	< 4.0	< 16.0	< 8.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 66	< 66	< 66	< 66	< 66
SB-40-12.5	12.5	SB-40	3/15/2011	56	47 Y	0.19 Y		-																	
SB-41-2.5	2.5	SB-41	3/15/2011	590	110 Y	< 0.16																			
SB-41-6.5	6.5	SB-41	3/15/2011	190	86 Y	< 0.16		-																	
SB-41-12.5	12.5	SB-41	3/15/2011	340	120 Y	< 0.18		-																	
Residen	tial Direct-Ex	xposure ES	5L ⁽¹⁾	1,800	540	540	0.12	320	2.3	150	14,000										2,300	31	2,300	1,700	3,400

Notes:

VOCs = Volatile Organic Compounds

SVOCs = Semi-volatile Organic Compounds

mg/kg = milligrams per kilogram

μg/kg = micrograms per kilogram

ft bgs = Feet below ground surface

< 0.15 = Not detected at or above the indicated laboratory reporting limit

ND = Not detected at or above the indicated laboratory reporting limit

-- = Not analyzed or not applicable

Y = Sample exhibits chromatographic pattern which does not resemble standard

TPHmo = Total petroleum hydrocarbons quantified as motor oil

TPHd = Total petroleum hydrocarbons quantified as diesel

TPHg = Total petroleum hydrocarbons quantified as gasoline

2-Ba = 2-Butanone

Bb = Butylbenzene

n-Bb = n-Butylbenzene

sec-Bb = sec-Butylbenzene

tert-Bb = tert-Butylbenzene

Pbz = Propylbenzene

Isopb = Isopropylbenzene

1,2,4-Tmb = 1,2,4-Trimethylbenzene

1,3,5-Tmb = 1,3,5-Trimethylbenzene

Fluor = Fluoranthene

Naph = Naphthalene

2-Mnaph = 2-Methylnaphthalene

Phen = Phenanthrene

(1) Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL): Direct Exposure for Residential Use (DERU); HQ = 1 for Non-Carcinogens (Table K-1).

Table 2
Summary of Analytical Results for Soil - Metals
Proposed 64th and Christie Avenue Residential Building
6340 and 6390 Christie Avenue
Emeryville, CA

Commis ID	Depth	Sample	D-4-	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Sample ID	(ft bgs)	Location	Date	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SB-7-2.5	2.5	SB-7	3/14/2011	2.1	5.5	440	0.42	0.61	41	8.4	72	210	0.090	< 0.25	62	< 0.50	< 0.25	< 0.50	33	290
SB-7-5.0	5.0	SB-7	3/14/2011	3.6	3.6	150	0.32	0.51	18	7.9	38	83	0.17	< 0.25	19	< 0.50	< 0.25	< 0.50	36	150
SB-7-12.0	12.0	SB-7	3/14/2011	0.94	8.9	69	0.38	0.62	62	9.6	35	48	0.83	< 0.25	54	< 0.50	0.32	< 0.50	45	110
SB-8-2.5	2.5	SB-8	3/14/2011	< 0.50	4.9	31	0.12	< 0.25	32	9.2	8.1	3.4	0.066	< 0.25	42	< 0.50	< 0.25	< 0.50	35	37
SB-8-6.5	6.5	SB-8	3/14/2011	0.89	4.3	170	0.40	0.43	40	10	25	80	0.15	< 0.25	68	< 0.50	< 0.25	< 0.50	39	140
SB-8-12.5	12.5	SB-8	3/14/2011	< 0.50	1.8	88	0.27	< 0.25	8.5	2.8	5.9	11	0.18	< 0.25	7.9	< 0.50	< 0.25	< 0.50	15	25
SB-9-2.5	2.5	SB-9	3/14/2011	2.2	8.8	150	0.34	1.5	36	8.8	200	95	0.32	0.31	42	< 0.50	< 0.25	< 0.50	36	250
SB-9-6.5	6.5	SB-9	3/14/2011	1.1	3.2	150	0.52	< 0.25	39	8.3	24	11	0.23	< 0.25	36	< 0.50	< 0.25	< 0.50	43	43
SB-9-12.5	12.5	SB-9	3/14/2011	1.4	3.2	190	0.16	0.35	8.5	5.2	12	36	0.12	< 0.25	8.2	< 0.50	< 0.25	< 0.50	25	270
SB-10-2.5	2.5	SB-10	3/15/2011	13	19	680	0.41	1.0	54	16	430	260	0.93	6.4	69	< 0.50	0.47	< 0.50	41	780
SB-10-5.5	5.5	SB-10	3/15/2011	5.1	3.5	88	0.34	< 0.25	28	6.8	11	4.1	0.034	0.63	31	< 0.50	< 0.25	< 0.50	25	30
SB-10-12.5	12.5	SB-10	3/15/2011	11	5.1	89	0.42	< 0.25	73	11	24	37	0.21	0.53	61	< 0.50	< 0.25	< 0.50	53	90
SB-11-2.5	2.5	SB-11	3/17/2011	6.9	3.7	130	0.50	0.28	37	9.7	34	20	0.056	0.64	54	< 0.50	< 0.25	< 0.50	52	49
SB-11-7.5	7.5	SB-11	3/17/2011	4.0	3.4	200	0.44	< 0.25	39	12	16	25	0.099	0.42	53	< 0.50	< 0.25	< 0.50	36	49
SB-11-12.5	12.5	SB-11	3/17/2011	5.7	8.0	190	0.47	0.31	37	9.9	51	88	0.29	1.0	35	< 0.50	0.30	< 0.50	41	280
SB-12-2.5	2.5	SB-12	3/14/2011	5.6	20	190	0.30	0.95	36	8.1	170	180	0.69	0.92	37	< 0.50	< 0.25	< 0.50	32	260
SB-12-7.5	7.5	SB-12	3/14/2011	2.9	5.4	180	0.38	0.82	35	8.7	160	160	0.26	0.56	42	< 0.50	0.42	< 0.50	33	380
SB-12-12.5	12.5	SB-12	3/14/2011	1.1	5.1	210	0.42	0.28	47	9.3	27	130	0.17	< 0.25	42	< 0.50	< 0.25	< 0.50	36	140
SB-13-2.5	2.5	SB-13	3/15/2011	4.2	28	230	0.32	1.0	34	9.4	190	230	0.37	1.1	39	< 0.50	0.26	< 0.50	33	340
SB-14-2.5	2.5	SB-14	3/15/2011	12	17	270	0.46	0.86	58	13	150	160	0.40	1.1	57	< 0.50	< 0.25	< 0.50	40	350
SB-14-7.5	7.5	SB-14	3/15/2011	20	12	210	0.37	0.83	50	9.7	730	450	7.3	1.0	51	< 0.50	0.56	< 0.50	35	960
SB-15-2.5	2.5	SB-15	3/15/2011	15	12	260	0.38	3.8	39	9.9	230	260	0.34	1.4	50	< 0.50	0.29	< 0.50	33	500
SB-15-4.5	4.5	SB-15	3/15/2011	13	3.8	160	0.21	1.5	26	5.7	120	250	0.16	1.1	22	< 0.50	0.80	< 0.50	15	260
SB-15-12.5	12.5	SB-15	3/15/2011	5.1	1.4	65	0.23	< 0.25	20	4.8	29	20	0.081	0.66	25	< 0.50	< 0.25	< 0.50	17	82
SB-16-2.5	2.5	SB-16	3/16/2011	10	15	280	0.36	1.2	44	13	190	230	1.6	2.8	49	<0.50	0.44	< 0.50	35	420
SB-16-7.5	7.5	SB-16	3/16/2011	6.1	3.7	190	0.49	0.44	42	14	56	48	1.0	0.74	41	< 0.50	< 0.25	< 0.50	39	120
SB-16-12.5	12.5	SB-16	3/16/2011	7.1	9.8	110	0.46	< 0.25	31	11	180	6.6	0.11	0.76	42	< 0.50	< 0.25	< 0.50	34	46
SB-17-2.5	2.5	SB-17	3/16/2011	12	27	320	0.36	4.7	40	9.7	550	430	5.2	0.80	38	1.5	0.46	< 0.50	30	630
SB-17-6.0	6.0	SB-17	3/16/2011	4.4	3.2	130	0.42	< 0.25	42	17	19	6.4	0.041	0.47	36	< 0.50	< 0.25	< 0.50	37	32
SB-17-12.5	12.5	SB-17	3/16/2011	< 0.50	2.4	29	0.15	< 0.25	9.3	2.2	12	19	0.13	0.35	13	< 0.50	< 0.25	1.4	11	25
SB-18-2.5	2.5	SB-18	3/17/2011	5.9	68	290	0.27	11	38	6.9	230	170	0.56	0.66	32	2.8	0.30	< 0.50	24	430
SB-18-7.0	7.0	SB-18	3/17/2011	1.1	2.8	72	0.25	< 0.25	15	3.7	9.6	24	0.15	< 0.25	18	< 0.50	< 0.25	1.2	17	27
SB-18-12.5	12.5	SB-18	3/17/2011	7.4	5.5	170	0.40	0.33	66	9.5	25	14	0.26	0.36	59	< 0.25	< 0.50	< 0.50	48	160
SB-19-2.5	2.5	SB-19	3/17/2011	13	120	640	0.28	3.9	59	8.0	790	330	0.29	0.60	49	< 0.50	0.40	< 0.50	32	1,500
SB-19-7.5	7.5	SB-19	3/17/2011	12	16	430	0.56	1.1	33	7.3	110	250	0.35	1.1	47	< 0.50	< 0.25	< 0.50	53	190
SB-19-12.5	12.5	SB-19	3/17/2011	4.4	6.8	180	0.29	< 0.25	34	7.0	19	53	0.76	0.63	31	0.67	< 0.25	< 0.50	32	85

Table 2
Summary of Analytical Results for Soil - Metals
Proposed 64th and Christie Avenue Residential Building
6340 and 6390 Christie Avenue
Emeryville, CA

Sample ID	Depth	Sample	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Sample ID	(ft bgs)	Location	Date	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SB-20-1.5	1.5	SB-20	3/17/2011	9.5	23	200	0.28	1.0	35	8.0	200	180	0.62	0.73	39	< 0.50	< 0.25	< 0.50	32	240
SB-20-8.5	8.5	SB-20	3/17/2011	5.8	15	110	0.18	0.61	29	8.1	82	65	0.11	0.58	36	< 0.50	< 0.25	< 0.50	29	130
SB-20-12.5	12.5	SB-20	3/17/2011	5.2	7.7	150	0.36	< 0.25	41	12	43	35	0.28	0.64	47	< 0.50	< 0.25	< 0.50	33	81
SB-21-2.5	2.5	SB-21	3/17/2011	4.9	4.3	86	0.27	< 0.25	40	9.8	18	44	0.066	0.33	42	< 0.50	< 0.25	< 0.50	34	62
SB-21-8.5	8.5	SB-21	3/17/2011	10	5.8	120	0.33	1.2	37	8.3	52	140	0.25	0.76	37	< 0.50	< 0.25	< 0.50	36	430
SB-21-12.5	12.5	SB-21	3/17/2011	12	4.2	110	0.25	0.43	30	7.7	77	84	0.39	1.1	31	< 0.50	< 0.25	< 0.50	30	100
SB-22-2.5	2.5	SB-22	3/17/2011	8.8	98	630	0.34	2.5	40	11	200	190	0.35	4.5	45	< 0.50	< 0.25	< 0.50	33	560
SB-22-7.0	7.0	SB-22	3/17/2011	3.1	2.7	170	0.41	< 0.25	36	6.3	14	94	0.10	0.32	34	< 0.50	< 0.25	< 0.50	34	54
SB-22-12.5	12.5	SB-22	3/17/2011	6.9	6.9	180	0.42	0.45	35	8.9	78	130	2.0	2.3	32	< 0.50	< 0.25	< 0.50	34	140
SB-23-2.5	2.5	SB-23	3/17/2011	9.5	8.7	160	0.48	0.52	35	8.8	140	83	0.18	0.88	35	< 0.50	< 0.25	< 0.50	34	94
SB-23-7.0	7.0	SB-23	3/17/2011	4.0	3.0	130	0.45	0.32	40	8.4	16	110	0.048	0.72	35	< 0.50	< 0.25	< 0.50	37	54
SB-23-12.5	12.5	SB-23	3/17/2011	2.2	6.0	66	0.21	0.34	24	6.5	8.3	12	0.035	0.53	24	< 0.50	< 0.25	< 0.50	28	23
SB-24-1.5	1.5	SB-24	3/16/2011	9.2	6.8	200	0.66	0.38	21	11	49	64	0.72	1.5	29	< 0.50	< 0.25	< 0.50	29	130
SB-24-5.5	5.5	SB-24	3/16/2011	5.7	8.9	180	0.28	1.4	41	6.9	29	39	0.24	1.1	33	< 0.50	< 0.25	< 0.50	27	110
SB-24-12.0	12.0	SB-24	3/16/2011	2.0	1.4	28	0.22	< 0.25	10	2.4	5.4	21	0.42	0.34	6.9	< 0.50	< 0.25	< 0.50	8.0	31
SB-25-2.5	2.5	SB-25	3/16/2011	10	7.8	190	0.44	0.71	36	13	89	150	0.52	1.4	43	< 0.50	0.33	< 0.50	36	240
SB-25-7.5	7.5	SB-25	3/16/2011	7.9	7.1	250	0.42	1.3	35	14	120	130	0.37	0.87	41	< 0.50	< 0.25	< 0.50	35	300
SB-25-12.5	12.5	SB-25	3/16/2011	8.7	4.5	200	0.33	0.96	37	7.1	360	310	0.11	1.2	30	< 0.50	0.58	0.78	27	340
SB-27-2.5	2.5	SB-27	3/16/2011	2.8	1.8	170	0.63	< 0.25	140	4.2	33	9.9	1.4	0.55	16	< 0.50	< 0.25	< 0.50	17	44
SB-27-7.5	7.5	SB-27	3/16/2011	5.8	3.6	190	0.50	< 0.25	53	16	23	91	0.25	0.91	110	< 0.50	< 0.25	< 0.50	40	71
SB-27-12.5	12.5	SB-27	3/16/2011	6.1	4.5	120	0.33	< 0.25	35	8.1	21	11	0.14	1.2	36	< 0.50	< 0.25	< 0.50	34	44
SB-32-2.5	2.5	SB-32	3/16/2011	5.3	2.3	130	0.25	1.3	35	6.8	120	110	2.5	2.1	32	< 0.50	< 0.25	< 0.50	28	210
SB-32-7.5	7.5	SB-32	3/16/2011	8.1	6.5	760	0.40	1.7	37	8.8	60	800	0.79	1.1	32	< 0.50	< 0.25	< 0.50	40	340
SB-32-11.0	11.0	SB-32	3/16/2011	5.7	3.1	180	0.41	< 0.25	80	12	18	16	0.22	0.55	31	< 0.50	< 0.25	0.96	36	51
SB-33-2.5	2.5	SB-33	3/17/2011	6.9	4.1	200	0.46	0.59	44	18	25	6.7	0.11	1.2	64	< 0.50	< 0.25	< 0.50	51	44
SB-33-8.5	8.5	SB-33	3/17/2011	8.9	6.6	140	0.42	0.38	27	6.8	72	69	0.32	1.2	22	< 0.50	< 0.25	< 0.50	37	110
SB-33-12.5	12.5	SB-33	3/17/2011	5.3	5.6	110	0.40	< 0.25	27	12	14	6.7	0.074	0.91	34	< 0.50	< 0.25	< 0.50	32	28
SB-34-2.5	2.5	SB-34	3/17/2011	20	14	170	32	0.73	31	9.2	160	680	0.19	0.63	34	< 0.50	< 0.25	< 0.50	38	250
SB-34-8.5	8.5	SB-34	3/17/2011	4.1	3.1	120	0.47	< 0.25	27	6.5	18	24	0.19	0.54	22	< 0.50	< 0.25	< 0.50	28	36
SB-34-10.5	10.5	SB-34	3/17/2011	4.2	2.4	93	0.39	0.49	24	3.3	36	250	0.42	0.78	15	< 0.50	< 0.25	< 0.50	12	100
SB-35-2.5	2.5	SB-35	3/17/2011	8.2	7.7	160	0.43	0.31	28	10	70	78	0.54	0.68	33	< 0.50	< 0.25	< 0.50	44	120
SB-35-8.5	8.5	SB-35	3/17/2011	5.5	3.1	67	0.28	0.46	14	5.8	26	17	0.20	0.60	14	< 0.50	< 0.25	< 0.50	20	56
SB-35-12.5	12.5	SB-35	3/17/2011	6.1	3.1	220	0.26	0.43	19	4.3	28	65	0.21	0.97	23	< 0.50	< 0.25	< 0.50	23	200
SB-36-2.5	2.5	SB-36	3/15/2011	11	3.6	180	0.46	< 0.25	38	13	68	86	0.28	0.76	42	< 0.50	< 0.25	< 0.50	46	180
SB-36-6.5	6.5	SB-36	3/15/2011	8.0	5.6	190	0.27	0.39	31	7.2	55	88	0.24	0.84	33	< 0.50	< 0.25	< 0.50	23	240
SB-36-12.5	12.5	SB-36	3/15/2011	15	24	130	0.30	6.1	64	8.5	88	160	0.76	2.6	42	< 0.50	1.5	< 0.50	32	2,600

Table 2 Summary of Analytical Results for Soil - Metals Proposed 64th and Christie Avenue Residential Building 6340 and 6390 Christie Avenue Emeryville, CA

Sample ID	Depth (ft bgs)	Sample Location	Date	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
	(it bgs)	Location		(IIIg/kg)	(IIIg/kg)	(IIIg/kg)	(IIIg/kg)	(IIIg/kg)	(ilig/kg)	(IIIg/kg)	(IIIg/kg)	(IIIg/kg)	(IIIg/kg)	(ilig/kg)	(IIIg/kg)	(IIIg/kg)	(IIIg/kg)	(ilig/kg)	(IIIg/kg)	(IIIg/kg)
SB-37-2.5	2.5	SB-37	3/15/2011	6.6	4.7	210	0.46	< 0.25	28	8.7	37	72	0.34	0.55	37	< 0.50	< 0.25	< 0.50	28	190
SB-37-7.5	7.5	SB-37	3/15/2011	8.4	5.6	180	0.59	< 0.25	39	11	27	82	0.071	0.73	41	< 0.50	< 0.25	< 0.50	50	79
SB-37-12.5	12.5	SB-37	3/15/2011	15	7.0	390	0.27	1.2	59	7.5	210	1,500	< 0.020	2.0	35	< 0.50	< 0.25	< 0.50	42	1,300
SB-38-2.5	2.5	SB-38	3/15/2011	5.3	9.8	310	0.30	0.94	28	6.3	67	740	0.51	0.98	27	< 0.50	0.37	< 0.50	27	420
SB-38-7.5	7.5	SB-38	3/15/2011	26	4.5	200	0.30	1.1	38	13	44	240	< 0.020	2.0	43	< 0.50	0.30	< 0.50	37	420
SB-38-12.5	12.5	SB-38	3/15/2011	6.6	6.6	110	0.34	3.4	55	14	17	9.0	0.040	1.0	54	< 0.50	< 0.25	< 0.50	47	57
SB-39-2.5	2.5	SB-39	3/15/2011	3.9	12	62	0.27	< 0.25	21	7.8	13	3.1	0.060	1.4	32	< 0.50	< 0.25	1.5	24	33
SB-39-5.0	5.0	SB-39	3/15/2011	5.1	2.6	220	0.53	0.28	38	8.0	21	19	0.20	0.81	37	< 0.50	< 0.25	1.4	37	60
SB-39-12.5	12.5	SB-39	3/15/2011	5.2	4.4	130	0.36	0.44	35	7.2	12	6.0	0.040	1.0	31	< 0.50	< 0.25	< 0.50	39	38
SB-40-2.5	2.5	SB-40	3/15/2011	6.2	4.9	280	0.49	< 0.25	28	7.2	26	40	0.33	0.61	29	< 0.50	< 0.25	< 0.50	28	89
SB-40-7.5	7.5	SB-40	3/15/2011	6.6	2.2	130	0.53	< 0.25	49	11	16	5.0	0.049	0.42	70	< 0.50	< 0.25	< 0.50	39	28
SB-40-12.5	12.5	SB-40	3/15/2011	5.1	5.9	69	0.29	0.69	36	6.2	14	14	0.14	0.69	28	< 0.50	< 0.25	< 0.50	31	840
SB-41-2.5	2.5	SB-41	3/15/2011	9.1	5.3	300	0.45	0.39	46	9.7	190	200	0.84	0.75	52	< 0.50	0.39	< 0.50	36	300
SB-41-6.5	6.5	SB-41	3/15/2011	6.5	6.4	380	0.59	< 0.25	33	9.9	25	29	0.43	0.73	35	< 0.50	< 0.25	< 0.50	34	58
SB-41-12.5	12.5	SB-41	3/15/2011	8.1	2.5	210	0.47	< 0.25	17	7.6	17	18	0.15	1.2	20	< 0.50	< 0.25	< 0.50	33	57
Reside	ential Direc	t-Exposure I	ESL ⁽¹⁾	31	22	15000	150	39		1400	31000	260	6.7	390	1500	390	390	6	78	23,000
	TTLC value		-	500	500	10,000	75	100	2,500	8,000	2,500	1.000	20	3,500	2,000	100	500	700	2,400	5,000

Notes:

ft bgs = Feet below ground surface

mg/kg = Milligrams per kilogram

< 0.25 = Not detected at or above the indicated laboratory reporting limit

^{-- =} Not applicable

⁽¹⁾ Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL): Direct Exposure for Residential Use (DERU); HQ = 1 for Non-Carcinogens (Table K-1).

⁽²⁾ TTLC = Total Threshold Limit Concentration

Table 3 Summary of Analytical Results for Groundwater - Petroleum Hydrocarbons and VOCs Proposed 64th and Christie Avenue Residential Building 6340 and 6390 Christie Avenue Emeryville, CA

											VOCs						
Sample ID	Date	TPHmo (mg/L)	TPHd (mg/L)	TPHg (mg/L)	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	sec-Bb	p-Iso T	Isopb	n-Bb	Pbz	Naph	1,2,4-Tmb	1,3,5-Tmb
		(ilig/L)	(mg/L)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
GW-8	3/16/2011	< 0.3 / 1.4	< 0.050 / 1.000 Y	< 0.050	< 0.5	< 0.5	< 0.5	< 0.5	2.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
GW-9	3/16/2011	< 0.3 / 3.9	< 0.050 / 3.600 Y	< 0.050	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.8	< 0.5
GW-10	3/15/2011	< 0.3 / 4.8	< 0.050 / 4.900 Y	< 0.050	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5
GW-11	3/15/2011	< 0.3 / 6.6	0.130 Y / 5.900 Y	0.18	< 0.5	2.0	< 0.5	0.6	< 0.5	0.6	< 0.5	< 0.5	< 0.5	0.7	3.1	1.9	< 0.5
GW-12	3/15/2011	< 0.3 / 11.0	0.130 Y / 10.000 Y	0.150 Y	< 0.5	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 0.5
GW-13	3/15/2011	< 0.3 / 3.5	0.120 Y / 3.300 Y	0.420	< 0.5	1.5	1.0	9.9	< 0.5	1.5	2.5	0.7	2.2	1.8	< 0.5	36.0	9.4
TB-1	3/15/2011			< 50	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5
Non-Drinking Wa	-	2.5	2.5	5.0	20,000	400	300	5,300	1,800						210		

Notes:

mg/L = Milligrams per liter

μg/L = Micrograms per liter

Y = Sample exhibits chromatographic pattern which does not resemble standard

- < 300 / 1,400 = Indicates sample results with / without silica gel cleanup
- < 0.5 = Not detected at or above the indicated laboratory reporting limit
- -- = Not Analyzed

TPHmo = Total petroleum hydrocarbons quantified as motor oil

TPHd = Total petroleum hydrocarbons quantified as diesel

TPHg = Total petroleum hydrocarbons quantified as gasoline

MTBE = Methyl Tert-Butyl Ether

sec-Bb = sec-Butylbenzene

p-lso T = para-Isopropyl Toluene

Isopb = Isopropylbenzene

n-Bb = n-Butylbenzene

Pbz = Propyl Benzene

Naph = Naphthalene

1,2,4-Tmb = 1,2,4-Trimethylbenzene

1,3,5-Tmb = 1,3,5-Trimethylbenzene

(1) California Regional Water Quality Control Board, San Francisco Region (RWQCB) Environmental Screening Level (ESL), Non-Drinking Water Gross Contamination Ceiling Levels (Table I-2; May 2008

24108202R003.xlsx

Table 4
Summary of Analytical Results for Groundwater - Dissolved Metals
Proposed 64th and Christie Avenue Residential Building
6340 and 6390 Christie Avenue
Emeryville, CA

Sample ID	Date	Antimony (µg/L)	Arsenic (µg/L)	Barium (µg/L)	Beryllium (µg/L)	Cadmium (µg/L)	Chromium (µg/L)	Cobalt (µg/L)	Copper (µg/L)	Lead (µg/L)	Mercury (µg/L)	Molybdenum (µg/L)	Nickel (µg/L)	Selenium (µg/L)	Silver (µg/L)	Thallium (µg/L)	Vanadium (µg/L)	Zinc (µg/L)
GW-8	3/16/2011	< 10	< 7.1	400	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	24	12	< 10	< 5.0	< 10	9.8	< 20
GW-9	3/16/2011	< 10	< 7.1	690	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 5.0	7.5	< 10	< 5.0	< 10	< 5.0	< 20
GW-10	3/15/2011	< 10	< 7.1	190	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	9.3	11	< 10	< 5.0	< 10	10	75
GW-11	3/15/2011	< 10	< 7.1	1,400	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 0.20	< 5.0	6.0	< 10	< 5.0	< 10	< 5.0	< 20
GW-12	3/15/2011	< 10	25	4,500	< 2.0	< 5.0	< 5.0	5.6	< 5.0	< 5.0	< 0.20	< 5.0	< 5.0	< 10	< 5.0	< 10	6.0	37
GW-13	3/15/2011	< 10	< 7.1	210	< 2.0	< 5.0	< 5.0	< 5.0	< 5.0	12	< 0.20	< 5.0	9.7	< 10	< 5.0	< 10	< 5.0	36
	king Water Level ⁽¹⁾	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000

Notes:

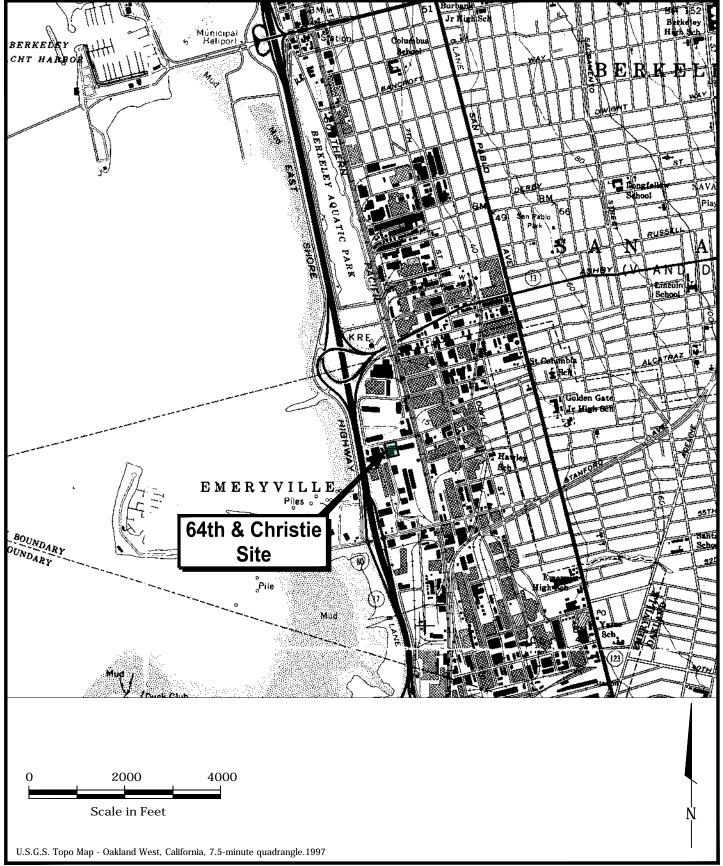
μg/L = Micrograms per liter

24108202R003.xisx 6/1/2011

< 10 =Not detected at or above the indicated laboratory reporting limit

⁽¹⁾ California Regional Water Quality Control Board, San Francisco Region (RWQCB) Environmental Screening Level (ESL), Non-Drinking Water Gross Contamination Ceiling Levels (Table I-2;

PLATES





Site Location Map

Pre-Excavation Investigation and Preliminary Soil Characterization Proposed 64th and Christie Residential Building 6340 and 6390 Christie Avenue Emeryville, California

PLATE

1

6/11

DATE





DRAWING NUMBER

WWM

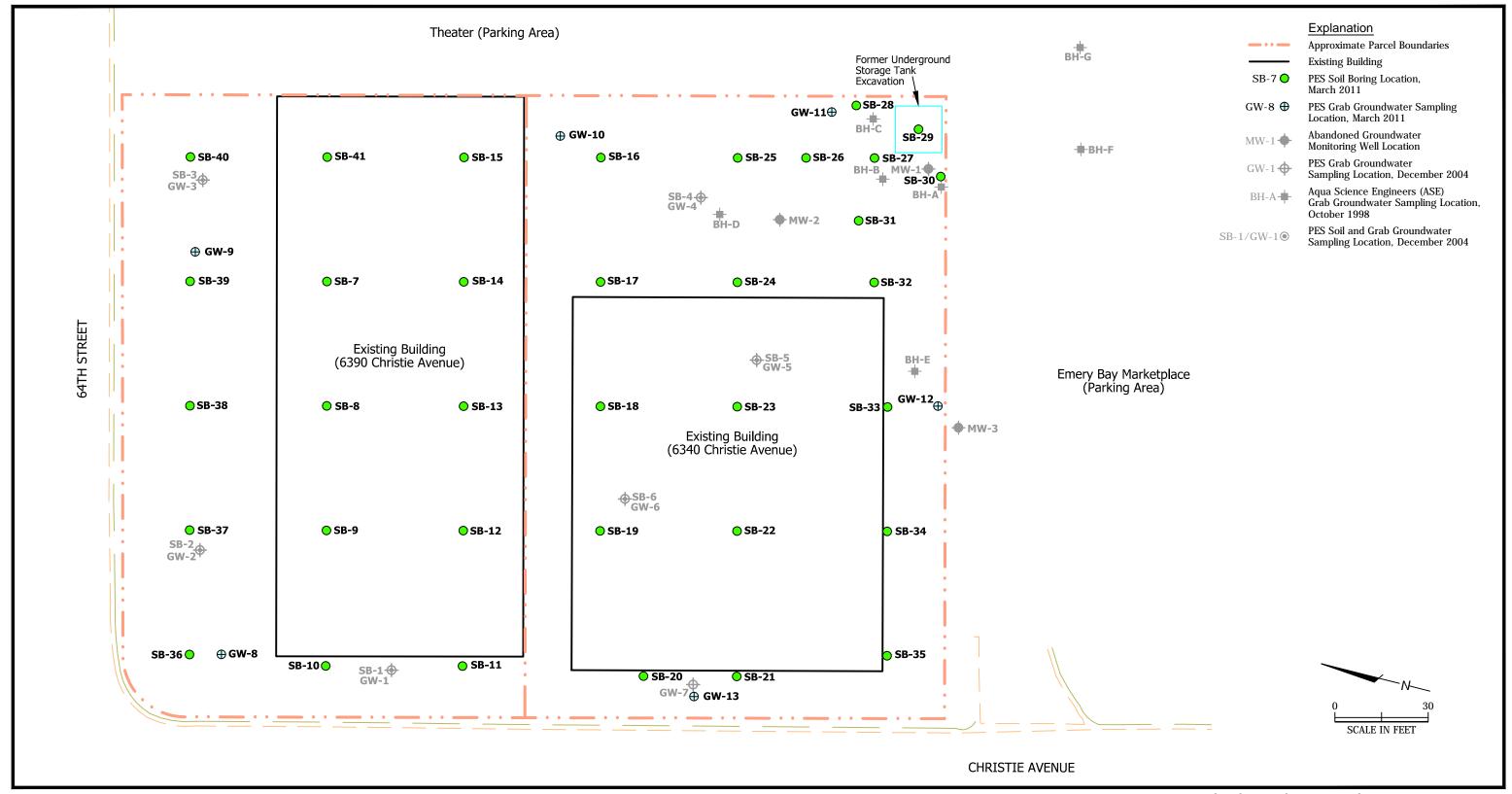
REVIEWED BY

Site Plan and Vicinity Map
Pre-Excavation Investigation
and Preliminary Soil Characterization
Proposed 64th and Christie Residential Building
6340 and 6390 Christie Avenue
Emeryville, California

PLATE

6/11

JOB NUMBER





Soil and Groundwater Sampling Locations Pre-Excavation Investigation and Preliminary Soil Characterization Proposed 64th and Christie Residential Building 6340 and 6390 Christie Avenue Emeryville, California

PLATE 3

WWM241.082.02.003 241-08202003_I-C_3 JOB NUMBER DRAWING NUMBER REVIEWED BY

6/11

APPENDIX A

ALAMEDA COUNTY PUBLIC WORKS AGENCY DRILLING PERMIT

Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 03/03/2011 By jamesy

Permits Valid from 03/14/2011 to 03/18/2011

Application Id: 1298938008592 City of Project Site:Emeryville

Site Location: South East Corner of 64th St & 6340 and 6390 Christie Avenue.

Project Start Date: 03/14/2011 Completion Date:03/18/2011

Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant: PES Environmental, Inc. - Simmons Ken Phone: 415-899-1600

1682 Novato Blvd, Suite 100, Novato, CA 94947

Property Owner: Rockwood Christie LLC c/o TMG Partners Phone: -- 100 Bush Street, 26th floor, San Francisco, CA 94104

Client: ** same as Property Owner **

Contact: Ken Simmons Phone: 415-892-8763 x276

Cell: 415-497-2741

Total Due: \$265.00
Receipt Number: WR2011-0061 Total Amount Paid: \$265.00

Payer Name : PES Environmental Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 41 Boreholes

Driller: Gregg Drilling & Testing, Inc. - Lic #: 485165 - Method: DP Work Total: \$265.00

Specifications

 Permit
 Issued Dt
 Expire Dt
 #
 Hole Diam
 Max Depth

 Number
 Boreholes

 W2011 03/03/2011
 06/12/2011
 41
 2.00 in.
 16.00 ft

 0129

Specific Work Permit Conditions

- 1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
- 2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
- 3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
- 4. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

Alameda County Public Works Agency - Water Resources Well Permit

- 6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
- 7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

APPENDIX B

LITHOLOGIC LOGS

	MAJOR DIVIS	SIONS			TYPICAL NAMES
		CLEAN GRAVELS	GW		WELL-GRADED GRAVELS WITH OR WITHOUT SAND
200 SIEVE	GRAVELS MORE THAN HALF	WITH LESS THAN 15% FINES	GP		POORLY-GRADED GRAVELS WITH OR WITHOUT SAND
	COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	GRAVELS WITH	GM		SILTY GRAVELS WITH OR WITHOUT SAND
INED SOI		15% OR MORE FINES	GC		CLAYEY GRAVELS WITH OR WITHOUT SAND
COARSE-GRAINED SOILS HALF IS COARSER THAN NO		CLEAN SANDS	sw		WELL-GRADED SANDS WITH OR WITHOUT GRAVEL
	SANDS MORE THAN HALF	WITH LESS THAN 15% FINES	SP		POORLY-GRADED SANDS WITH OR WITHOUT GRAVEL
MORE THAN	COARSE FRACTION IS FINER THAN NO. 4 SIEVE SIZE	SANDS WITH 15%	SM		SILTY SANDS WITH OR WITHOUT GRAVEL
		OR MORE FINES	sc		CLAYEY SANDS WITH OR WITHOUT GRAVEL
SIEVE			ML		INORGANIC SILTS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
200		ID CLAYS 50% OR LESS	CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
LED SOILS			OL		ORGANIC SILTS OR CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
FINE-GRAINED SOILS HALF IS FINER THAN NO			мн		INORGANIC SILTS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
FI ORE THAN HA		ID CLAYS EATER THAN 50%	СН		INORGANIC CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
MORE			ОН		ORGANIC SILTS OR CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
	HIGHLY ORGAN	IC SOILS	PT	5 50 50 5 50 50 5 50 50	PEAT AND OTHER HIGHLY ORGANIC SOILS
	ABBREVIA	TION KEY			SYMBOLS KEY
PID (PP		Detector readings in pa headspace sample scre			No Soil Sample Recovered
BLOWS/	indicated on the l	drive sampler 6 inches ogs using sample drive unds falling 30 inches.			Partial Soil Sample Recovered Undisturbed Soil Sample Recovered
		ercent sand, percent sil	lt/clay	•	Soil Sample Submitted for Laboratory Analysis
(10,60,30	,				
(10,60,30 2.5YR 6		,	or Charts		Hydropunch Sample First Encountered Groundwater Level



Unified Soil Classification System Chart Proposed 64th and Christie Residential Building Emeryville, CA

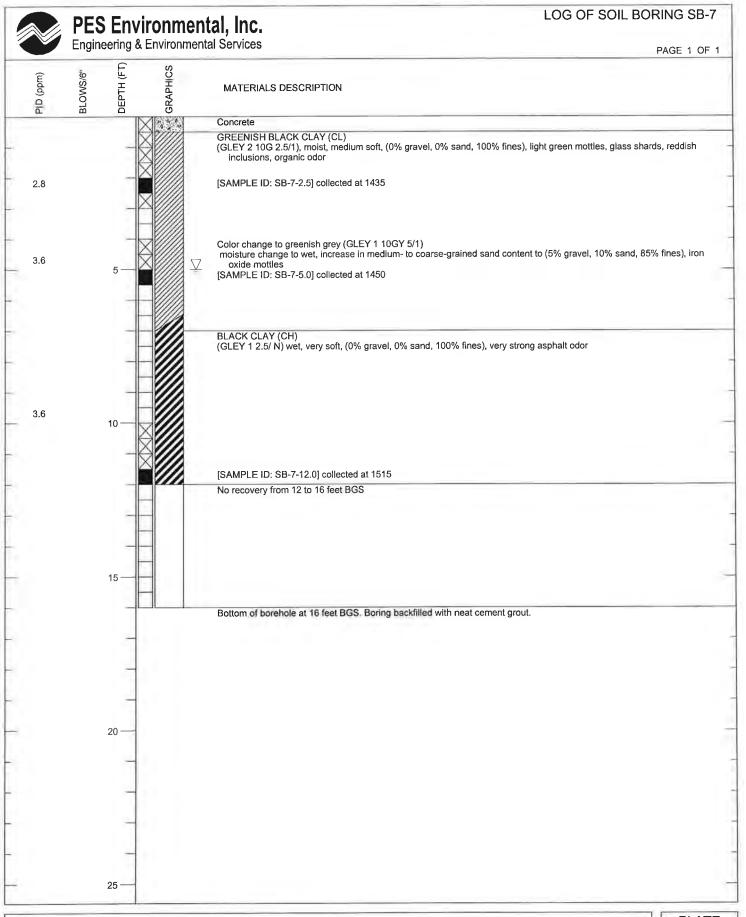
B-0

241.082.02.002

USCS Chart

PDG

05/11



PDG **REVIEWED BY PROJECT** Pre-Excavation Investigation LOCATION 64th Street and Christie Avenue DIAMETER OF HOLE 2-inch JOB NUMBER 241.082.02.002 TOTAL DEPTH OF HOLE 16 feet GEOLOGIST/ENGINEER Ken Simmons 3/14/11 DATE STARTED Direct Push DRILL RIG DATE COMPLETED 3/14/11

PLATE

B-1

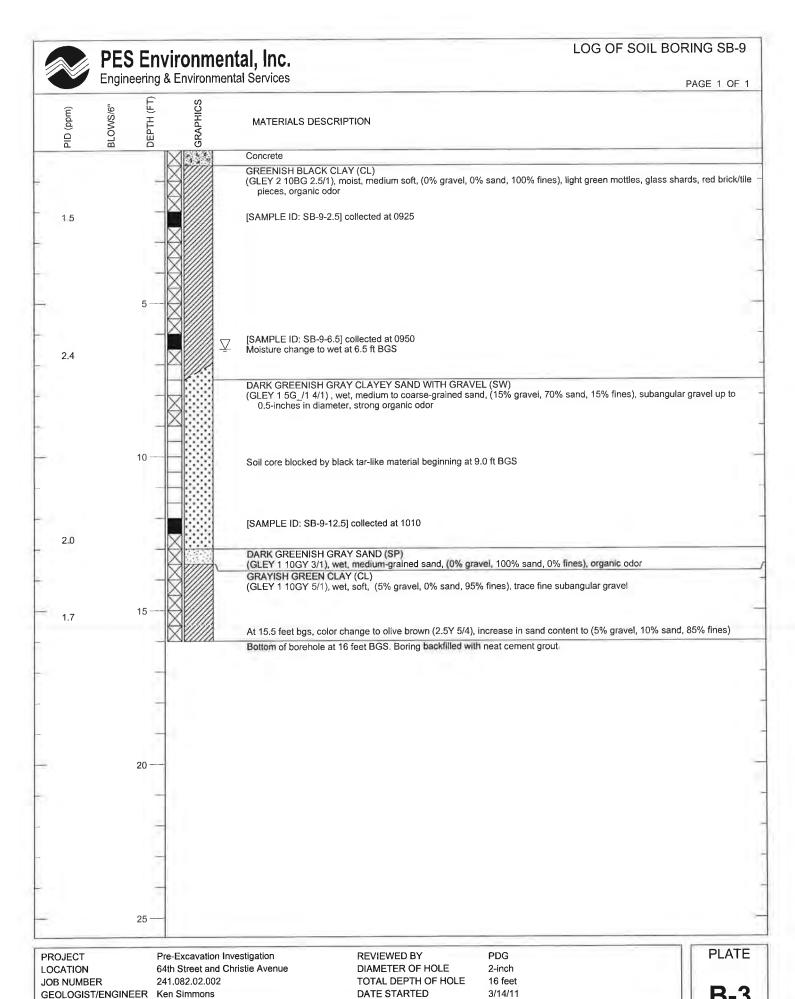
LOG OF SOIL BORING SB-8 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 DEPTH (FT) BLOWS/6' MATERIALS DESCRIPTION OLIVE BROWN SAND (SW) (2.5Y 5/4), moist, fine- to coarse-grained sand, (0% gravel, 95% sand, 5% fines) [SAMPLE ID: SB-8-2.5] collected at 1530 3.7 GREENISH BLACK CLAY (CL) (GLEY 1 10GY 2 5/1), moist, soft, (0% gravel, 0% sand, 100% fines) GREENISH GRAY CLAY (CH) (GLEY 1 10GY 5/1), wet, very soft, (5% gravel, 0% sand, 95% fines), trace fine gravel inclusions [SAMPLE ID: SB-8-6 5] collected at 1545 3.3 GREENISH GRAY SILT (ML) (GLEY 1 5/ N), wet, soft, (0% gravel, 0% sand, 100% fines), hydrocarbon odor 6-inch layer of roofing debris, strong hydrocarbon odor Color change to gray (GLEY 15/N), increase in coarse-grained sand to (0% gravel, 50% sand, 50% fines), hydrocarbon 3.4 ISAMPLE ID: SB-8-12.5] collected at 1600 DARK RED SAND (SW) (5R 3/6), wet, coarse-grained sand, (0% gravel, 95% sand, 5% fines) BLACK SANDY SILT (ML) (GLEY 1 2.5/ N), wet, soft, coarse-grained sand, (0% gravel, 50% sand, 50% fines), hydrocarbon odor (GLEY 1 10GY 5/1), wet, soft, (0% gravel, 0% sand, 100% fines), white shell inclusions, hydrocarbon odor Color change to olive brown (2.5Y 5/6), increase medium- to coarse-grained sand to (0% gravel, 20% sand, 80% fines) Bottom of borehole at 16 feet BGS. Boring backfilled with neat cement grout 20 25

PROJECT
LOCATION
JOB NUMBER
GEOLOGIST/ENGINEER
DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 Ken Simmons Direct Push REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

PDG 2-inch 16 feet 3/14/11 3/14/11 PLATE

B-2

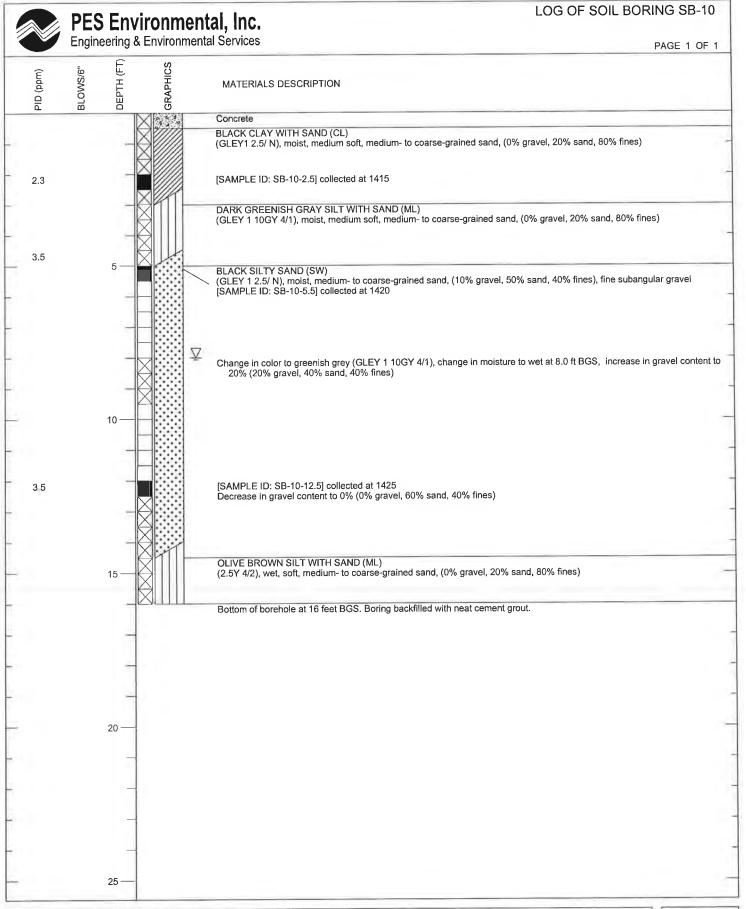


DATE COMPLETED

3/14/11

Direct Push

DRILL RIG

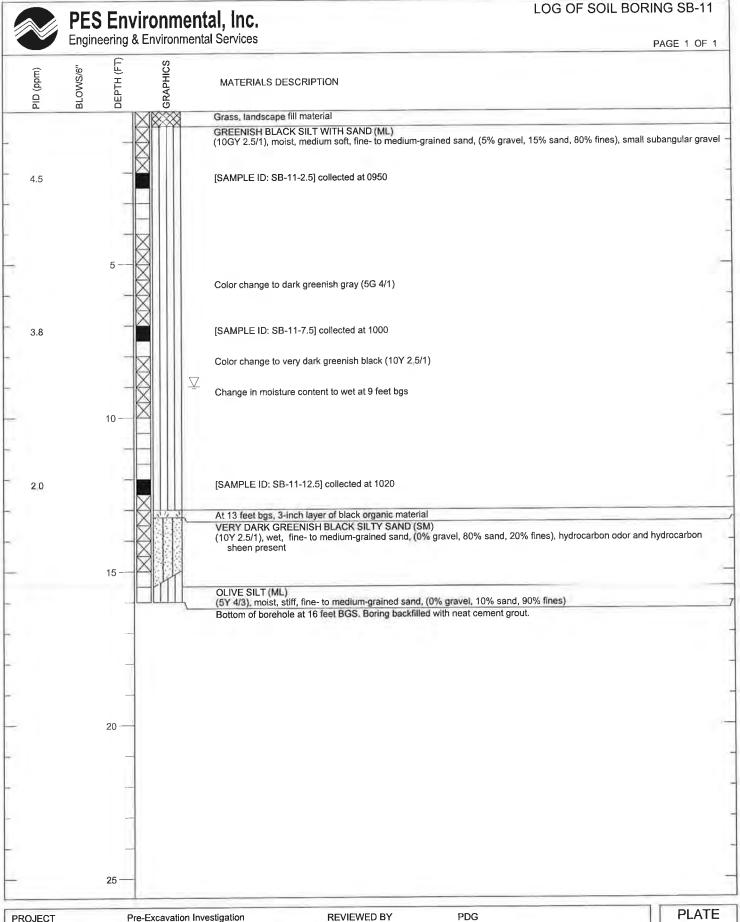


LOCATION
JOB NUMBER
GEOLOGIST/ENGINEER
DRILL RIG

PROJECT

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 John Alexander Direct Push REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

PDG 2-inch 16 feet 3/15/11 3/15/11 PLATE



ш	
1	LOCATION
	JOB NUMBER
	GEOLOGIST/ENGINEER
	DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 Justin Patterson Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

2-inch

16 feet

3/17/11

3/17/11

LOG OF SOIL BORING SB-12 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 DEPTH (FT) BLOWS/6" MATERIALS DESCRIPTION Concrete GREENISH BLACK CLAY (CL) (GLEY 2 10BG 2.5/1), moist, medium soft, (0% gravel, 0% sand, 100% fines), some light green mottles, glass shards present, reddish brick/tile like inclusions, organic odor present [SAMPLE ID: SB-12-2.5] collected at 1040 4.2 At 3 feet bgs, color change to black (GLEY 1 2.5/ N) 3.7 6-inch layer of debris, strong hydrocarbon odor DARK GREENISH GRAY CLAY (CH) (GLEY 1 5G_/1 4/1), wet, very soft, (0% gravel, 5% sand, 95% fines), trace medium-grained sand [SAMPLE ID: SB-12-7.5] collected at 1130 3.3 [SAMPLE ID: SB-12-12.5] collected at 1150 DARK GREENISH GRAY CLAYEY SAND (SW) 2.7 (GLEY 1 5G_/1 4/1), wet, medium- to coarse-grained sand, (0% gravel, 80% sand, 20% fines), white shell inclusions, GREENISH GRAY CLAY (CL) (GLEY 1 10GY 5/1), wet, medium soft, (0% gravel, 0% sand, 100% fines), white shell inclusions, organic odor 3.1 Bottom of borehole at 16 feet BGS. Boring backfilled with neat cement grout. 20 25

LOCATION JOB NUMBER GEOLOGIST/ENGINEER Ken Simmons DRILL RIG

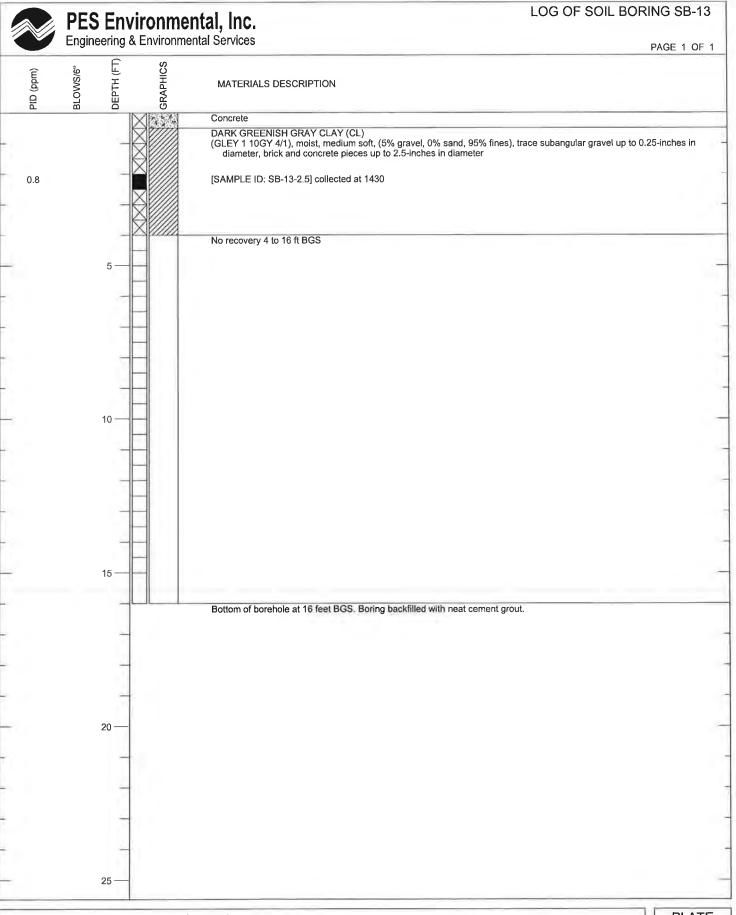
PROJECT

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG 2-inch 16 feet 3/14/11 3/14/11



PROJECT Pre-Excavation Investigation REVIEWED BY PDG 64th Street and Christie Avenue LOCATION DIAMETER OF HOLE 2-inch 241.082.02.002 JOB NUMBER TOTAL DEPTH OF HOLE 16 feet GEOLOGIST/ENGINEER Ken Simmons DATE STARTED 3/15/11 DRILL RIG Direct Push DATE COMPLETED 3/15/11 PLATE

REVIEWED BY

DATE STARTED

DATE COMPLETED

DIAMETER OF HOLE

TOTAL DEPTH OF HOLE

PDG

2-inch

16 feet

3/15/11

3/15/11

PROJECT

LOCATION

DRILL RIG

JOB NUMBER

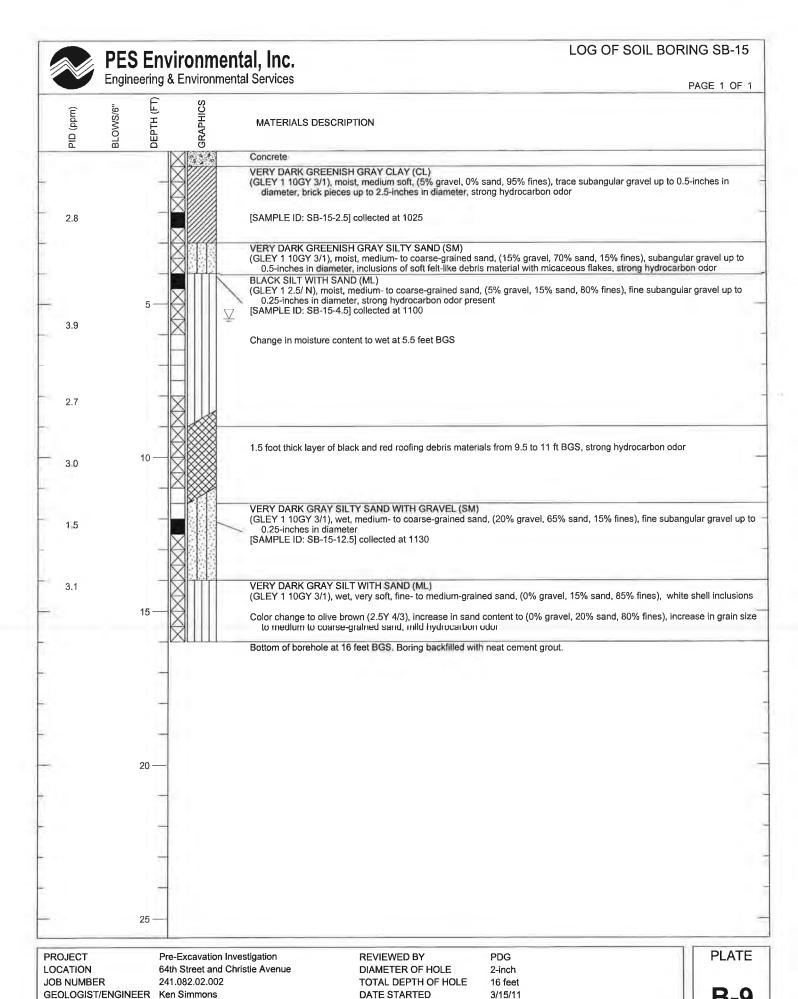
GEOLOGIST/ENGINEER Ken Simmons

Pre-Excavation Investigation

241.082.02.002

Direct Push

64th Street and Christie Avenue



DATE COMPLETED

3/15/11

DRILL RIG

Direct Push

LOG OF SOIL BORING SB-16 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 F GRAPHICS BLOWS/6" DEPTH MATERIALS DESCRIPTION GREENISH GRAY SAND WITH GRAVEL (SW) (GLEY 1 10GY 5/1), moist, medium- to coarse-grained sand, (15% gravel, 80% sand, 5% fines), subangular gravel up to 0.5-inches in diameter VERY DARK GRAY CLAY (CL) (2.5Y 3/1), moist, medium stiff, (5% gravel, 0% sand, 95% fines), trace fine subangular gravel [SAMPLE ID: SB-16-2.5] collected at 0930 1.6 GREENISH GRAY SAND (SW) (GLEY 1 10GY 5/1), moist, fine- to medium-grained sand, (5% gravel, 85% sand, 10% fines), trace fine subangular gravel 2.6 VERY DARK GRAY CLAY (CL) (2.5Y 3/1), wet, medium stiff, (5% gravel, 0% sand, 95% fines), trace fine subangular gravel [SAMPLE ID: SB-16-7.5] collected at 0935 DARK GREENISH GRAY SILTY SAND WITH GRAVEL (SM) (GLEY 1 5GY 4/1), wet, fine- to coarse-grained sand, (20% gravel, 60% sand, 20% fines), subangular gravel up to 0.5-inches in diameter, mild organic odor [SAMPLE ID: SB-16-12.5] collected at 0940 Color change to greenish black (GLEY 1 10GY 2 5/1), increase medium- to coarse-grained sand to (5% gravel, 80% sand, 15% fines), hydrocarbon odor 2.0 15 OLIVE BROWN SILT WITH SAND (ML) (2.5Y 4/4), wet, medium stiff, medium to coarse-grained sand, (U% gravel, 15% sand, 85% fines), hydrocarbon odor Bottom of borehole at 16 feet BGS. Boring backfilled with neat cement grout. 20 25

LOCATION JOB NUMBER GEOLOGIST/ENGINEER Ken Simmons DRILL RIG

PROJECT

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

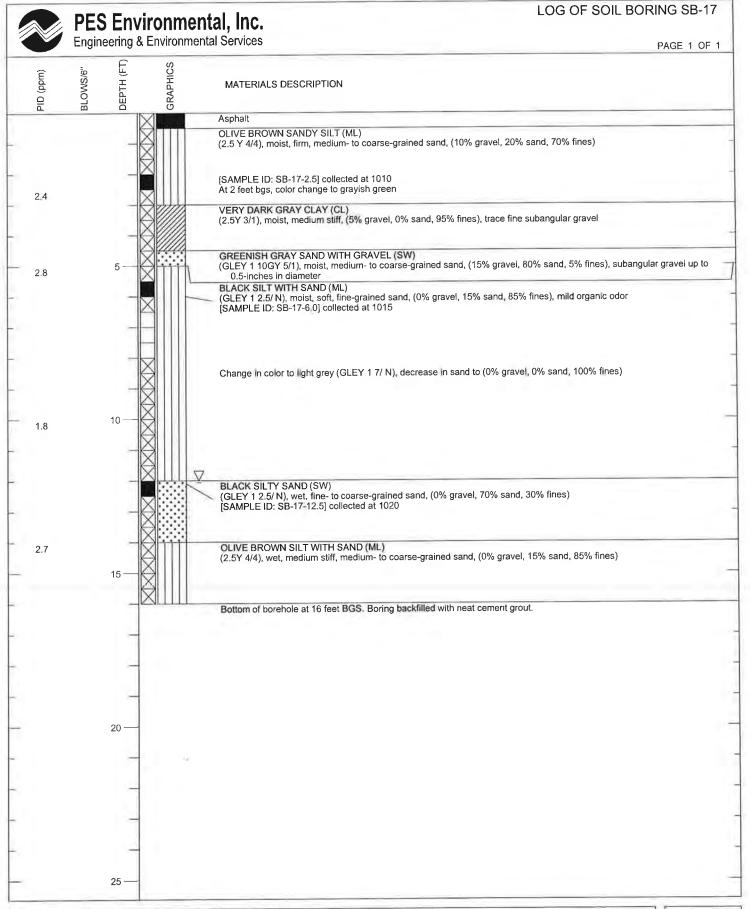
PDG

2-inch

16 feet

3/16/11

3/16/11



LOCATION JOB NUMBER GEOLOGIST/ENGINEER Ken Simmons DRILL RIG

PROJECT

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

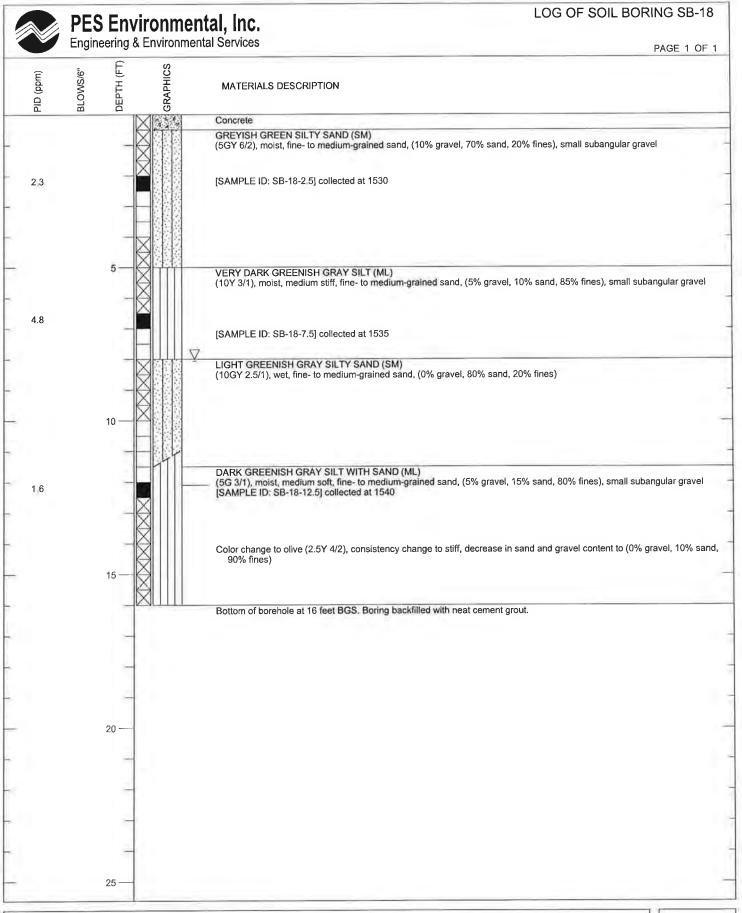
REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG

2-inch

16 feet

3/16/11 3/16/11

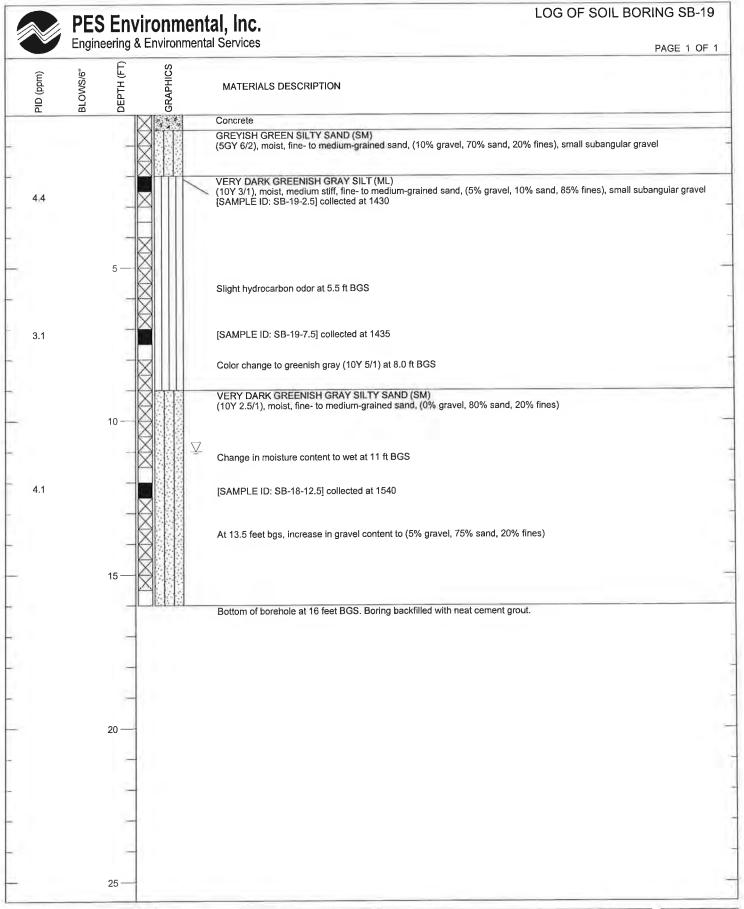


LOCATION
JOB NUMBER
GEOLOGIST/ENGINEER
DRILL RIG

PROJECT

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 Justin Patterson Direct Push REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

PDG 2-inch 16 feet 3/17/11 3/17/11 PLATE



PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER Justin Patterson DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 Direct Push

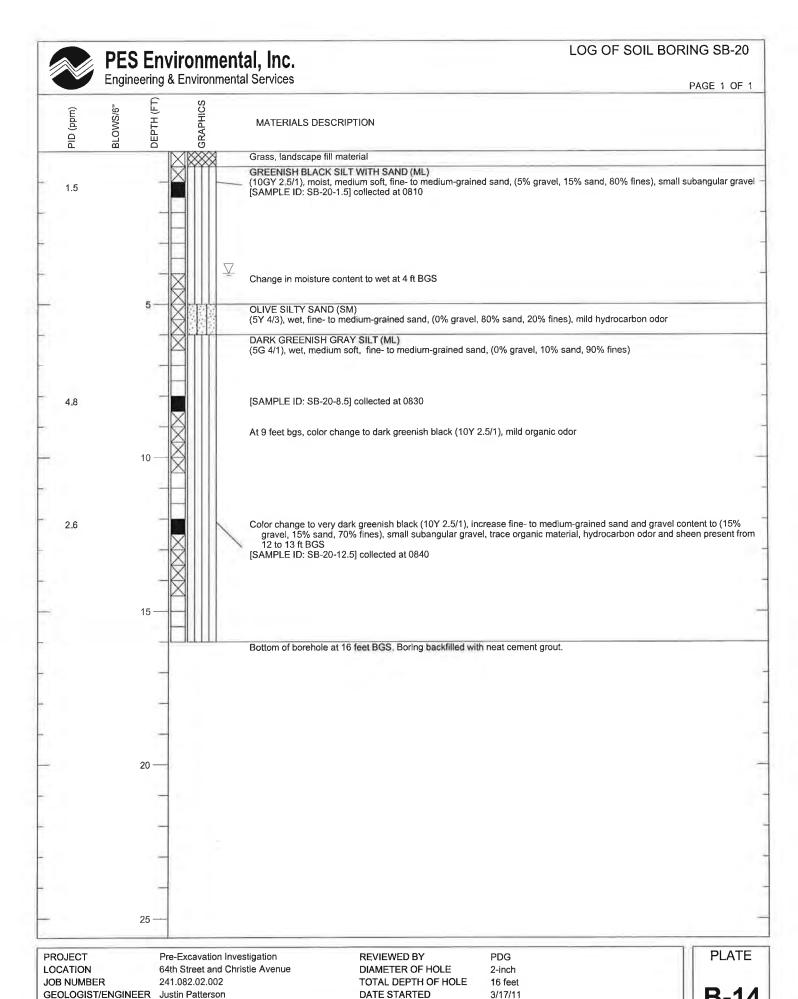
REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

2-inch

16 feet

3/17/11

3/17/11



DATE COMPLETED

3/17/11

DRILL RIG

Direct Push

LOG OF SOIL BORING SB-21 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 DEPTH (FT) BLOWS/6" MATERIALS DESCRIPTION Grass, landscape fill material GREENISH BLACK SILT WITH SAND (ML) (10GY 2.5/1), moist, medium soft, fine- to medium-grained sand, (5% gravel, 15% sand, 80% fines), small subangular gravel [SAMPLE ID: SB-21-2.5] collected at 1045 2.6 From 4 to 6 feet bgs, increase in gravel content to (10% gravel, 15% sand, 75% fines), hydrocarbon odor present Red and black roofing debris from 6 to 8 ft BGS, hydrocarbon odor OLIVE SILTY SAND (SM) 4.6 (5Y 4/3), wet, fine- to medium-grained sand, (0% gravel, 80% sand, 20% fines), mild hydrocarbon odor [SAMPLE ID: SB-21-8.5] collected at 1050 Black, layered roofing debris, strong odor VERY DARK GREENISH GRAY SILTY SAND (SM) (10Y 2.5/1), wet, fine- to medium-grained sand, (0% gravel, 80% sand, 20% fines), hydrocarbon sheen present [SAMPLE ID: SB-21-12.5] collected at 1100 OLIVE SILT (SM) (5Y 4/3), moist, stiff, fine- to medium-grained sand, (0% gravel, 10% sand, 90% fines) Bottom of borehole at 16 feet BGS. Boring backfilled with neat cement grout. 20 25

PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER Justin Patterson DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG

2-inch

16 feet

3/17/11

3/17/11

LOG OF SOIL BORING SB-22 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 E GRAPHICS BLOWS/6' DEPTH MATERIALS DESCRIPTION GRAYISH GREEN SILTY SAND (SM) (5GY 6/2), moist, fine- to medium-grained sand, (10% gravel, 70% sand, 20% fines), small subangular gravel [SAMPLE ID: SB-22-2.5] collected at 1330 At 4.5 feet bgs, 3 inch gravel layer At 5.5 feet bgs, decrease in gravel content to (0% gravel, 80% sand, 20% fines) Red and dark brown roofing debris [SAMPLE ID: SB-22-7.0] collected at 1335 7.4 DARK GREENISH GRAY SILT WITH SAND (ML) (5GY 3/1), moist, fine- to medium-grained sand, (5% gravel, 15% sand, 80% fines), subangular gravel Red and dark brown roofing debris VERY DARK GREENISH GRAY SILTY SAND (SM) 36 (10Y 2.5/1), wet, fine- to medium-grained sand, (0% gravel, 80% sand, 20% fines), hydrocarbon sheen present [SAMPLE ID: SB-22-12.5] collected at 1340 OLIVE SILT (SM) (5Y 4/3), moist, stiff, fine- to medium-grained sand, (0% gravel, 10% sand, 90% fines) Bottom of borehole at 16 feet BGS. Boring backfilled with neat cement grout. 20 25

PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER Justin Patterson DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

2-inch

16 feet

3/17/11

3/17/11

LOG OF SOIL BORING SB-23 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 E GRAPHICS BLOWS/6' MATERIALS DESCRIPTION DEPTH GRAYISH GREEN SILTY SAND (SM) (5GY 6/2), moist, fine- to medium-grained sand, (10% gravel, 70% sand, 20% fines), small subangular gravel [SAMPLE ID: SB-23-2.5] collected at 1140 At 4.5 feet bgs, decrease in gravel content to (5% gravel, 75% sand, 20% fines) DARK GREENISH GRAY SAND (SW) (10GY 4/1), moist, fine- to medium-grained sand, (0% gravel, 100% sand, 0% fines) [SAMPLE ID: SB-23-7.0] collected at 1145 3.2 Red and black roofing debris, hydrocarbon odor DARK GREENISH GRAY SILT WITH SAND (SM) (10GY 4/1), wet, medium stiff, fine- to medium-grained sand, (0% gravel, 15% sand, 85% fines) Black roofing and wood debris, strong hydrocarbon odor VERY DARK GREENISH GRAY SILTY SAND (SM) (10Y 2.5/1), wet, fine- to medium-grained sand, (0% gravel, 80% sand, 20% fines) [SAMPLE ID: SB-23-12.5] collected at 1150 3.8 OLIVE SILT (SM) (5Y 4/3), moist, stiff, fine- to medium-grained sand, (0% gravel, 10% sand, 90% fines) Bottom of borehole at 16 feet BGS. Boring backfilled with neat cement grout. 25

PROJECT
LOCATION
JOB NUMBER
GEOLOGIST/ENGINEER
DRILL RIG

Pre-Excavation Investigation 64th Street and Christle Avenue 241.082.02.002 Justin Patterson

Direct Push

REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

PDG

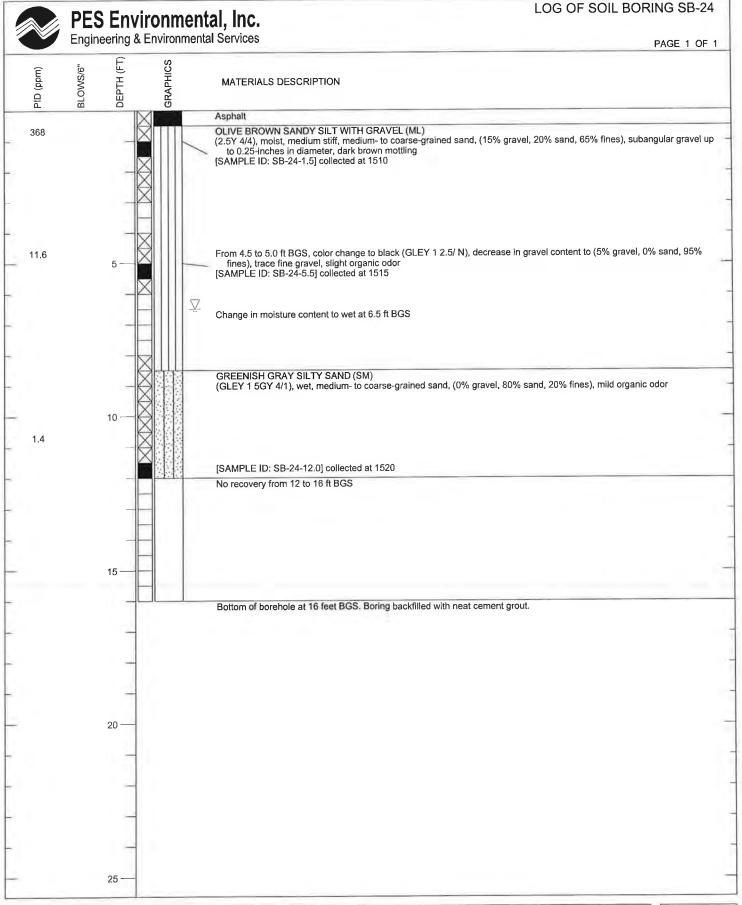
2-inch

16 feet

3/17/11

3/17/11

PLATE



LOCATION JOB NUMBER GEOLOGIST/ENGINEER Ken Simmons DRILL RIG

PROJECT

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG

2-inch

16 feet

3/16/11

3/16/11

LOG OF SOIL BORING SB-25 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 DEPTH (FT) BLOWS/6" MATERIALS DESCRIPTION Asphalt GREENISH GRAY SAND WITH GRAVEL (SW) (GLEY 1 10GY 5/1), moist, medium- to coarse-grained sand, (15% gravel, 80% sand, 5% fines), subangular gravel up to 0.5-inches in diameter VERY DARK GRAY CLAY (CL) (2.5Y 3/1), moist, medium stiff, (5% gravel, 0% sand, 95% fines), trace fine subangular gravel [SAMPLÉ ID: SB-25-2.5] collected at 0825 27 Black roofing and wood debris, asphalt odor VERY DARK GRAY CLAY (CL) (2.5Y 3/1), wet, medium stiff, (5% gravel, 0% sand, 95% fines), trace fine subangular gravel GREENISH GRAY SAND (SW) (GLEY 1 10GY 5/1), moist, fine- to medium-grained sand, (5% gravel, 85% sand, 10% fines), trace fine subangular gravel VERY DARK GRAY CLAY (CL) (2.5Y 3/1), wet, medium stiff, (5% gravel, 0% sand, 95% fines), trace fine subangular gravel [SAMPLE ID: SB-25-7.5] collected at 0830 Black roofing debris with tar, strong odor GREENISH BLACK SILT WITH SAND (ML) (GLEY 1 10GY 2.5/1), wet, soft, medium- to coarse-grained sand, (5% gravel, 15% sand, 80% fines), trace fine subangular gravel Red and black roofing debris with tar GREENISH BLACK SILTY SAND (SW) (GLEY 1 10GY 2.5/1), wet, medium- to coarse-grained sand, (5% gravel, 80% sand, 15% fines), trace fine subangular 2.2 gravel, organic odor [SAMPLE ID; SB-25-12,5] collected at 0835 OLIVE BROWN SILT WITH SAND (ML) (2.5Y 4/4), wet, medium stiff, medium- to coarse-grained sand, (0% gravel, 15% sand, 85% fines) Bottom of borehole at 16 feet BGS. Boring backfilled with neat cement grout. 20 25

REVIEWED BY

DATE STARTED

DATE COMPLETED

DIAMETER OF HOLE

TOTAL DEPTH OF HOLE

PROJECT

LOCATION

DRILL RIG

JOB NUMBER

GEOLOGIST/ENGINEER Ken Simmons

Pre-Excavation Investigation

241.082.02.002

Direct Push

64th Street and Christie Avenue

PDG

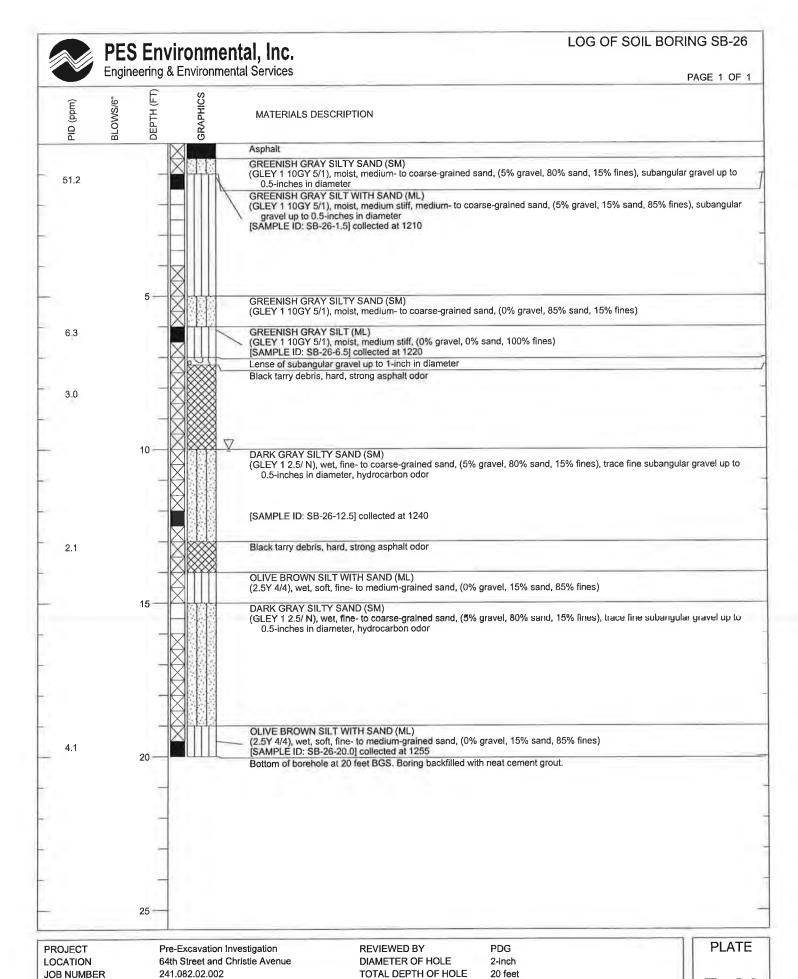
2-inch

16 feet

3/16/11

3/16/11

PLATE



DATE STARTED

DATE COMPLETED

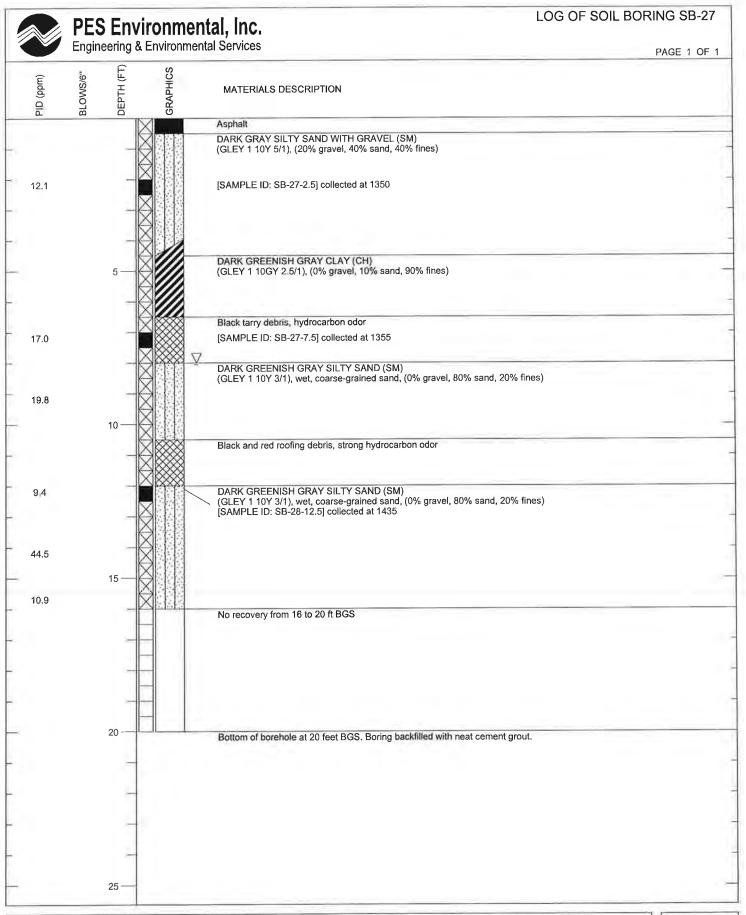
3/17/11

3/17/11

GEOLOGIST/ENGINEER Ken Simmons

DRILL RIG

Direct Push



PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 John Alexander Direct Push REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

PDG 2-inch 20 feet 3/16/11 3/16/11 PLATE

LOG OF SOIL BORING SB-28 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 E BLOWS/6' PID (ppm MATERIALS DESCRIPTION DEPTH Asphalt GREENISH GRAY SILTY SAND (SM) 0.7 (GLEY 1 5GY 4/1), dry, fine- to coarse-grained sand, (10% gravel, 70% sand, 20% fines), subangular gravel up to 0.25-inches in diameter [SAMPLE ID: SB-28-1.5] collected at 1400 DARK GREENISH GRAY SANDY SILT (ML) (GLEY 1 10GY 2.5/1), moist, medium soft, medium-to coarse-grained sand, (5% gravel, 15% sand, 80% fines) Decrease in gravel and sand content to (0% gravel, 0% sand, 100% fines) Increase in gravel and sand content to (5% gravel, 15% sand, 80% fines) [SAMPLE ID: SB-28-7.5] collected at 1410 DARK GREENISH GRAY SAND (SW) (GLEY 1 2.5/ N), wet, medium- to coarse-grained sand, (0% gravel, 90% sand, 10% fines), trace red and green coarse-grained sand At 9.0 to 9.5 ft BGS, black tarry debris, hard, strong odor Black tarry debris, hard, strong odor DARK GREENISH GRAY SAND (SW) (GLEY 1 2.5/ N), wet, medium- to coarse-grained sand, (0% gravel, 90% sand, 10% fines), trace red and green coarse-grained sand, hydrocarbon odor [SAMPLE ID: SB-28-12.5] collected at 1435 2.7 OLIVE BROWN SILT WITH SAND (ML) (2.5Y 4/4), wet, soft, fine- to medium-grained sand, (0% gravel, 15% sand, 85% fines) [SAMPLE ID: SB-28-16.0] collected at 1445 2.1 From 16.0 to 18.5, color change to black (GLEY 1 2.5/ N) 2.3 [SAMPLE ID: SB-28-20.0] collected at 1505 2.7 Bottom of borehole at 20 feet BGS. Boring backfilled with neat cement grout. 25

LOCATION JOB NUMBER GEOLOGIST/ENGINEER Ken Simmons DRILL RIG

PROJECT

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

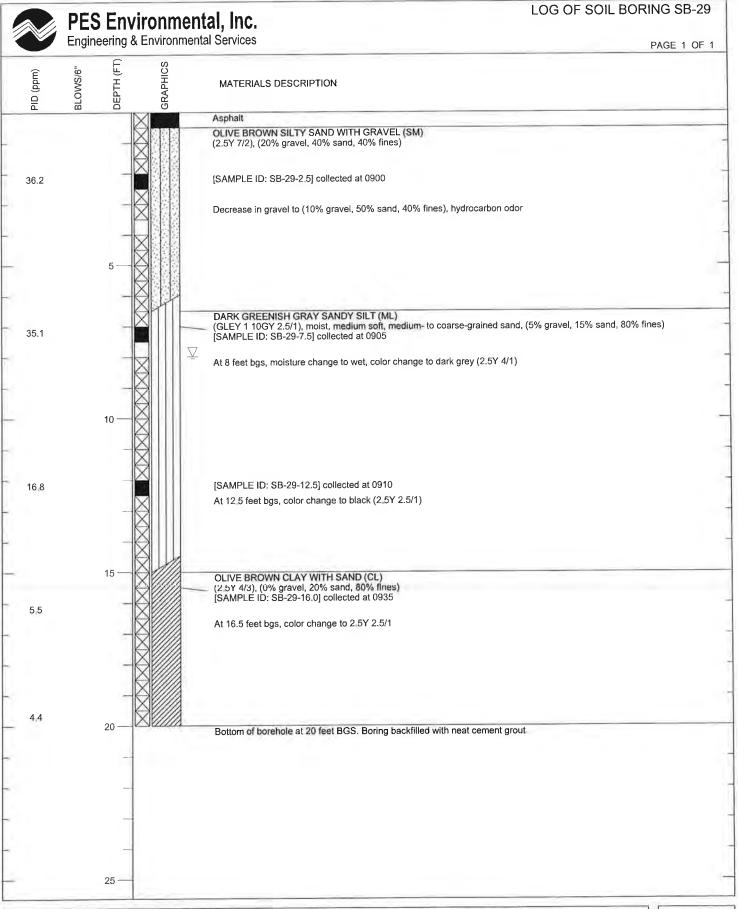
PDG

2-inch

20 feet

3/17/11

3/17/11



LOCATION JOB NUMBER GEOLOGIST/ENGINEER John Alexander DRILL RIG

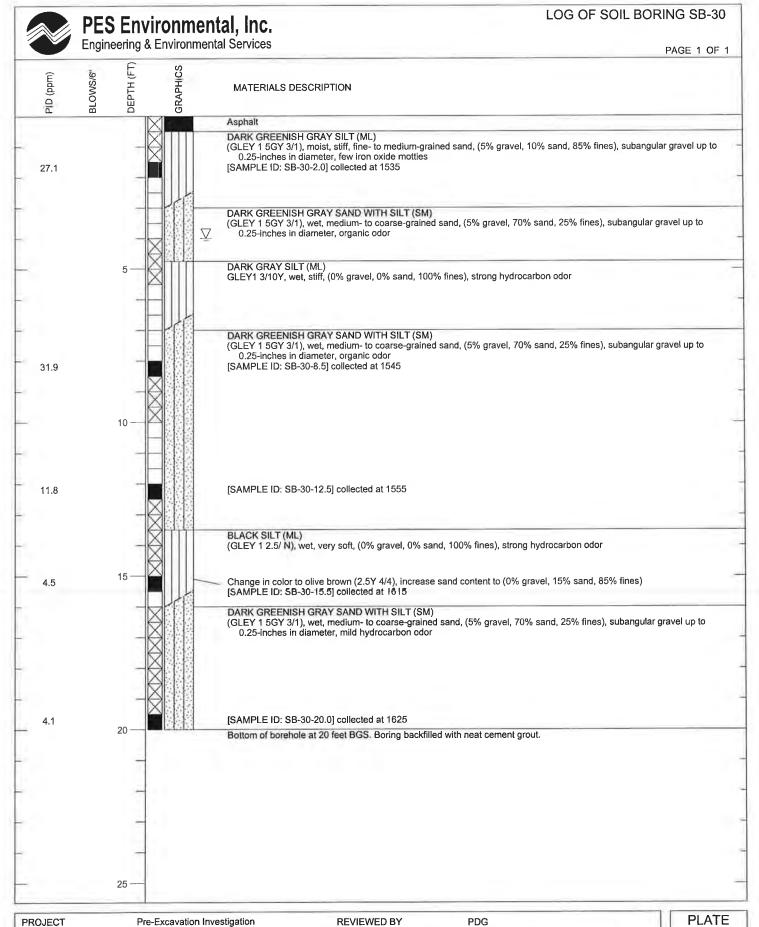
PROJECT

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG 2-inch 20 feet 3/16/11 3/16/11



64th Street and Christie Avenue LOCATION 241.082.02.002 JOB NUMBER GEOLOGIST/ENGINEER Ken Simmons Direct Push DRILL RIG

PROJECT

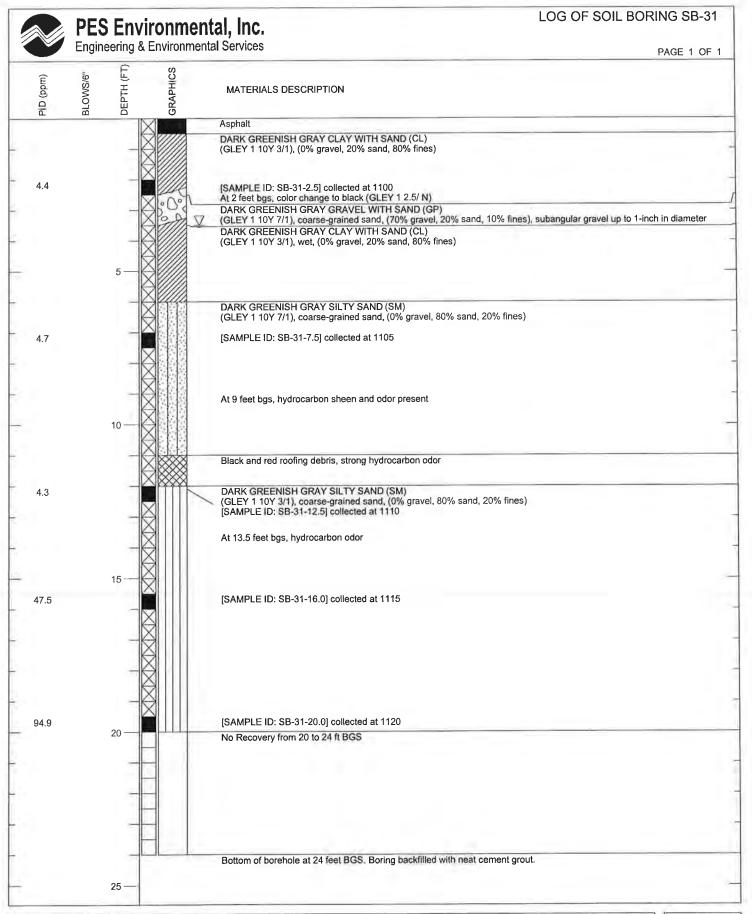
REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

2-inch

20 feet

3/17/11

3/17/11



PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER John Alexander DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG

2-inch

24 feet

3/16/11

3/16/11

LOG OF SOIL BORING SB-32 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 DEPTH (FT) BLOWS/6" MATERIALS DESCRIPTION Asphalt OLIVE BROWN SANDY SILT (ML) (2,5Y 4/4), moist, medium stiff, medium- to coarse-grained sand, (10% gravel, 20% sand, 70% fines), subangular gravel up to 0.25-inches in diameter, few brick-like inclusions [SAMPLE ID: SB-32-2.5] collected at 1205 DARK GREENISH GRAY CLAY (SM) (GLEY 1 10GY 2,5/1), moist, medium soft, (5% gravel, 0% sand, 95% fines), few iron oxide mottles From 6 to 7 ft bgs, increase in moisture content to very moist 20.7 [SAMPLE ID: SB-32-7.5] collected at 1210 GRAY SILTY SAND (SM) (GLEY 1 10Y 3/1), moist, medium- to coarse-grained sand, (5% gravel, 70% sand, 25% fines), red inclusions, strong hydrocarbon odor OLIVE BROWN SANDY SILT (ML) (2.5Y 4/4), moist, medium stiff, medium- to coarse-grained sand, (10% gravel, 20% sand, 70% fines), subangular gravel up to 0.25-inches in diameter, few brick-like inclusions [SAMPLE ID: SB-32-11.0] collected at 1215 Black tarry debris, strong hydrocarbon odor 5_2 VERY DARK GRAY SILT WITH SAND (ML) (GLEY 1 10Y 3/1), wet, very soft, medium- to coarse-grained sand, (5% gravel, 15% sand, 80% fines), strong organic odor ∇ 10.7 Bottom of borehole at 20 feet BGS. Boring backfilled with neat cement grout 25

PROJECT
LOCATION
JOB NUMBER
GEOLOGIST/ENGINEER
DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 Ken Simmons

Direct Push

REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

PDG 2-inch 20 feet 3/16/11 3/16/11 PLATE

LOCATION JOB NUMBER GEOLOGIST/ENGINEER Ken Simmons DRILL RIG

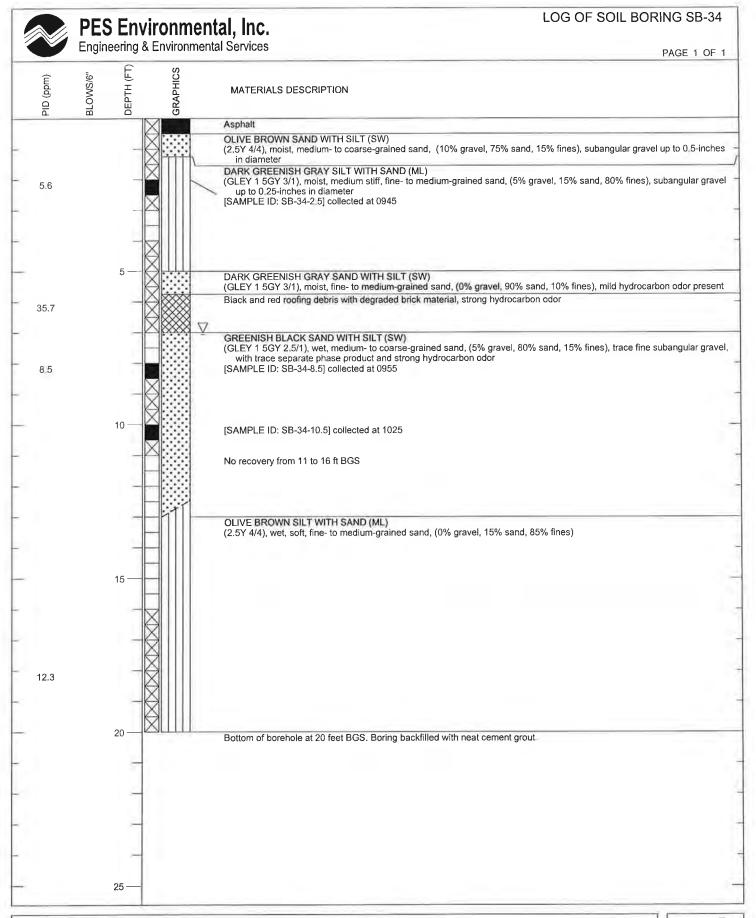
PROJECT

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG 2-inch 16 feet 3/17/11 3/17/11



PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER Ken Simmons **DRILL RIG**

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG

2-inch

20 feet

3/17/11

3/17/11

PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 F BLOWS/6' DEPTH MATERIALS DESCRIPTION Asphalt OLIVE BROWN SILTY SAND (SM) (2.5Y 4/4), moist, medium- to coarse-grained sand, (5% gravel, 70% sand, 20% fines), subangular gravel up to 0.5-inches in diameter GREENISH GRAY SILT WITH SAND (ML) (GLEY 1 5GY 3/1), moist, medium stiff, fine- to medium-grained sand, (5% gravel, 15% sand, 80% fines), subangular gravel 1.5 up to 0.25-inches in diameter, brick debris [SAMPLE ID: SB-35-2.5] collected at 0825 Change in moisture content to wet at 3.0 ft BGS GREENISH GRAY SILT (ML) (GLEY 1 5GY 3/1), wet, medium stiff, fine- to medium-grained sand, (0% gravel, 10% sand, 90% fines) Black and red roofing debris, strong hydrocarbon odor 1.5 GREENISH GRAY SILT WITH SAND (ML) (GLEY 1 5GY 3/1), wet, medium stiff, fine- to medium-grained sand, (5% gravel, 15% sand, 80% fines), subangular gravel up to 0.25-inches in diameter, brick debris [SAMPLE ID: SB-35-8.5] collected at 0850 39 Black and red roofing debris, strong hydrocarbon odor GREENISH GRAY SILTY SAND (SM) (GLEY 1 10GY 3/1), wet, medium- to coarse grained sand, (5% gravel, 70% sand, 25% fines), subangular gravel up to 0.25-inches in diameter, fine red gravel-like inclusions, no odor [SAMPLE ID: SB-35-12.5] collected at 0915 3.7 Bottom of borehole at 16 feet BGS. Boring backfilled with neat cement grout. 20 25

PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER Ken Simmons DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

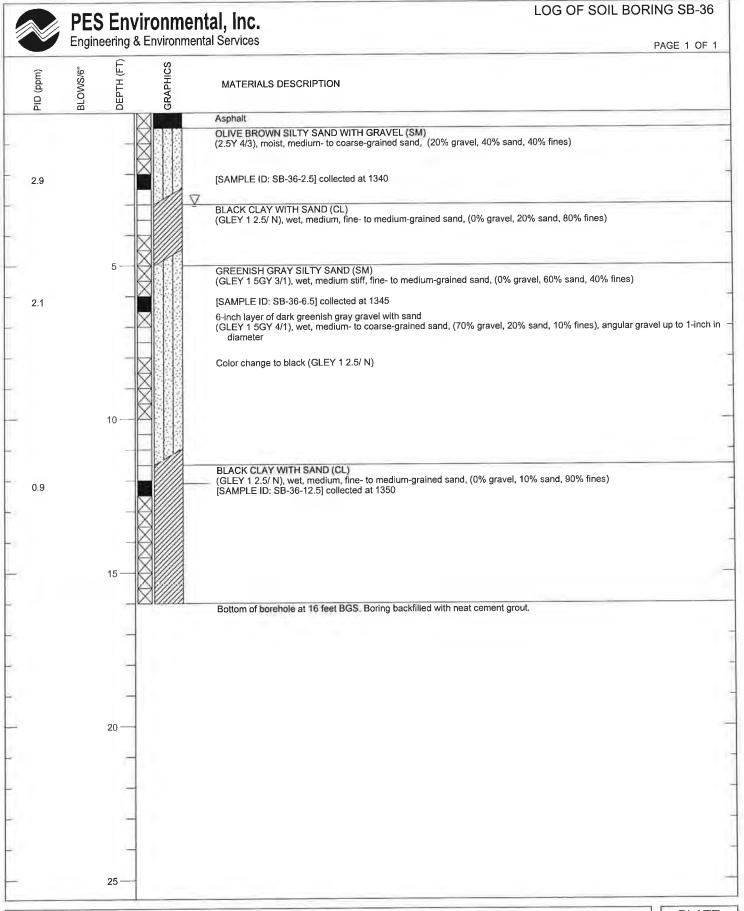
Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG 2-inch 16 feet 3/17/11 3/17/11

PLATE

LOG OF SOIL BORING SB-35



PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER John Alexander DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002

Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

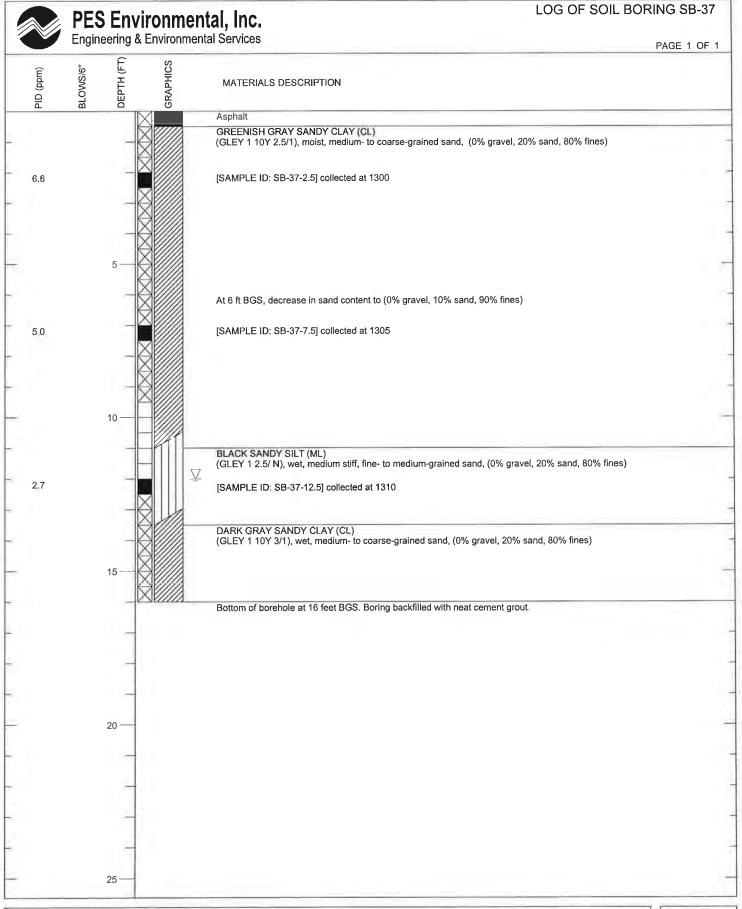
PDG

2-inch

16 feet

3/15/11

3/15/11



PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 John Alexander Direct Push REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

PDG

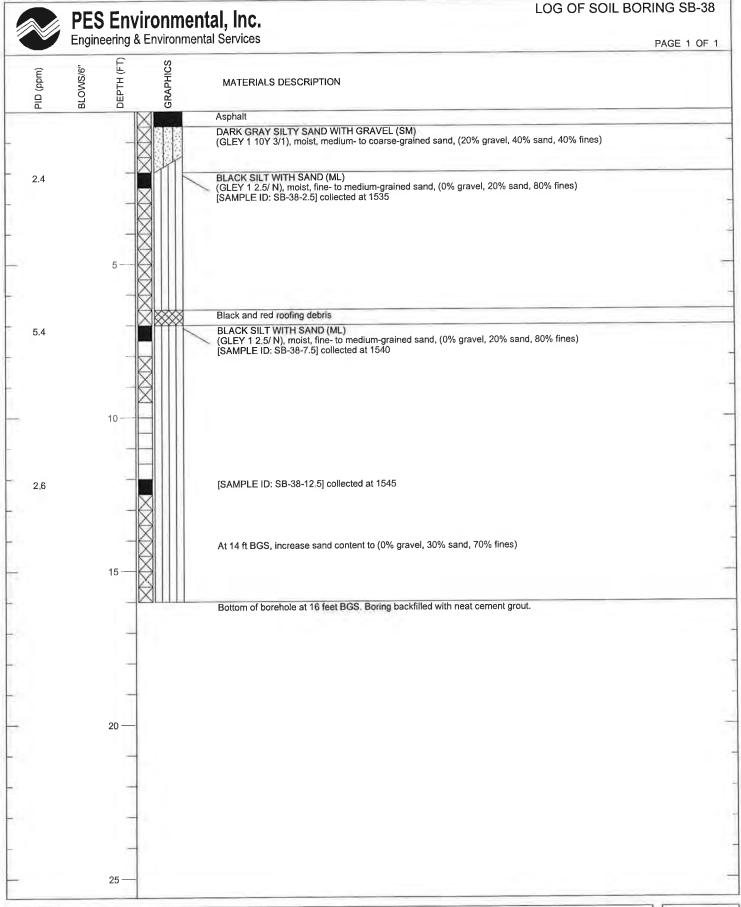
2-inch

16 feet

3/15/11

3/15/11

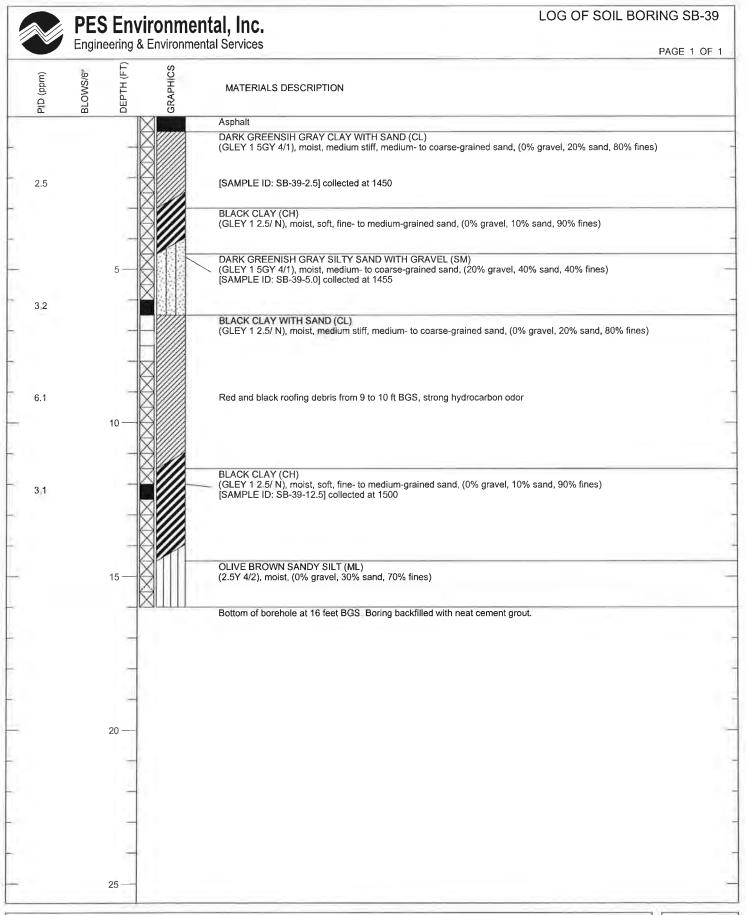
PLATE



PROJECT Pre-Excavation
LOCATION 64th Street and
JOB NUMBER 241.082.02.002
GEOLOGIST/ENGINEER John Alexander
DRILL RIG Direct Push

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 John Alexander Direct Push REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

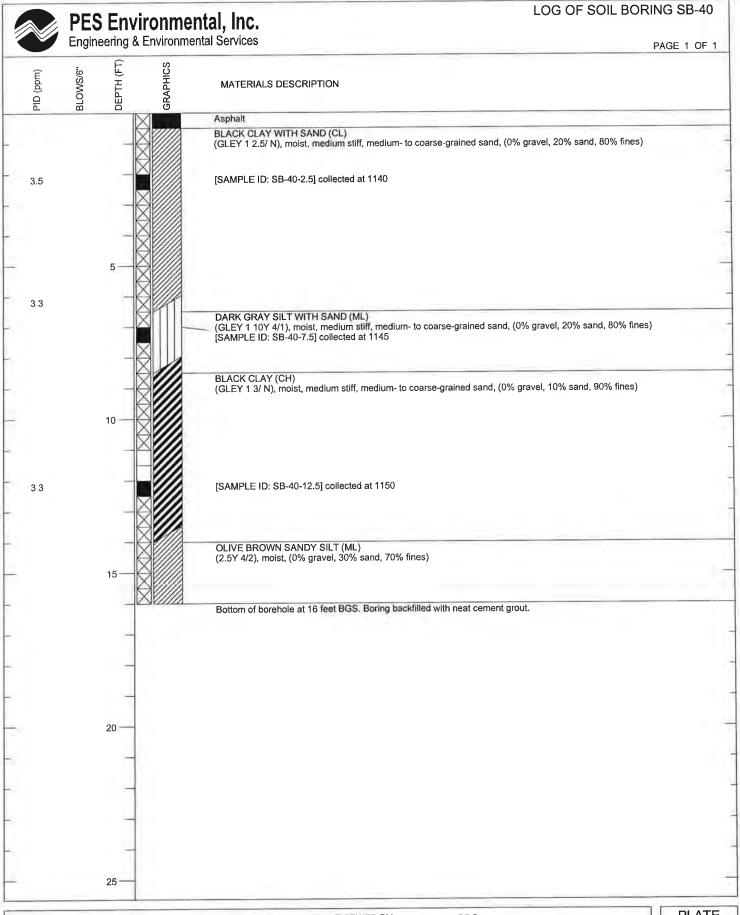
PDG 2-inch 16 feet 3/15/11 3/15/11 PLATE



PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 John Alexander Direct Push REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

PDG 2-inch 16 feet 3/15/11 3/15/11 PLATE



PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER John Alexander DRILL RIG

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 Direct Push

REVIEWED BY DIAMETER OF HOLE TOTAL DEPTH OF HOLE DATE STARTED DATE COMPLETED

PDG 2-inch 16 feet 3/15/11 3/15/11

LOG OF SOIL BORING SB-41 PES Environmental, Inc. Engineering & Environmental Services PAGE 1 OF 1 (F GRAPHICS BLOWS/6' PID (ppm MATERIALS DESCRIPTION Concrete VERY DARK GRAY CLAY WITH GRAVEL (CL) (SY 3/1), moist, medium soft, medium- to coarse-grained sand, (25% gravel, 5% sand, 70% fines), subangular gravel up to 0.25-inches in diameter, few concrete and brick fragments [SAMPLE ID: SB-41-2.5] collected at 0915 1,5 DARK GREENISH GRAY SILTY SAND WITH GRAVEL (SM) (GLEY 15G /2 4/1), wet, medium- to coarse-grained sand, (15% gravel, 45% sand, 40% fines), subangular gravel up to 0.75-inches in diameter, few iron oxide mottles, strong hydrocarbon odor VERY DARK GREENISH GRAY SILT WITH SAND (ML) (GLEY 1 10GY 3/1), wet, medium soft, medium- to coarse-grained sand, (5% gravel, 20% sand, 75% fines), subangular gravel up to 0.25-inches in diameter, strong hydrocarbon odor [SAMPLE ID: SB-41-6.5] collected at 1000 3.1 At 9 feet bgs, wood debris, strong hydrocarbon odor VERY DARK GREENISH GRAY SILTY SAND WITH GRAVEL (SM) GLEY1 3/10GY, wet, medium- to coarse-grained sand, (20% gravel, 65% sand, 15% fines), subangular gravel up to 0.25-inches in diameter [SAMPLE ID: SB-41-12.5] collected at 1020 VERY DARK GREENISH GRAY SILT WITH SAND (ML) (GLEY 1 10GY 3/1), wet, very soft, fine- to medium-grained sand, (0% gravel, 15% sand, 85% fines), white shell inclusions At 15 ft BGS, color change to olive brown (2.5Y 4/3), increase in sand content to (0% gravel, 20% sand, 80% fines), mild hydrocarbon odor Bottom of borehole at 16 feet BGS. Boring backfilled with neat cement grout. 20

PROJECT LOCATION JOB NUMBER GEOLOGIST/ENGINEER DRILL RIG

25

Pre-Excavation Investigation 64th Street and Christie Avenue 241.082.02.002 Ken Simmons

Direct Push

REVIEWED BY
DIAMETER OF HOLE
TOTAL DEPTH OF HOLE
DATE STARTED
DATE COMPLETED

2-inch

16 feet

3/15/11

3/15/11

PLATE

APPENDIX C

WELL MONITORING DATA SHEETS

WELL GAUGING DATA

Project	#_ <u>\\\035</u> -	-1241	Date	2/15/N	Client _	RES	
Site	64년 사	and Chris	he are	/ Emeraville			

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)		Immiscibles Removed		Depth to well bottom (ft.)	Survey Point: TOB or	Notes
6W-10	0846	2					5.35	15.90		
GW-11	1027	2_					3.95	15.90		
GW-12	1141	2					H.\S	IS.90	A COMPANIES AND A COMPANIES AN	
GW-13		2					H.10	15.85		
GW-8	3/16	2					6.10	15.88	ood in the same of	
6W-9	3/16 1010	2					4.16	US.80	V	
					-					
							Annual Control of the			
	-									
					-					

WELLHEAD INSPECTION CHECKLIST

Page ____of__

Date 3/	5/11	Client	PES		70-11-11-11-11-11-11-11-11-11-11-11-11-11			
Site Address	64th 5th a	w. Ch	nistic A	re f	Emergiall	&.		
	110312-541				chnician			
Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	! i	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
<u> </u>		Temo	llsu c	_, NO	box		e	
GW-11								
GW-12	·	account of the contract of the	·					
GW-13		- Principle and American						
6W-8 6W-9		and the second						
6w-9		Y						

								·
NOTES:		LL		<u> </u>	<u></u> l.			
NOTES.						······································		
					***************************************	-		
						·		

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAM	ME LES GO	Hith ad Cris	PROJECT NUMBER 16315-741					
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:			
751 POPUS	1002.95	3/15/11 0836	24 7.30 10.30	7.15 9.89 4.35	7.00 10.00	TEMP. \9. \4	INITIALS ?U	
			3900 eesen	3933	3900		74	
		·	0127 240.1 Do 100%	227.4	240.0	18.8	<i>5H</i>	
read from the second		4	Ø 00 ZERS P.O. SOUTH	0.04 mg/L			67	
N21 Les Your	107/00295	3/16/11 0520	947.00 10.00 4.00	7.12	7636 10-20 4.50	18.2	Ph	
			andvotilty 3900 wasen	3854	3901		311	
	·		0029 241.5 00 100%	244.7	241.5	18.0	311	
			10 To 2000 D.O. SOLUTED	oos ngi			54	
		·						
				,				
	·							

WELL MONITORING DATA SHELL

Project #:	110315	<u> 149-</u>		Client:	PES	· deg			
Sampler:	PH			Date:	3/15	A			
Well I.D.:	6W-10			Well Di			4 6	6 8	
Total Well			7 0	Depth to Water (DTW): 5.35					
Depth to F	ree Produc	t:		Thickness of Free Product (feet):					
Referenced	i to:	<u> </u>	Grade	D.O. M	eter (if	req'd):	YS	І НАСН	
DTW with	80% Rech	arge [(H	Height of Water	Column	x 0.20) + DTW]:	7,4	6	
Purge Method:	Disposable B	Displaceme mersible	Other		Well Diamete 1" 2"		othod: Other: Well Diame 4" 6"	Bailer Disposable Bailer Extraction Port Dedicated Tubing eter Multiplier 0.65 1.47	
1 Case Volume	`	ified Volum		_ Gals. olume	3"	0.37	Other	radius ² * 0.163	
Time	Temp	рН	Cond. (mS or (LS)	Turbi (NT)	-	Gals. Remo	ved	Observations	
69\ <i>0</i>	17.5	7.95	5163	2100	در د	1.7			
0912	77.9	7.53	3632	2100) D	3.5			
69\S	18.1	7.49	² 3854	7100	00	5.0			
		·							
Did well de	water?	Yes	No/	Gallons	actuall	y evacuated	l: ,		
Sampling D	ate:		Sampling Time	e:		Depth to W	ater:		
Sample I.D.	.:			Laborato	ory:	Kiff CalSci	ience	Other	
Analyzed fo	or: TPH-G	вуех	MTBE TPH-D	Oxygenat	tes (5)	Other.			
EB I.D. (if a	applicable)	1	@ Time	Duplicat	 te I.D. ((if applicabl	e):	- 12	
Analyzed fo	or: TPH/G	BTEX		Oxygenate		Other:			
D.O. (if req	'd): / Pr	e-purge:	And the second s	mg/L	Po	ost-purge:	MANAGE MA	mg/ _L	
O.R.P. (if re	eq'd): Pr	e-purge:		mV	Po	ost-purge:		mV	

LOW FLOW WELL MONITORING DATA SHEET

Project #	: 110315-	1149		Client: P	Client: RES						
Sampler:	74			Date: 3/							
Well I.D.	: GW-1	O		1) 3 4	6 8				
I .	ll Depth:			Depth to V	Depth to Water Pre: 6-23 Post: 6-30						
Depth to	Free Produ	uct:			Thickness of Free Product (feet):						
Reference	ed to:	€VO	Grade	Flow Cell	Type:>	Ol Pap	lus				
Purge Methors Sampling M	od: ethod:	2" Grundf Dedicated	,		Peristaltic l New Pubin		Bladder Pump Other				
Flow Rate:	200	ml/min			Pump Dept	h:	1				
Time	Temp.	рН	Cond. (mS orus)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mE)	アル; Observations			
0941	Purge 5	text									
0944	15.3	7.60	<u>L</u> 1540	486	0,98	- 40,0	600	6.19			
0947	18.3	7.53	5157	480	0.76	-43.6	1200	6.23			
0950	18,3	7.43	5132	472	6.7)	-42.5	1800	6.25			
0953	18.4	7.45	5119	484	0.68	-47.2	2400	6.27			
					No.						
No.											
	Light Instance of the Control of the										
Did well d	lewater?	Yes (NT0		Amount a	actually e	vacuated: 24	100 ml			
Sampling	Time: 09	54			Sampling	Date: 3,	15/11				
Sample I.I	D.: GW-1	٥			Laborator						
Analyzed	for:	ТРН-G	втех мтв	E TPH-D							
Equipmen	t Blank I.I	D.:	@ Time		Duplicate			AAP			

WELL MONITORING DATA SHEET

Project #:	110315-1	PH1		Client: PE5					
1 .	PH			Date: 3/15/11					
Well I.D.:	GW-11			Well Diameter: 2 3 4 6 8					
Total Well)): 15.5	20	Depth to Water (DTW): 3.95					
Depth to Fr	ee Product	t •	MARKET TO THE RESERVE	Thickness of Free Product (feet):					
Referenced		PVÌ	Grade	D.O. Meter (i	D.O. Meter (if req'd): YSI HACH				
DTW with	80% Rech	arge [(H	leight of Water	Column x 0.20)) + DTW]: 6	34			
	Bailer Disposable B Positive Air I Electric Subn Gals.) X	Displaceme nersible	ent Extrac Other	Well Diame I" 2" 3"	Other: Other:	Disposable Bailer Extraction Port Dedicated Tubing Diameter Multiplier 0.65 1.47			
1 Case Volume	Speci	fied Volun	nes Calculated Vo	olume					
Time	Temp	pН	Cond. (mS or as)	Turbidity (NTUs)	Gals. Removed	Observations			
1026	14.6	7.87	2186	>1000	2.0	light sheen/odor			
1029	14.5	7.55	2505	>1000	4.0				
1032	14.5	7.50	2545	21000	5.7				
Did well de	water?	Yes	No /	Gallons actual	ly evacuated:				
Sampling D	ate:		Sampling Time	e:	Depth to Wate	r:			
Sample I.D.	:			Laboratory:	Kiff CalScience	e Other			
Analyzed fo	r: TPH-G	BTEX	МТВЕ ТРН-D	Oxygenates (5)	Other:				
EB I.D. (if a	pplicable)	: /	@ Time	Duplicate I.D.	(if applicable):				
Analyzed fo	r: TPH-G	BTEX	MTBE TPH-D	Oxygenates (5)	Other:				
D.O. (if req'	d): Fr	e-purge:		mg/L	Post-purge:	nig/L			
O.R.P. (if reg'd): Pre-purge:				mV	Post-nurge:	mV			

LOW FLOW WELL MONITORING DATA SHEET

Project #	: 110315	149~		Client: 75							
Sampler:					Date: 3/15/11						
Well I.D	: GW-1			Well Diameter: (2) 3 4 6 8							
I	ell Depth:			Depth to Water Pre: 4.20 Post: 4.16							
	Free Prod		,	Thickness of Free Product (feet):							
Referenc	······································	€VQ	Grade	Flow Cell	Type:	YSI PA	o Au				
Purge Meth Sampling M	od: lethod:	2" Grundf Dedicated			Peristaltic I New Tubin	g .	Bladder Pump Other				
Flow Rate:	20	ml/w	1846		Pump Dept	h:	11				
Time	Temp.	рН	Cond. (mS or µ(\$)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or 10)	Observations			
1044	Ruge	start									
(047	15.4	7.24	3973	>1000	0.19	-68,5	600	11.14			
1050	15.1	7.31	2819	21000	0-26	-817	1200	4.13			
1053	15.0	7.33	2444	>1000	0.27	-85.3	1800	4.15			
1056	14.9	7. 34	5535	21000	0.36	-73.0	2400	4.18			
1059	145	7.32	2/66	>1000	0.30	-84.6	3000	4.16			
(102	14.9	7.31	2144	216	16.0	-88.2	3600	4.18			
1106	14.8	7.31	2127	591	0.27	-91.0	4200	4.18			
1108	14.7	7.30	2104	295	0.25	-92.2	4800	4.18			
1111	14.8	7.29	2102	208	0.23	-92.6	5400	4.16			
1114	14.8	7.29	2093	162	0.20	-92.2	6000	4.16			
Did well	dewater?	Yes (No)		Amount a	ectually e	vacuated: 60	as ml			
Sampling	Time: V	115			Sampling						
Sample I.	D.: 6W-	11			Laborator	y: cs	exceptor's				
Analyzed	for:	TPH-G	втех мтв	<		26 COC					
Equipmen	t Blank I.I	D.:	@ Time		Duplicate						

			VELL MONTI	OKING	DATA	SHELL			
Project #:	110315-	P41		Client:	ÆS		3.		
0 1	24	¥ 11.1	Ally T	Date:	3/15	5/w			
Well I.D.:	GW-12			Well D	iameter	·· 🗇 3 4	6 8		
Total Well)): \s.	90	Depth to Water (DTW): 4.15					
Depth to Fr				Thickness of Free Product (feet):					
Referenced	to:	PVC	Grade	D.O. Meter (if req'd): YSI HACH					
DTW with	80% Rech	arge [(H	leight of Water				50		
Purge Method:	Bailer Disposable B Positive Air I Electric Subn	Displaceme	ent Extrac Other			Sampling Metho	Disposable Bailer Extraction Port Dedicated Tubing		
1.9 (Old Case Volume	Gals.) X	3 fied Volum	= <u>5.6</u> nes Calculated Vo	_ Gals.	Well Diamete 1" 2" 3"	er Multiplier We 0.04 4" 0.16 6" 0.37 Oth	<u>Nultiplier</u> 0.65 1.47 er radius ² * 0.163		
Time	Temp (°F or 🖒	рН	Cond. (mS oras)	Turb (NT	idity Us)	Gals. Remove	1 Observations		
1206	16.1	7.37	3159	3100	<u> </u>	2			
1208	i6.0	7.30	2754	>(06	00	Emost of			
1211	19.8	7.25	2683	عماد	>>>	6			
1214	16.0	7.25	2660	>1001	>	7.5			
1217	15.9	7.22	2967	١٥٥١٨	>	9.5			
Did well de	water?	Yes	No /	Gallons	actuall	y evacuated:	7		
Sampling D	ate:		Sampling Tim	e:		Depth to Wat	er:		
Sample I.D.	:		/	Laborat	ory:	Kiff CalScien	ce Other		
Analyzed fo	r: TPH-G	втех	MTBE TPH-D	Oxygena	tes (5)	Sther:			
EB I.D. (if a	applicable)	:/	@ Time	Duplica	te I.D.	(if applicable)	•		
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygena	teg (5)	Other:	**************************************		
D.O. (if req'	d): / Pr	e-purge:		mg/	P	ost-purge:	m ₁ g/L		

Post-purge:

O.R.P. (if req'd):

Pre-purge:

WELL MONITORING DATA SHEET

		- V 9	A DULI INIOINII.	UNINGUALA	I OHIDIT			
Project #:	110315-9	74.		Client: RES	V5-			
α ι	PH			Date: 3/1	15/11			
Well I.D.:	6W-12	-		Well Diameter: ② 3 4 6 8				
Total Well			70	Depth to Wate	er (DTW): 4.0	5		
Depth to Fr	ee Product	t:		Thickness of F	Free Product (fee	et):		
Referenced	to:	EVO	Grade	D.O. Meter (if	req'd):	YSI HACH		
DTW with	80% Rech	arge [(F	leight of Water	Column x 0.20		50		
Purge Method:	Bailer Disposable B Positive Air I Electric Subn	Displaceme		Waterra Peristaltic ction Pump	Sampling Method: Other:	Bailer Disposable Bailer Extraction Port Dedicated Tubing		
1.9 (Case Volume	Gals.) XSpeci	3 ified Volum	= 5.6 nes Calculated Vo	Gals. Gals. Well Diamete 1" 2" 3"	Number Well E	Diameter Multiplier 0.65 1.47 radius ² * 0.163		
Time	Temp (°F or 🖒	рН	Cond. (mS or #3)	Turbidity (NTUs)	Gals. Removed	Observations		
1221	16.0	7.21	3476	21000	11.5			
1224	16.1	7.22	3561	21000	13.5	to change in tubidity		
						3		
			,			:		
Did well de	water?	Yes	No	Gallons actuall	y evacuated:			
Sampling D	ate: 3/45	M	Sampling Time	3 :	Depth to Water	r:		
Sample I.D.	: 6W-X	4/		Laboratory:	Kiff Calscience	Other		
Analyzed fo	r: TPH-G	ВТЕХ	MTBE TPH-D	Oxygenates (5)	Other:			
EB I.D. (if a	pplicable)	<u> </u>	@ Time	Duplicate I.D.	(if applicable):			
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenates (5)	Other:			
D.O. (if req'	d);/ Pr	e-purge:		mg/, P	Post-purge:	^{mg} /L		
O.R.P. (if pe	q'd): Pr	e-purge:		mV P	ost-purge:	mV		

LOW FLOW WELL MONITORING DATA SHEET

Project #	: 110315	5-PH1		Client: PES							
Sampler:					15/11						
Well I.D.	: GW-1	Led		Well Dian		3 4	6 8				
	ell Depth:			Depth to V	Depth to Water Pre: 400 Post:						
Depth to	Free Prod	uct:			Thickness of Free Product (feet):						
Referenc	ed to:	PVO	Grade	Flow Cell	Type:	751 Pa	Plus				
Purge Meth Sampling M		2" Grundf Dedicated			Peristaltic Pump New Tabing Other						
Flow Rate:	20	o ud/mi	^		Pump Dept	h:		and the same of th			
Time	Temp.	рН	Cond. (mS orus)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. orm))	Observations			
1240	Ruge:	stert									
1243	15.7	6.90	2254	>1000	0.38	-49.4	600	4.06			
1246	15.8	6.91	2269	>1000	0.26	-54.3	1200	4.66			
1549	15.7	6.91	2202	الاماد	0.27	-57.4	1800	4.06			
1252	15.7	6.89	2220	>1000	0.28	-59.0	2400	4.06			
1255	15.7	6.90	2227	>1000	0.21	-61.6	3900	4.06			
1258	16.7	6.89	2247	912	0.17	-61.9	3600	4.06			
1301	15.7	6.90	2269	539	0.15	-64.7	4200	4.06			
1304	15.6	6.90	2266	H03	0.12	-66.5	4800	4.06			
1307	15.6	6.91	2274	284	0.13	-67.3	5400	4.06			
1310	15.7	6.92	2291	222	0.12	-69.2	6000	41.06			
Did well o	lewater?	Yes (No		Amount a	nctually e	vacuated: 60	೦೦			
Sampling Time: 1312				<u>.</u>	Sampling	Date: =	15/11				
Sample I.I	D.: 6w-	-12	·	16 F	Laborator						
Analyzed	for:	TPH-G	ВТЕХ МТВ	E TPH-D		Other: 5	2e COC				
Equipmen	t Blank I.I	D.:	@ Time		Duplicate						

WELL MONITORING DATA SHEET

Project #:	110315-1	J HC		Client: PES						
Sampler: 3	PH			Date: 3/15/11						
Well I.D.:	5w-13			Well Diameter: (2) 3 4 6 8						
Total Well)): _{15.5}	85	Depth to Water (DTW): 4.10						
Depth to Fr	ee Product				Thickness of Free Product (feet):					
Referenced	to:	PVG	Grade	D.O. Meter (if req'd): YSI HACH						
DTW with 8	80% Rech	arge [(F	Height of Water	er Column x 0.20) + DTW]: 6.45						
Purge Method:	Sampling Method Other	: Bailer Disposable Bailer Extraction Port Dedicated Tubing								
1 Case Volume	Gals.) X Speci	3 fied Volum	= 5.6 Calculated Vo	_ Gals. olume	1" 2" 3"	0.04 4" 0.16 6" 0.37 Other	0.65 1.47 radius ² * 0.163			
Time	Temp	pН	Cond. (mS or (18))	i	bidity TUs)	Gals. Removed	Observations			
1417	16.2	7.54	\659	>100	00	2	Sheen			
1420	15.2	7.20	1573	ووالا	0	4				
1422	15.0	7.16	1623	وواذ	υ	Ġ				
[424	14.5	7.19	1593	2100).O	7.5				
1427	15.0	718	1545	∞ار	·	9.5				
Did well dev	water?	Yes	No	Gallon	s actuall	ly evacuated:				
Sampling Da	ate:		Sampling Time	e:		Depth to Wate	r:			
Sample I.D.	•			Labora	itory:	Kiff CalScience	e Other			
Analyzed fo	r: TPH-G	BTEX	MTBE TPH-D	Oxygen	ates (5)	Other:				
EB I.D. (if a	pplicable)	: /	@ Time	Duplic	ate I.D.	(if applicable):				
Analyzed fo	r: TPH-G	BTEX	MTBE TPH-D	Oxygen	ates (5)	Other:				
D.O. (if req'o	d): /Pr	e-purge:		mg _/	Р	ost-purge:	mg/L			
O.R.P. (if re	q'd);/ Pr	e-purge:		/mV	P	ost-purge:	mV			

LOW FLOW WELL MONITORING DATA SHEET

Project #:	110315-	[HY-		Client:	PES	* 4		:			
Sampler:	PH	2		Date: 3/	13 <i>/</i> 1						
Well I.D.:	GW-13	3		Well Dian	Well Diameter: ② 3 4 6 8						
Total Wel	l Depth:	15.85	4.	Depth to V	Depth to Water Pre: 4.10 Post: 41.10						
Depth to I	Free Produ	uct:		Thickness of Free Product (feet):							
Reference	d to:	EVE	Grade	Flow Cell	Type: >	TI POT	her .				
Purge Metho Sampling Me		2" Grundf Dedicated	· · · · · · · · · · · · · · · · · · ·		Peristaltic I New Dubin		Bladder Pump Other				
Flow Rate: _		mldhin	2009	.*	Pump Dept	h:	<u>(</u>				
Time	Temp. ⊘or °F)	рН	Cond. (mS oras)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or mb)	Observations			
1438	Puge s	tect	·					<i>b</i>			
1441	i5.6	7.11	1414	21000	0.67	-47,4	600	4.10			
1444	15.4	7.10	1421	0001 ک	0.39	-54,4	1200	4.10			
1447	15.3	7.09	1415	غان ال	0.77	-60.2	1800	4.10			
1450	15.2	7.09	1424	51000	O.74	-63.1	2400	4.10			
1453	15.1	7.08	1452	21000	0.23	-61.0	3000	4.10			
1456	15.0	7.10	1311	21000	0.23	-70.9	3600	4.10			
1459	14.9	7.11	1210	21000	0.26	-75.2	4200	41.10			
1502	14.5	7.12	1177	000 ^ر	0.26	-71.2	4800	4.16			
1505	14.7	7.12	1164	862	0.25	-80.3	5400	4.10			
1508	14.6	7.11	1157	612	0.22	-81.4	6000	4.10			
Did well de	ewater?	Yes <	Nà		Amount a	ictually e	vacuated: 600	25 ML			
Sampling 7	ſime: ເ	510			Sampling	Date: ع	13/1				
Sample I.D):: GW-	.13			Laborator	у: С	reconstant. K 1				
Analyzed f	or:	TPH-G	втех мтв	E TPH-D	4	Other: 5	ecoc				
Equipment	Blank I.I).:	@ Time		Duplicate						

LL MONITORING DATA SHE.

						_ y				
Project #:	110315-1	PH1		Client:	5					
	PH			Date: 3/16						
Well I.D.:	GW-8			Well Diamete		6 8				
Total Well		D): 15	-88	Depth to Wate	Depth to Water (DTW): 6 10					
Depth to F	ree Produc				Thickness of Free Product (feet):					
Referenced	l to:	ęýc	Grade	D.O. Meter (i		YSI HACH				
DTW with	80% Rech	narge [(J	Height of Water	Column x 0.20)) + DTW]: §.	DS				
Purge Method:		Bailer Displacem		Waterra Peristaltic ction Pump	Sampling Method	l: Bailer Disposable Bailer Extraction Port Dedicated Tubing				
Pe sour	art (2) 687	23		Well Diame	eter Multiplier Well	Diameter Multiplier 0.65				
1. Case Volume	Gals.) X Spec	3 ified Volum	$=\frac{1.7}{\text{mes}}$ Calculated Vo	Gals. 2"	0.16 6" 0.37 Othe	1.47				
	T		T			· ·				
Time	Temp (°F or ©)	рН	Cond. (mS or aS)	Turbidity (NTUs)	Gals. Removed	Observations				
6826	15.2	7.35	930H	>1000	ang des					
6528	15.0	7.68	9 <i>9</i> 51	G001¢	3.5					
0830	15.2	7.76	10260	21000	5					
6530	i5-6	7.72	10943	21000	6.5					
6835	K-8	7.57	11246	ده ۱۵ د	8					
Did well dev	vater?	Yes	No /	Gallons actuall	y evacuated:	/				
Sampling Da	ate:		Sampling Time	2:	Depth to Wate	r:				
Sample I.D.:				Laboratory:	Kiff ÇalScience	e Other				
Analyzed for	r: трн-G	втех	MTBE TPH-D	Oxygenates (5)	Other:					
EB I.D. (if a	pplicable):	:/	(a) Time	Duplicate I.D.	(if applicable):					
Analyzed for	r: TPH-G/	BTEX	······································	Oxygenates (5)	Other:					
O.O. (if req'o	i): Pro	e-purge:	AND THE RESERVE OF THE PROPERTY OF THE PROPERT	mg/L P	ost-purge:	$^{\mathrm{mg}}/_{\mathrm{L}}$				

mV

Post-purge:

O.R.P. (if req'd):

Pre-purge:

WELL MONITORING DATA SHEET

Project #: 110315-PH1	Client: PES	
Sampler: PH	Date: 3/16/11	
Well I.D.: Gw-8	Well Diameter: ② 3 4 6	8
Total Well Depth (TD): いろって	Depth to Water (DTW): 6.10	
Depth to Free Product:	Thickness of Free Product (feet):	
Referenced to:	D.O. Meter (if req'd): YSI	HACH
DTW with 80% Recharge [(Height of Water	er Column x 0.20) + DTW]: 8.05	
Purge Method: Bailer	Waterra Sampling Method:	Bailer

Purge Method: Bailer Waterra Sampling Method: Bailer
Disposable Bailer Peristaltic Disposable Bailer
Positive Air Displacement Extraction Pump
Electric Submersible Other______ Other:

	Well Diameter	Multiplier	Well Diameter	Multiplier
	1"	0.04	4"	0.65
$\frac{1}{2}$ Gals $\frac{1}{2}$ $\frac{1}{2}$ Gals	2"	0.16	6"	1.47
(Gais.) A Gais.	3"	0.37	Other	radius ² * 0.163
1 Case Volume Specified Volumes Calculated Volume				

Time	Temp (°F or °C)	рН	Cond. (mS oras)	Turbidity (NTUs)	Gals. Removed	Observations	
टहरू	15.2	7.61	10734	21000	(0)		
68 ⁴ 0	15.4	7.55	91246	31000	11.5		
paga propries program and the lead to the paga paga and an also accordist to the con-							
			AND				
Did well de	water?	Yes	No /	Gallons actuall	y evacuated:		
Sampling D	ate:		Sampling Tim	e: Depth to Water:			
Sample I.D.	•	p		Laboratory:	y: Kiff CalScience Other		
Analyzed fo	r: TPH-G	втех	MTBE TPH-D	Oxygenates (5)	Other:		
EB I.D. (if a	applicable)		@ Time	Duplicate I.D.	(if applicable):		
Analyzed fo	r: тры-G	BTEX	MTBE TPH-D	Oxygenates (5)	Other:		
D.O. (if req'	d);/ Pr	e-purge:		mg/L F	ost-purge:	$^{\sf mg}/_{ m L}$	
O.R.P. (if re	q'd): Pr	e-purge:		mV F	ost-purge:	mV	

LOW FLOW WELL MONITORING DATA SHEET

					A CIUIII		CAREEZE E				
Project #	: No315-	-P41		Client:	Client: RES						
Sampler:				Date:	Date: 3/16/11						
Well I.D	.: GW-8	.j			Well Diameter: 2 3 4 6 8						
1	ell Depth:			Depth to	Water	Pre: 6	5,43 Post:	6-24			
	Free Prod			Thickness							
Referenc	ed to:	eve	Grade	Flow Cell	Туре:	757 (800	Plus				
Purge Meth Sampling M		2" Grund: Dedicated	•		Peristaltic New Tubir	Pump	Blander Pump Other				
Flow Rate:	2.	20 mel	nh		Pump Dept	th:	11				
Time	Temp.	рН	Cond. (mS or uS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. or (L)	Observations			
<u>0907</u>	Ruge :	steet									
0910	16-3	7.30	11394	327	0.91	-12.6	600	643			
0913	16.4	7.32	11427	236	0.88	-24.7	1200	6.41			
0916	16.3	7.33	11461	176	0.84	-30.6	1800	6.39			
09(9	16.9	7.33	11448	142	0.50	-31.4	2400	6.36			
0322	16.5	7.35	11443	iU	0.78	-33.7	3000	6.33			
0925	16-5	7.34	11454	104	0.77	-35.3	3600	6.30			
0928	16.5	7.36	11592	79	0.75	-37.1	4200	6.28			
0931	(6.5	7.41	11486	69	0.73	-384	4800	6.26			
C934	16,5	7.45	11497	60	0.72	-39.1	5400	6.24			
6937	16.5	7.42	11484	57	0.71	-40.5	6000	6.24			
Did well o	dewater?	Yes (No		Amount	actually e	evacuated: 60	00 ml			
Sampling	Time:	09.3 8			Sampling	g Date:	3/16/11				
Sample I.					Laboratory: CST						
Analyzed	for:	TPH-G	втех мте	BE TPH-D	Other: See Cox						
Equipmen	nt Blank I.l	D.:	@ Time		Duplicate						

LOW FLOW WELL MONITORING DATA SHEET

Project #:	110315-7	14	·	Client: PES						
Sampler:				Start Date: 3/16/11						
	6w-9			Well Diam	eter: 2	3 4	6 8			
	ll Depth:	15.80		Depth to W	Vater	Pre:	Post:	4.16		
	Free Produ			Thickness	of Free Pr	oduct (fee	et):			
Reference		W C	Grade	Flow Cell	Type:	7/51 Ro	Plus			
Purge Metho Sampling M		2" Grundfo	Tubing		Peristaltic P New Tubing Pump Deptl	5	Bladder Pump Other_			
Flow Rate.					T					
Time	Temp.	рН	Cond. (mS or (uS)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (gals. ormil)	Observations		
1044	Russe	start.	4972	مملد	0.45	-847				
1047	14.9	7.01	4972	21000	0.45	-84.7	600	4.16		
loso	14.6	6.93	4842	21000	0.40	-92.0	1200	4.16		
1053	14.4	6.90	5086	31000	0.29	-101.2	1800	4.6		
1056	14.2	6.88	SOLL	716	0.26	-1047	2400	4.16		
1059	14.1	6.90	4655	447	6.25	-106.8	3000	4.16		
1102	14.0	6.95	4075	151	6.25	-107.3	3600	4.16		
1105	13.9	7.90	3518	63	0.25	-107.7	4200	4.16		
1108	13.9	7.03	3501	45	0.23	-107.9	4800	4.16		
1111	13.9	7.04	3464	35	0.32	-108.4	5400	4.16		
1114	13.9	7.06	3446	24	0.22	-108.8	6000	4.16		
Did well	dewater?	Yes	No		Amount	actually	evacuated: 60	000		
Samplin	g Time:	1115		and the second of the second o	Samplin	g Date: 💈	3/6/11			
	I.D.: Gu			ngan gagagan an ang ang kuthuphan ka kana a Manadabba An	Laborat	ory: $_{\bigcirc z}$	ST.			
Analyze		TPH-G	BTEX M	TBE TPH-D						
-	ent Blank	I.D.:	@ Time		Duplicate I.D.:					

WELL MONITORING DATA SHEET

Project #: WO315-PH1	Client: PES						
Sampler: PH	Date: 3/16/11						
Well I.D.: 6w-9	Well Diameter: 2 3 4 6 8						
Total Well Depth (TD): じる	Depth to Water (DTW): 4.16						
Depth to Free Product:	Thickness of Free Product (feet):						
Referenced to:	D.O. Meter (if req'd): YSI HACH						
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.48							
D 3/11 D 3							

Purge Method: Bailer Waterra Sampling Method: Bailer
Disposable Bailer Peristaltic Disposable Bailer
Positive Air Displacement Extraction Pump
Electric Submersible Other Dedicated Tubing
Other:

Ruse Start @ 1012 Well Diameter Well Diameter Multiplier Multiplier 0.04 0.65 5.6 6" 2" 0.16 1.47 (Gals.) X Gals. 3" 0.37 Other radius² * 0.163 1 Case Volume Specified Volumes Calculated Volume

	·		CALL THE STATE OF					
Time	Temp	pН	Cond. (mS or _A S)	Turbidity (NTUs)	Gals. Removed	Observations		
1014	15.8	7.49	3767	21000	2_			
1016	15.9	7.11	3635	>1000	4			
1019	15.9	7.02	4129	21000	6			
1021	16.1	6.99	4172	الاصوالا	7.5			
1023	163	6.95	4241	71000	9			
Did well de	water?	Yes	No /	Gallons actual	ly evacuated:			
Sampling D	ate:		Sampling Tim	ne: Depth to Water:				
Sample I.D.	•			Laboratory: Kiff CalScience Other				
Analyzed fo	r: TPH-G	втех	MTBE TPH-D	Oxygenates (5)	Other:			
EB I.D. (if a	pplicable)		@ Time	Duplicate I.D. (if applicable):				
Analyzed fo	r: тры-G	BTEX	MTBE TPH-D	Oxygenates (5)	Other:			
D.O. (if req'	d): Pr	e-purge:		mg/L F	Post-purge:	mg/L		
O.R.P. (if re	q'd): Pr	e-purge:		mV F	Post-purge:	mV		

Extraction Port

WELL MONITORING DATA SHEET

Project #: \\03\5-PH\	Client: P65							
Sampler: PM	Date: 3/16/11							
Well I.D.: 6w-9	Well Diameter: ② 3 4 6 8							
Total Well Depth (TD): 15.80	Depth to Water (DTW): 4.16							
Depth to Free Product:	Thickness of Free Product (feet):							
Referenced to: VO Grade	D.O. Meter (if req'd): YSI HACH							
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 648								
Purge Method: Bailer Disposable Bailer	Waterra Sampling Method: Bailer Peristaltic Disposable Bailer							

	Electric Submersible		Other	Other			Other:	Dedicated Tubing	
					Well Diameter	Multiplier	Well Diameter	Multiplier	
		ine.			1"	0.04	4"	0.65	
1.8	(Gals.) X	3 =	5.6	Gals.	2"	0.16	6"	1.47	
10 37.1	. ,	137 1	011.11		3"	0.37	Other	radius ² * 0.163	

Extraction Pump

Calculated Volume

Positive Air Displacement

Specified Volumes

1 Case Volume

Time	Temp	pН	Cond. (mS oras)	Turbidity (NTUs)	Gals. Removed	Observations
1026	16.3	6.96	4219	ळवाद	a market	
1028	16.5	6.96	4537	روواد	13	
Did well dev	water?	Yes	No	Gallons actual	ly evacuated:/	
Sampling D	ate:		Sampling Tim	e: Depth to Water:		
Sample I.D.	o •	gg		Laboratory: Kiff CalScience Other		
Analyzed fo	r: TPH-G	втех	MTBE TPH-D	Oxygenates (5)	Øther:	Š
EB I.D. (if a	pplicable)	:/	@ Time	Duplicate I,D.	(if applicable):	
Analyzed fo	r: TPH-6	BTEX	MTBE TPH-D	Oxygenates (5)	Other:	
D.O. (if req'	d): Pr	e-purge:		mg/L	Post-purge:	$^{\sf mg}/_{ m L}$
O.R.P. (if re	q'd): Pr	e-purge:		mV	Post-purge:	mV

PURGE DRUM INVENTORY LOG

CLIENT PES							
SITE ADDRESS 64 de au	s. O.a	she. A	ı.d	Cirran di	No.		
			· · · · · · · · · · · · · · · · · · ·				
STATUS OF DRUM(S) UPO			4				
DATE			 				
Number of drum(s) empty:							
Number of drum(s) 1/4 full:					<u> </u>		
Number of drum(s) 1/2 full:			ļ				
Number of drum(s) 3/4 full:							
Number of drum(s) full:	Rig						
Total drum(s) on site:	<u> </u>						
Are the drum(s) properly labeled?							
Drum ID & Contents:	Sail						
STATUS OF DRUM(S) UPO						<u> </u>	
DATE	3/4/1						
Number of drum(s) empty:							
Number of drum(s) 1/4 full:	1 844						
Number of drum(s) 1/2 full:		_					
Number of drum(s) 3/4 full:	 						
Number of drum(s) full:	1 600 701			NO. 14 SECTION OF THE PROPERTY.			
Total drum(s) on site:							
Are the drum(s) properly labeled?	34x						
Drum ID & Contents:	Regunder						
LOCATION OF DRUM(S)							
Describe location of drum(s): \n;	siele Zo	y door	a=\ 6	390 C	A sitte	re	
FINAL STATUS							
Number of new drum(s) left on							
site this event:	2					1	
Date of inspection:	3/16/15						
Logged by BTS Field Technician:	TRH /-						
Office reviewed by:	1/4/						

APPENDIX D

WELL SURVEY RESULTS

PLS Surveys Inc.

6340-6390 Christie Ave, Emeryville CA

05/09/2011

GLOBAL_ID	FIELD_PT_NAME	FIELD PT CLASS	XY_SURVEY_DATE	LATITUDE	LONOTITUDE	Mr. Committee					02/09/2
			XI_OUNTE(_DATE	LATITUDE	LONGTITUDE	XY_METHOD	XY_DATUM	XY_ACC_VAL	XY_SURVEY ORG	GPS_EQUIP_TYPE	XY SURVEY DESC
											THE CONTRACT DESC
	GW-12		03/30/2011	27.0420204	100 000000						
	GW-11		03/30/2011	37.8429321	-122.2950672	RTK	NAD83	1	PLS Surveys Inc.	L530	#11
	GW-10		03/30/2011	37.8430750	-122.2947699	RTK	NAD83	1	PLS Surveys Inc.	L530	#12
	GW-9			37.8432867	-122.2948646	RTK	NAD83	1	PLS Surveys Inc.	L530	#13
	GW-8		03/30/2011	37.8435988	-122.2951027	RTK	NAD83	1	PLS Surveys Inc.	L530	
	GW-13		03/30/2011	37.8435013	-122.2955466	RTK	NAD83	1	PLS Surveys Inc.		#14
-	044-10		03/30/2011	37.8430730	-122.2954397	RTK	NAD83	1	PLS Surveys Inc.	L530	#15
									r Lo ourveys inc.	L530	#16

No. 5254

Exp. 31

OF CALIFORNIA

PLS Surveys Inc.

6340-6390 Christie Ave, Emeryville CA

					to do so cambrie :	tve, Emeryvine CA				
GLOBAL_ID	FIELD_PT_NAME	ELEV_SURVEY_DATE	ELEVATION	ELEV_METHOD	ELEV_DATUM	ELEV_ACC_VAL	ELEV_SURVEY_ORG	RISER HT	ELEV DESC	EFF DATE
	GW-12	03/30/2011	12.30	DIG	88					
	GW-11	03/30/2011	13.30	DIG	00	3	PLS Surveys Inc.		#11	
	GW-10	03/30/2011	13.53	DIG	00	3	PLS Surveys Inc.		#12	
	GW-9	03/30/2011	11.68		88	3	PLS Surveys Inc.		#13	
	GW-8	03/30/2011		DIG	88	3	PLS Surveys Inc.		#14	
	GW-13		11.66	DIG	88	3	PLS Surveys Inc.		#15	
	0,11-10	03/30/2011	11.70	DIG	88	3	PLS Surveys Inc.		#16	

05/09/2011

No. 5254

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APPENDIX E

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY FORMS (ON CD-ROM)





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 226605 ANALYTICAL REPORT

PES Environmental, Inc. Project : 241.082.02.001

1682 Novato Boulevard Location: 64th & Christie/Emeryville, CA

Novato, CA 94947 Level : II

Sample ID	<u>Lab ID</u>
SB-9-2.5	226605-001
SB-9-6.5	226605-002
SB-9-12.5	226605-003
SB-12-2.5	226605-004
SB-12-7.5	226605-005
SB-12-12.5	226605-006
SB-7-2.5	226605-007
SB-7-5.0	226605-008
SB-7-12.0	226605-009
SB-8-2.5	226605-010
SB-8-6.5	226605-011
SB-8-12.5	226605-012

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

	Deinee 71	. Tetraelt
ignature:		

Project Manager

Date: <u>03/22/2011</u>

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 226605

Client: PES Environmental, Inc.

Project: 241.082.02.001

Location: 64th & Christie/Emeryville, CA

Request Date: 03/14/11 Samples Received: 03/14/11

This data package contains sample and QC results for twelve soil samples, requested for the above referenced project on 03/14/11. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

Matrix spikes QC584297,QC584298 (batch 172897) were not reported because the parent sample required a dilution that would have diluted out the spikes. Many samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

Matrix spikes were not performed for this analysis in batch 172812 due to insufficient sample amount. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):

No analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

High recoveries were observed for chromium, copper, and vanadium in the MS/MSD for batch 172807; the parent sample was not a project sample, the BS/BSD were within limits, and the associated RPDs were within limits. Low recovery was observed for mercury in the MS of SB-9-2.5 (lab # 226605-001); the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

PES Environmental, Engineering & Environmental Se	Inc.	, _{OS} CHAIN	OF CUSTO	ĐΥ
			_	

1682 NOVATO BOULEVARD, SUITE 100 NOVATO, CALIFORNIA 94947 (415) 899-1600 FAX (415) 899-1601

LABORATORY: C + \	SAMPLERS:	K. Simunons		ANALYSIS REQUES	TED	
JOB NUMBER: 241.082.02	00)			(A)		
NAME/LOCATION: 64 th Chris	Stie/Energuille, Cl	l4				
NAME / LOCATION: GHT Chris	RECORDER:	K-Simmons		10 21 5/8015M 5/8015M 5/100 15/100 15/100 15/100 16		£
D	MATRIX MPLE NUMBER / ESIGNATION	# of Containers & Preservatives	DEPTA IN FEET	15/802 15/802 15/826 15/826 18015 18015 18015 18015 18015 18015		
YR MO DY TIME	Vapor Vapor Soill Soill 1	Unpres. EnCore H2SO4 HNO3 HCI McTexcl	/ EE!	EPA 503 EPA 503 EPA 503 TPHg by TPHHo EPA 827 MNA Pa		
1110314092553-	-9-25 X	EnCore H2SO ₄ HNO ₃ HCI HCI TATES.		XXXX		
2 11111095053				XXX		
<u>u </u>	-9-125			XXX		
	12-25			XXXX		
5 1 0 30 SB-	-12-7.5			XXX		
11505B-	- 12 - 12 5			XXXX		111
9 1 435 SB- 9 1 450 SB-	-7-75	14		XXXXX		
9 1 1 5 1 5 5 3 -	7-12.2			XXX		
				XXX		
1 15454B-	8-75			XXXXX	+ + +	
1201111160053	-8-123			XXXXX		
NOTES			CHAIN OF C	SUSTODY RECORD		
Turn Around Time: Standaria (RELINQUISHED BY: (Signature) RELINQUISHED BY: (Signature)		DBY. (Signature) DBY: (Signature)	DAYE JOAYE I	TIME
for possible ST	oles, after analysis		, incocive	O C 1. (Lity lattice)	A TUAYETY	TIME
tor possible ST	LC/TCLP.	RELINQUISHED BY: (Signature)	RECEIVE	D BY: (Signature)	DATE	TIME
	K 07 (CL	RELINQUISHED BY: (Signature)	RECEIVE	D BY: (Signature)	DATE	TIME
COW	& or id	DISPATCHED BY: (Signature)	DATE TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
ω Page of 1		METHOD OF SHIPMENT:		1	1	

WHITE-Laboratory COPY YELLOW-Project Office Copy PINK-Field or Office Copy

COOLER RECEIPT CHECKLIST



SOP Volume: Client Services

Section:

1.1.2

Page: 1 of 1

Rev. 6 Number 1 of 3

Effective: 23 July 2008

Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc

Desiree Tetrault

From:

"Chris Baldassari" <cbaldassari@pesenv.com>

To:

"Desiree Tetrault" <desiree.tetrault@ctberk.com>; "Ken Simmons" <KSimmons@pesenv.com>

Sent:

Monday, March 21, 2011 12:56 PM

Subject:

RE: 241.082 adjustments

Hi Desiree,

We don't need gravity separation for the sample, but would like silica-gel cleanup performed; please no reporting/analysis for without silica gel.

The digestion fee on analyses started already sounds fair to me; we just want to be clear on which ones shouldn't have metals reported (indicated in the COCs sent by Kenny)

Thanks, Chris

From: Desiree Tetrault [mailto:desiree.tetrault@ctberk.com]

Sent: Monday, March 21, 2011 12:52 PM

To: Ken Simmons **Cc:** Chris Baldassari

Subject: Re: 241.082 adjustments

Hey Ken and Chris- thanks for the update. There shouldn't be any problems changing the IDs and the requests for analyses, although for logins 226688 and 226712 we have already prepped the samples for the metals. I can remove the analyses that you listed, but will have to charge a \$10 digestion fee for the ones already started.

Could you confirm that you do or do not need gravity separation for the last water sample (226732-001) submitted on Friday? Also, do you need the results to be reported with and without silica gel cleanup?

Thank you and please feel free to call with any questions.

Desirée Tétrault Project Manager Curtis and Tompkins, Ltd 2323 Fifth Street Berkeley CA 94710 510.204.2221

www.curtisandtompkins.com

---- Original Message ----- From: Ken Simmons

To: desiree.tetrault@ctberk.com

Cc: Chris Baldassari

Sent: Monday, March 21, 2011 10:58 AM

Subject: 241.082 adjustments

Morning Desiree -

After reviewing the log-in sheets and COCs, there are a few adjustments to sample names and analysis that we would like to see.

PES Environm Engineering & Environ LABORATORY: C - T	lental, Inc. 2244 mental Services 2244	₀₀₅ CHA	IN OF CUSTODY K:Sivvivucivis	RECOR	(110,000 1000 111	PRNIA 94947 ((415) 899-1601
JOB NUMBER: 241-082	1 6.2 661	SAMPLERS:	V SIMMAN		ANALYSIS REQUES	red
JOB NUMBER: 2 11 + U U Z	Chaich /=	3.4		····	-	
NAME/LOCATION: 64 H	Christie/Enve	y ville, C	<u>4</u>	······································		
PROJECT MANAGER: LO NV	45+	RECORDER:	K.Simmons		O OB TACKS MA MA SEVICES SEVICES SEVICES SEVICES MACINE (60 108	
DATE	SAMPLE NUMBER /	MATRIX	# of Containers & Preservatives	DEPTH	5035-8010 5035-8010 5035-8015-M 9015-M 9015-M 2 L MACK	
YR MO DY TIME	DESIGNATION	Vapor Water Soil Sedim't	Unpres. Encore HeSOs. HINDS HINDS HCI Methods Colored Methods Colored Methods M	FEET	EPA 5035/8021 EPA 5035/8021 EPA 5035/80216 TPHG by 5035/8015M TPHM by 8015M EPA 8270C — SUCCS MNA Parameters (806 notes)	
11103140925	53-9-25	X	1 12		XXX	
21111110950	33-4-726.5	4			YXXXX	
3 1 1 1 1 1 1 1 1 0	SB-91-125				XXX	
1040	513-12-25				XXXX	
5 1 0 30	3-12-75				T X X X X	
4 1150	53-12-125			 	XXX	
1 4 3 5	38-7-25		14		XXXXX	
3 1 450			1 1 2		1 XXXX X	
111111515	53-7-12.0		 	 		++++
0 1 1 1 5 3 0	53-6-25	1 1 11 1 1	╅	╏╸╂╶╎╶┝╸╎ ╸	1 Axx X	++++
1545					THINK X	+++++
471111160	58-8-23	 		 		++++
	40 0 10 10 1		1 - 1 1 1 1 1 1 1			<u> </u>
NOT	ES			CHAIN OF	CUSTODY RECORD	
Turn Around Time: Standar	(TAT		RELINQUISHED BY. (Samuel		MED ST. (Squarre)	DAYE TIME
			RELINQUISHED BY: OFFICE	BECEN	VED BY: Property	DASE / TIME
Please intain 5	emples after	analysis				
tor possible	STLS/TCLF	<u> </u>	RELINOUISHED BY: (Signature)	RECEN	VED BY: (Signature)	DATE TIME
	3167166	(0)	RELINOUISHED BY: (Signature)	RECEN	VED BY: (Signature)	DATE TIME
	-010 J		OISPATCHED BY: (Signal-IV)	DATE TIM	IE RECEIVED FOR LAB BY (Separate)	DATE TIME
						<u> L</u>

WHITE-Laboratory COPY YELLOW-Project Office Copy PRRK-Field or Office Copy

METHOD OF SHIPMENT:



Gasoline by GC/FID (5035 Prep)

Lab #: 226605 Location: 64th & Christie/Emeryville, CA

Client: PES Environmental, Inc. Prep: EPA 5035 Project#: 241.082.02.001 Analysis: EPA 8015B

 Matrix:
 Soil
 Batch#:
 172825

 Units:
 mg/Kg
 Sampled:
 03/14/11

 Basis:
 as received
 Received:
 03/14/11

Diln Fac: 1.000

Field ID: SB-9-2.5 Lab ID: 226605-001 Type: SAMPLE Analyzed: 03/17/11

Type: SAMPLE Analyzed: 03/17/11

 Analyte
 Result
 RL

 Gasoline C7-C12
 ND
 0.15

Surrogate %REC Limits
Bromofluorobenzene (FID) 102 67-140

Field ID: SB-9-6.5 Lab ID: 226605-002 Type: SAMPLE Analyzed: 03/17/11

 Analyte
 Result
 RL

 Gasoline C7-C12
 ND
 0.18

Gasoline C7-C12 ND U.18

Surrogate %REC Limits
Bromofluorobenzene (FID) 96 67-140

Field ID: SB-9-12.5 Lab ID: 226605-003 Type: SAMPLE Analyzed: 03/17/11

Analyte Result RL

Gasoline C7-C12 1.7 Y 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 115 67-140

Field ID: SB-12-2.5 Lab ID: 226605-004 Type: SAMPLE Analyzed: 03/17/11

Analyte Result RL

Gasoline C7-C12 ND 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 115 67-140

Field ID: SB-12-7.5 Lab ID: 226605-005 Type: SAMPLE Analyzed: 03/17/11

AnalyteResultRLGasoline C7-C12ND0.16

Surrogate %REC Limits
Bromofluorobenzene (FID) 104 67-140

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 1 of 3

7.2



Gasoline by GC/FID (5035 Prep)

Location: 64th & Christie/Emeryville, CA 226605 Lab #:

Client: PES Environmental, Inc. EPA 5035 Prep: Project#: 241.082.02.001 Analysis: EPA 8015B

Matrix: 172825 Soil Batch#: Units: mg/Kg Sampled: 03/14/11 Basis: as received Received: 03/14/11 1.000 Diln Fac:

Field ID: SB-12-12.5 Lab ID: 226605-006 Type: SAMPLE Analyzed: 03/17/11

Analyte Result Gasoline C7-C12 ND 0.17

%REC Limits Surrogate Bromofluorobenzene (FID) 114 67-140

Field ID: SB-7-2.5 226605-007 Lab ID: Analyzed: 03/17/11 Type: SAMPLE

Analyte Result Gasoline C7-C12 0.17

67-140

Surrogate %REC Limits Bromofluorobenzene (FID) 108

Field ID: SB-7-5.0 Lab ID: 226605-008 Type: SAMPLE Analyzed: 03/17/11

Analyte Result RLGasoline C7-C12 ND 0.21

%REC Limits

Surrogate Bromofluorobenzene (FID)

Field ID: SB-7-12.0 Lab ID: 226605-009 SAMPLE 03/17/11 Type: Analyzed:

Analyte Result Gasoline C7-C12 1.9 0.23

Surrogate Limits %REC Bromofluorobenzene (FID) 133 67 - 140

Field ID: SB-8-2.5 Lab ID: 226605-010 Type: SAMPLE Analyzed: 03/17/11

Analyte Result Gasoline C7-C12 ND 0.17

Surrogate %REC Limits Bromofluorobenzene (FID) 111

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 2 of 3

7.2



Gasoline by GC/FID (5035 Prep) Location: 64th & Christie/Emeryville, CA 226605 Lab #: EPA 5035 Client: PES Environmental, Inc. Prep: Project#: 241.082.02.001 Analysis: EPA 8015B Matrix: Soil Batch#: 172825 Units: mg/Kg Sampled: 03/14/11 Basis: as received Received: 03/14/11 1.000 Diln Fac:

Field ID: SB-8-6.5 Lab ID: 226605-011 Type: SAMPLE Analyzed: 03/17/11

 Analyte
 Result
 RL

 Gasoline C7-C12
 1.5 Y
 0.21

Surrogate %REC Limits
Bromofluorobenzene (FID) 84 67-140

Field ID: SB-8-12.5 Lab ID: 226605-012 Type: SAMPLE Analyzed: 03/17/11

Analyte Result RL
Gasoline C7-C12 ND 0.15

Surrogate%RECLimitsBromofluorobenzene (FID)10567-140

Type: BLANK Analyzed: 03/16/11

Lab ID: QC584007

Analyte Result RL
Gasoline C7-C12 ND 0.20

Surrogate %REC Limits
Bromofluorobenzene (FID) 93 67-140

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 3 of 3

7.2



Batch QC Report

Gasoline by GC/FID (5035 Prep)						
Lab #:	226605	Location: 64th & Christie/Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5035				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Type:	LCS	Diln Fac: 1.000				
Lab ID:	QC584006	Batch#: 172825				
Matrix:	Soil	Analyzed: 03/16/11				
Units:	mg/Kg					

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	0.8843	88	79-121

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	105	67-140

Page 1 of 1 8.0



Batch QC Report

Gasoline by GC/FID (5035 Prep)						
Lab #:	226605	Location: 64th & Christie/Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Field ID:	ZZZZZZZZZ	Diln Fac: 1.000				
MSS Lab ID:	226652-001	Batch#: 172825				
Matrix:	Soil	Sampled: 03/16/11				
Units:	mg/Kg	Received: 03/16/11				
Basis:	as received	Analyzed: 03/16/11				

Type: MS Lab ID: QC584070

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1430	9.615	5.742	58	41-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	105	67-140

Type: MSD Lab ID: QC584071

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.615	5.433	55	41-120	6	47

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\075.seq

Sample Name: 226605-003,172825,tvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\075-026

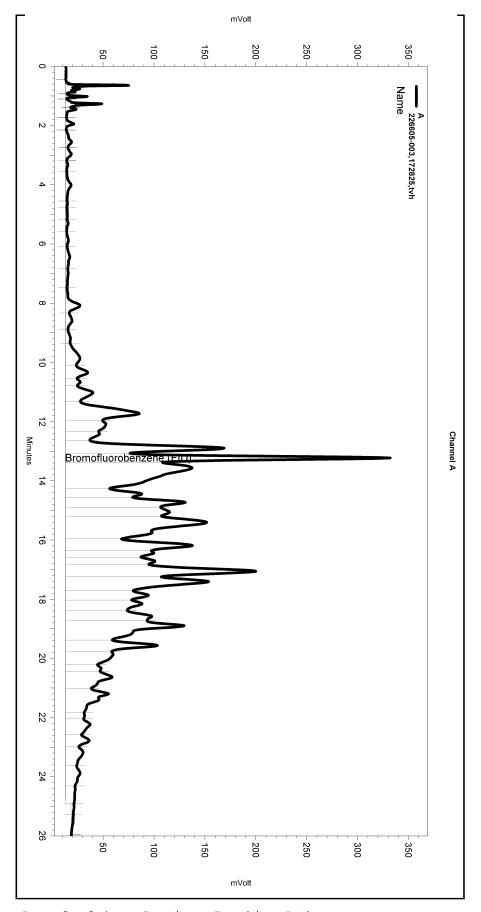
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)

Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/17/2011 3:16:59 AM Analysis Date: 3/17/2011 12:23:38 PM Sample Amount: 5.86 Multiplier: 5.86

Vial & pH or Core ID: a



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Enabled Event Type	(Minutes) (Minutes) Value
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Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\075.seq

Sample Name: 226605-009,172825,tvh

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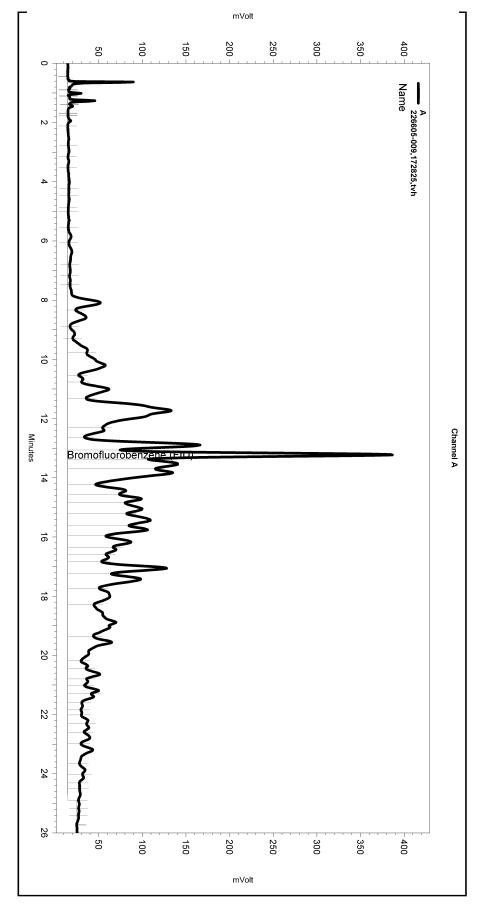
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)

Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/17/2011 6:56:31 AM Analysis Date: 3/17/2011 12:27:21 PM Sample Amount: 4.4 Multiplier: 4.4

Vial & pH or Core ID: a



General Method Parameters >-	
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Integration Events	
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Yes Width Yes Threshold	0 0 0.2 0 0 50
Manual Integration Fixes	
Data File: \\Lims\gdrive\ezchrom\\	
Enabled Event Type	(Minutes) (Minutes) Value
Yes Lowest Point Horizontal B	Baseli 0.493 24.956 (

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\075.seq

Sample Name: 226605-011,172825,tvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\075-037

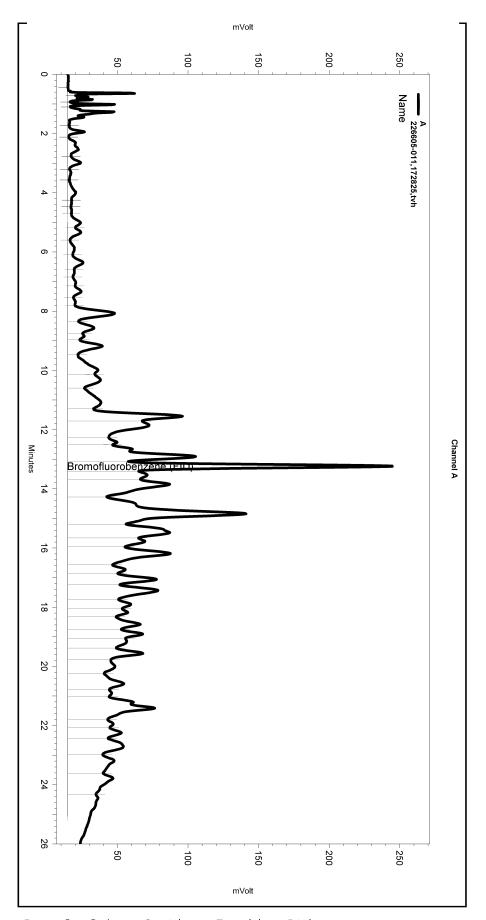
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)

Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/17/2011 9:59:15 AM Analysis Date: 3/17/2011 12:28:38 PM Sample Amount: 4.71 Multiplier: 4.71

Vial & pH or Core ID: a



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, ,						
No item:	s selected for this	section				
Integrati	on Events					
Enable	ed Event Type	Start			linutes)	Value
	Width Threshold		0		0.2 50	
Manual	Integration Fixes					
Data F	File: \\Lims\gdrive\	ezchrom\F Start	Projects\0 Stop	GC05	\Data\07	5-037
Enable	ed Event Type			s) (N	linutes)	Value
Yes	Lowest Point Ho	rizontal Ba	aseli (0.238	25.21	4 0

Sample Name: ccv,tvh,s16862,2.5/5000

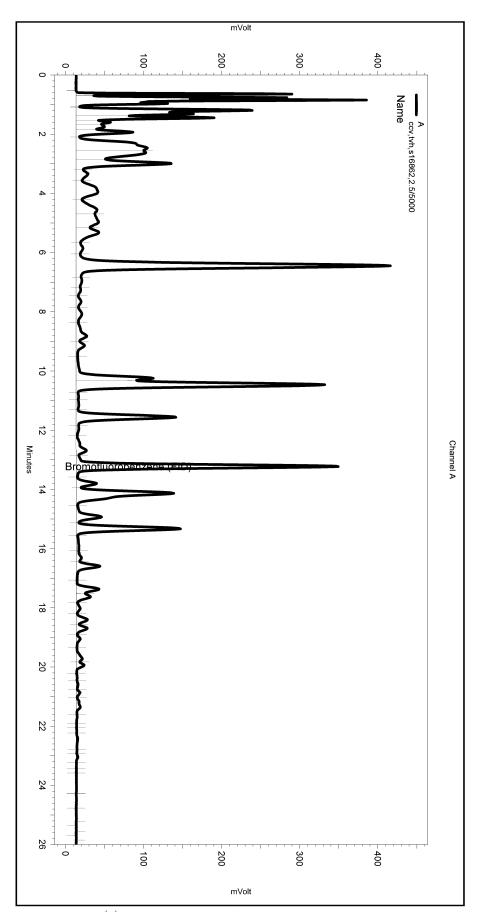
Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\075-002

Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/16/2011 10:48:34 AM Analysis Date: 3/16/2011 11:17:17 AM Sample Amount: 5 Multiplier: 5

Vial & pH or Core ID: {Data Description}



< General Method Parameters >-	
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Integration Events	
Start	
Enabled Event Type	(Minutes) (Minutes) Value
Yes Width Yes Threshold	0 0 0.2 0 0 50
Manual Integration Fixes	
Data File: C:\Documents and Sett Data\ChromatographySystem\Recc Data\Instrument.10048\075-002_B' Start	overy 128.tmp
Enabled Event Type	(Minutes) (Minutes) Value
None	



Total Extractable Hydrocarbons

Location: 64th & Christie/Emeryville, CA Prep: SHAKER TABLE Lab #: 226605

Client: PES Environmental, Inc. Prep: Project#: 241.082.02.001 Analysis: EPA 8015B

Matrix: Soil Sampled: 03/14/11

03/14/11 Units: mg/Kg Received: Basis: as received

Field ID: SB-9-2.5 Batch#: 172844 Type: SAMPLE Prepared: 03/16/11 Lab ID: 226605-001 Analyzed: 03/17/11

Analyte Result Diesel C10-C24 80 Y 2.0 Motor Oil C24-C36 260 10

Surrogate %REC Limits o-Terphenyl 61 52-130

SB-9-6.5 Field ID: Batch#: 172844 Type: SAMPLE Prepared: 03/16/11 Lab ID: 226605-002 03/17/11 Analyzed:

Diln Fac: 2.000

2.000

Diln Fac:

Result RL Analyte Diesel C10-C24 27 Y 2.0 Motor Oil C24-C36 160 10

Surrogate %REC Limits 52-130 o-Terphenyl 69

Field ID: SB-9-12.5 Batch#: 172844 03/16/11 Prepared: Type: SAMPLE Lab ID: 226605-003 Analyzed: 03/17/11

Diln Fac: 5.000

Analyte Result RLDiesel C10-C24 330 Y 5.0 Motor Oil C24-C36 890 25

Surrogate %REC Limits 74 52-130 o-Terphenyl

Field ID: SB-12-2.5 Batch#: 172844 Type: SAMPLE 03/16/11 Prepared: Lab ID: 226605-004 Analyzed: 03/17/11

Diln Fac: 5.000

Analyte Result Diesel C10-C24 Motor Oil C24-C36 5.0 140 470

%REC Limits Surrogate o-Terphenyl

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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10.1



Total Extractable Hydrocarbons

Lab #: 226605 Location: 64th & Christie/Emeryville, CA

Client: PES Environmental, Inc. SHAKER TABLE Prep: Project#: 241.082.02.001

Analysis: EPA 8015B Sampled: 03, Matrix: Soil 03/14/11 Units: mg/Kg Received: 03/14/11

Basis: as received

Field ID: SB-12-7.5 Batch#: 172844 Type: SAMPLE Prepared: 03/16/11 226605-005 Lab ID: Analyzed: 03/17/11

Diln Fac: 2.000

Analyte Result Diesel C10-C24 Motor Oil C24-C36 34 2.0 120 9.9

Surrogate %REC Limits 52-130 o-Terphenyl 74

Field ID: SB-12-12.5 Batch#: 172844 SAMPLE Prepared: 03/16/11 Type: Lab ID: 226605-006 Analyzed: 03/17/11

Diln Fac: 1.000

Analyte Result RLDiesel C10-C24 22 1.0 Motor Oil C24-C36 88 5.<u>0</u>

Surrogate %REC Limits o-Terphenyl

SB-7-2.5Field ID: 172844 Batch#: Type: SAMPLE Prepared: 03/16/11 Lab ID: 226605-007 03/17/11 Analyzed:

Diln Fac: 2.000

Analyte	Result	RL	
Diesel C10-C24	17 Y	2.0	
Motor Oil C24-C36	72	10	

Surrogate %REC Limits 52-130 74 o-Terphenyl

Field ID: SB-7-5.0 Batch#: 172844 Prepared: Type: SAMPLE 03/16/11 Lab ID: 226605-008 Analyzed: 03/17/11 Diln Fac: 1.000

Analyte	Result	RL	
Diesel C10-C24	11 Y	0.99	
Motor Oil C24-C36	51	5.0	

Surrogate	%REC	Limits
o-Terphenyl	87	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 2 of 4 10.1



Total Extractable Hydrocarbons

226605 Location: 64th & Christie/Emeryville, CA Lab #:

Client: PES Environmental, Inc. SHAKER TABLE Prep: Project#: 241.082.02.001

Analysis: EPA 8015B Sampled: 03 Soil Matrix: 03/14/11 Units: mg/Kg Received: 03/14/11

Basis: as received

Field ID: SB-7-12.0 Batch#: 172844 Type: SAMPLE Prepared: 03/16/11 Lab ID: 226605-009 Analyzed: 03/16/11

Diln Fac: 1.000

Analyte	Result	RL	
Diesel C10-C24	63 Y	0.99	
Motor Oil C24-C36	60	5.0	

Currogato	%REC	Timita	
Surrogate	%KEC	Limits	
o-Terphenyl	84	52-130	

Field ID: SB-8-2.5 Batch#: 172844 Type: SAMPLE Prepared: 03/16/11 226605-010 Lab ID: Analyzed: 03/16/11

Diln Fac: 1.000

Analyte	Result	RL	
Diesel C10-C24	3.1 Y	1.0	
Motor Oil C24-C36	14	5.0	

Surrogate	%REC	Limits
o-Terphenyl	79	52-130

SB-8-6.5 Field ID: 172897 Batch#: Type: SAMPLE Prepared: 03/17/11 Lab ID: 226605-011 03/18/11 Analyzed:

Diln Fac: 5.000

Analyte	Result	RL	
Diesel C10-C24	150 Y	5.0	
Motor Oil C24-C36	910	25	

Surrogate	%REC	Limits
o-Terphenyl	9.8	52-130

Field ID: SB-8-12.5 Batch#: 172844 Prepared: Type: SAMPLE 03/16/11 Lab ID: 226605-012 Analyzed: 03/17/11

Diln Fac: 1.000

Analyte	Result	RL	
Diesel C10-C24	32 Y	1.0	
Motor Oil C24-C36	54	5.0	

Surrogate	%REC	Limits
o-Terphenyl	93	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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10.1



Total Extractable Hydrocarbons Location: 64th & Christie/Emeryville, CA Prep: SHAKER TABLE Lab #: 226605 Client: PES Environmental, Inc. Analysis: EPA 8015B Sampled: 03, Project#: 241.082.02.001 Matrix: Soil 03/14/11 Received: Units: mg/Kg 03/14/11 Basis: as received

Type: BLANK Batch#: 172844
Lab ID: QC584081 Prepared: 03/16/11
Diln Fac: 1.000 Analyzed: 03/16/11

Analyte	Result	RL	
Diesel C10-C24	ND	0.99	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
o-Terphenyl	91	52-130

Type: BLANK Batch#: 172897
Lab ID: QC584295 Prepared: 03/17/11
Diln Fac: 1.000 Analyzed: 03/17/11

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits	
o-Terphenyl	92	52-130	

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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	Total Extract	able Hydrocarbons
Lab #:	226605	Location: 64th & Christie/Emeryville, CA
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE
Project#:	241.082.02.001	Analysis: EPA 8015B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC584082	Batch#: 172844
Matrix:	Soil	Prepared: 03/16/11
Units:	mg/Kg	Analyzed: 03/16/11

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.90	26.44	53	44-151

Surrogate	%REC	Limits
o-Terphenyl	63	52-130

Page 1 of 1 11.0



	Total Extract	able Hydrocarbons
Lab #:	226605	Location: 64th & Christie/Emeryville, CA
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE
Project#:	241.082.02.001	Analysis: EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#: 172844
MSS Lab ID:	226651-002	Sampled: 03/16/11
Matrix:	Soil	Received: 03/16/11
Units:	mg/Kg	Prepared: 03/16/11
Basis:	as received	Analyzed: 03/17/11
Diln Fac:	1.000	

Type: MS Lab ID: QC584083

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	42.02	49.80	85.27	87	39-146

Surrogate	%REC	Limits
o-Terphenyl	83	52-130

Type: MSD Lab ID: QC584084

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.00	69.80	56	39-146	20	61

	Surrogate	%REC	Limits
o-Terphen		83	52-130

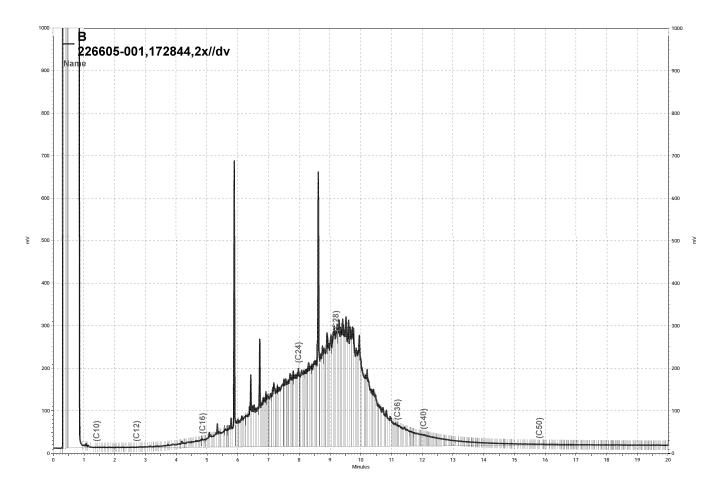


	Total Extrac	table Hydrocarbons
Lab #:	226605	Location: 64th & Christie/Emeryville, CA
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE
Project#:	241.082.02.001	Analysis: EPA 8015B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC584296	Batch#: 172897
Matrix:	Soil	Prepared: 03/17/11
Units:	mg/Kg	Analyzed: 03/17/11

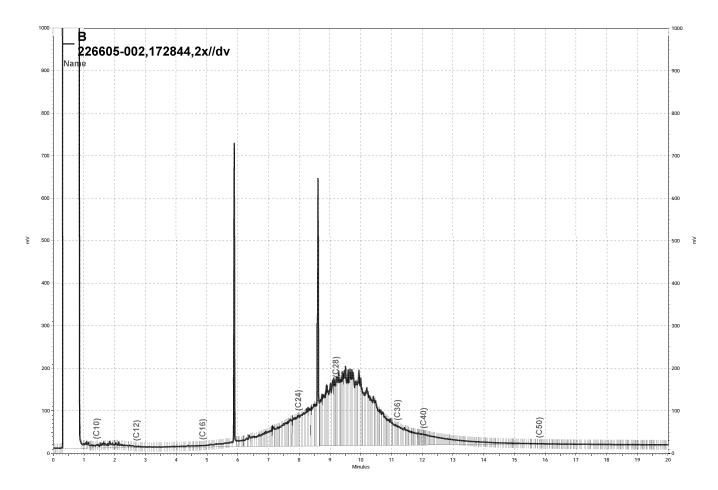
Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.40	40.39	80	44-151

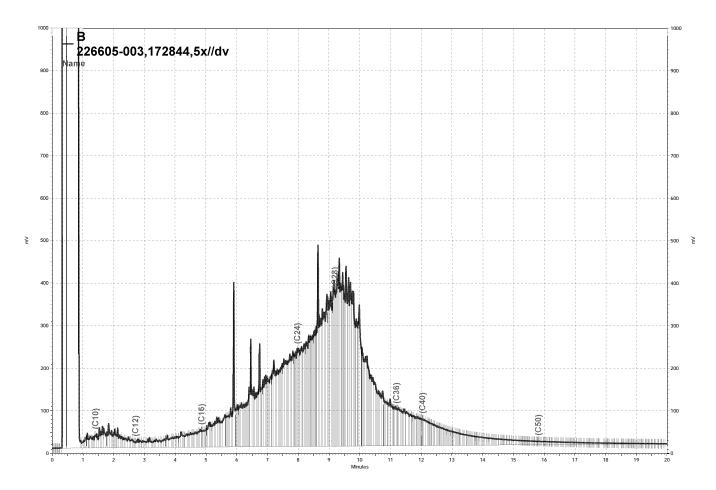
Surrogate	%REC	Limits
o-Terphenyl	84	52-130



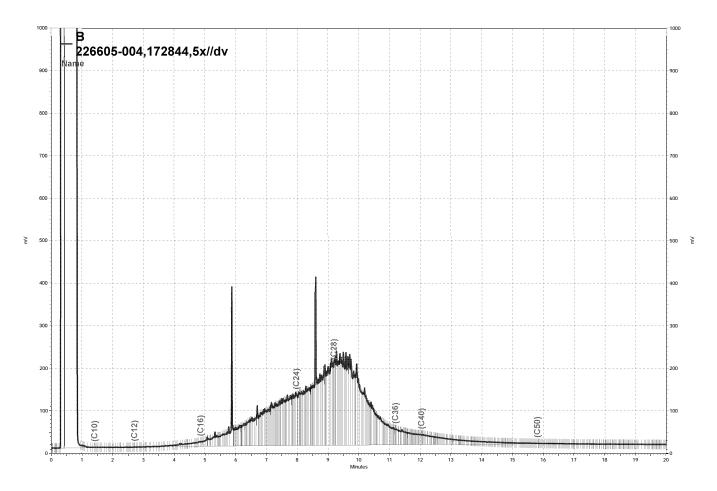
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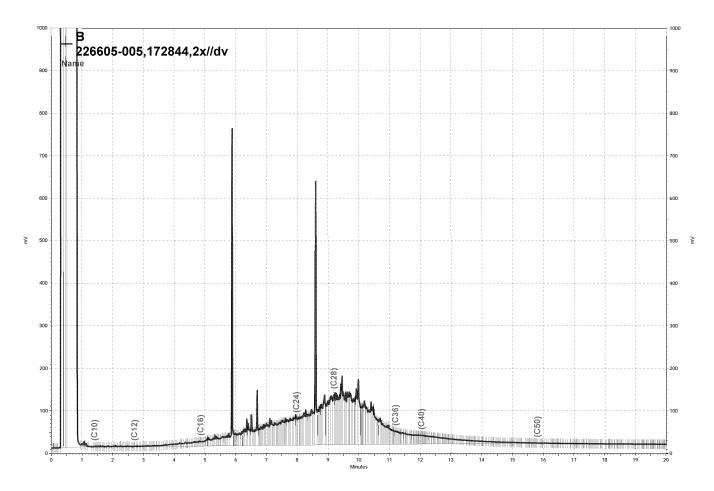
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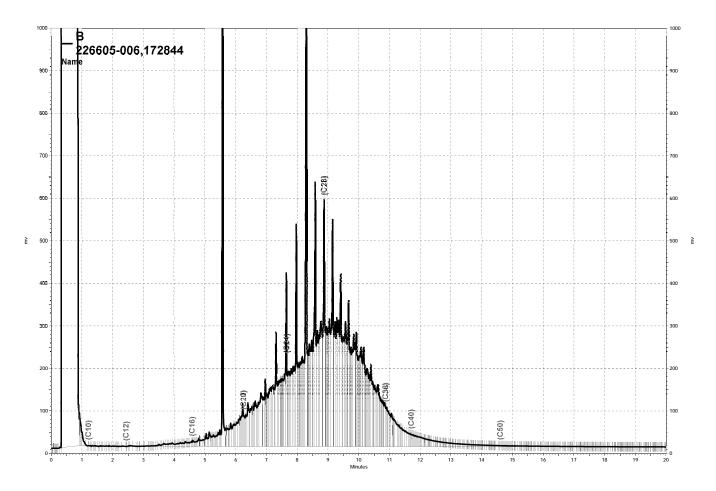
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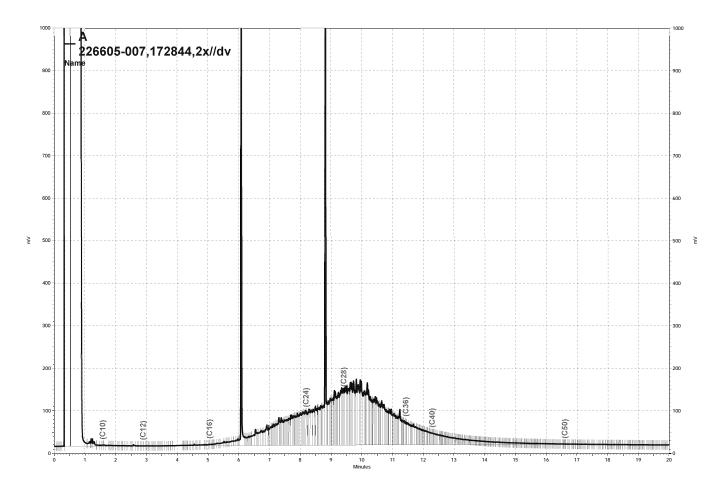
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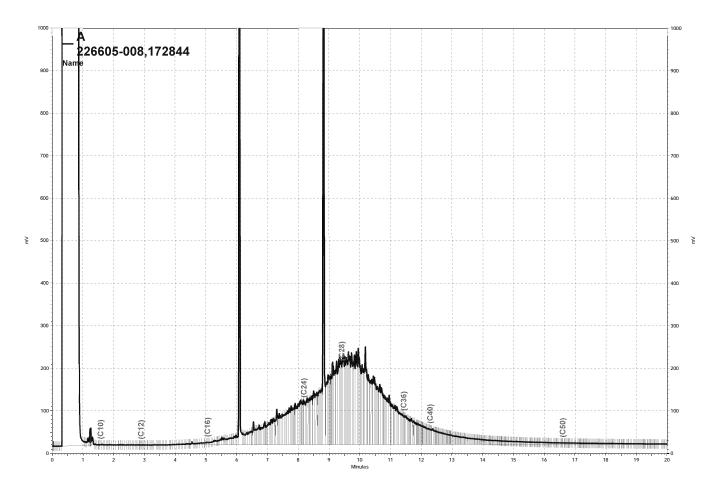
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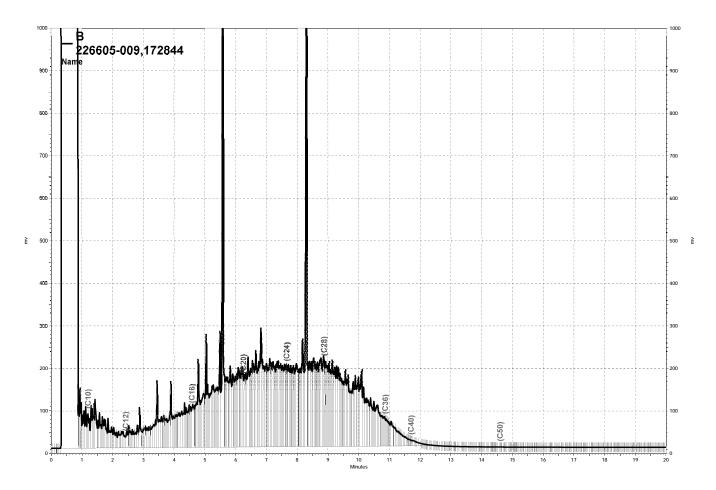
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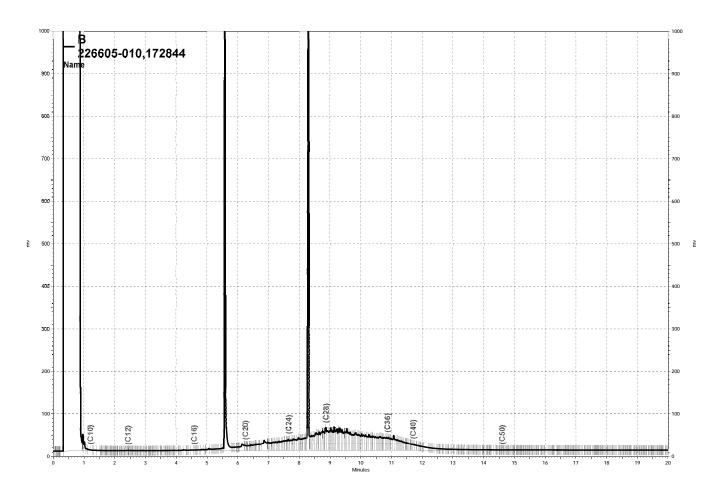
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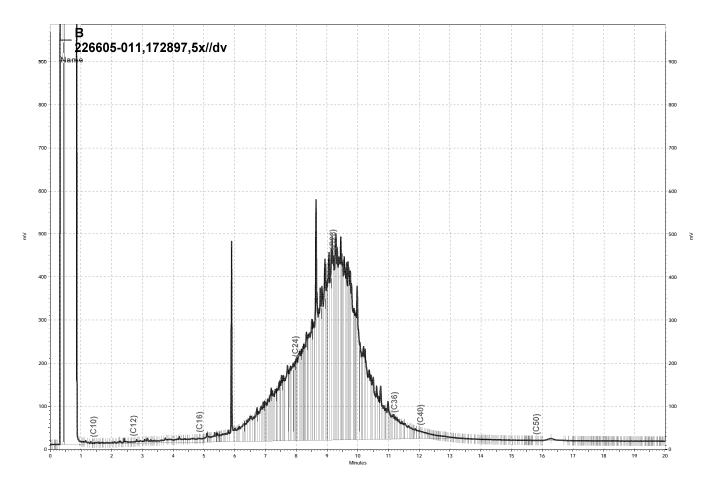
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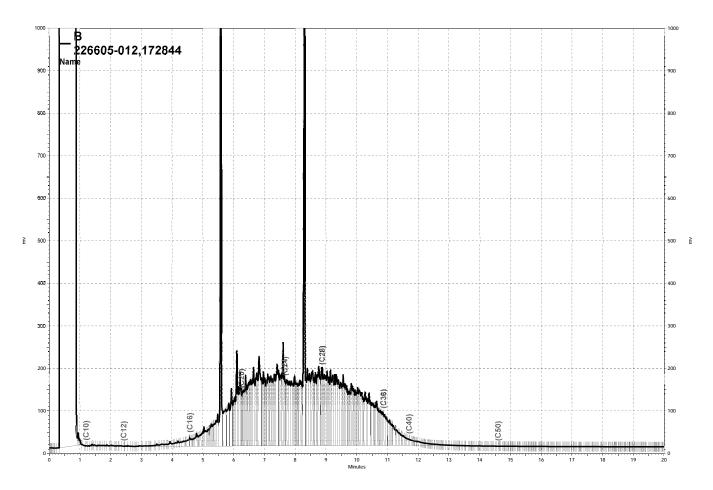
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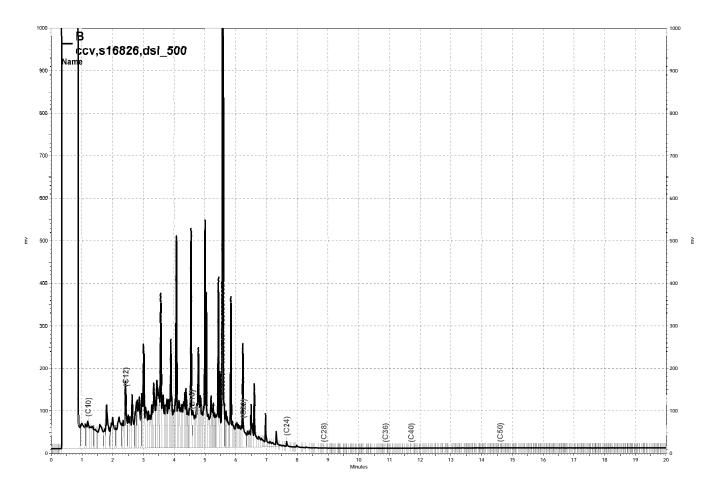
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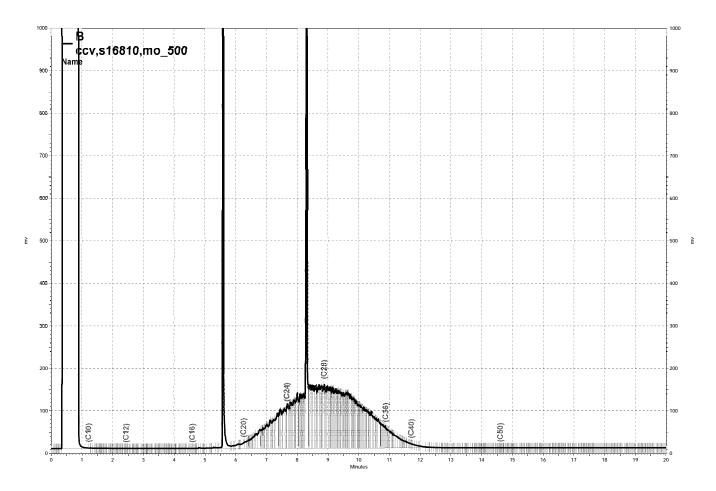
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	Purgeable O	ganics by GC/MS	
Lab #:	226605	Location: 64th & (Christie/Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5035	5
Project#:	241.082.02.001	Analysis: EPA 8260)B
Field ID:	SB-7-2.5	Diln Fac: (0.7704
Lab ID:	226605-007	Batch#: 1	172812
Matrix:	Soil	Sampled: (03/14/11
Units:	ug/Kg	Received: (03/14/11
Basis:	as received	Analyzed: (03/16/11

Analyte	Result	RL	
Freon 12	ND	7.7	
Chloromethane	ND	7.7	
Vinyl Chloride	ND	7.7	
Bromomethane	ND	7.7	
Chloroethane	ND	7.7	
Trichlorofluoromethane	ND	3.9	
Acetone	ND	15	
Freon 113	ND	3.9	
1,1-Dichloroethene	ND	3.9	
Methylene Chloride	ND	15	
Carbon Disulfide	ND	3.9	
MTBE	ND	3.9	
trans-1,2-Dichloroethene	ND	3.9	
Vinyl Acetate	ND	39	
1,1-Dichloroethane	ND	3.9	
2-Butanone	ND	7.7	
cis-1,2-Dichloroethene	ND	3.9	
2,2-Dichloropropane	ND	3.9	
Chloroform	ND	3.9	
Bromochloromethane	ND	3.9	
1,1,1-Trichloroethane	ND	3.9	
1,1-Dichloropropene	ND	3.9	
Carbon Tetrachloride	ND	3.9	
1,2-Dichloroethane	ND	3.9	
Benzene	ND	3.9	
Trichloroethene	ND	3.9	
1,2-Dichloropropane	ND	3.9	
Bromodichloromethane	ND	3.9	
Dibromomethane	ND	3.9	
4-Methyl-2-Pentanone	ND	7.7	
cis-1,3-Dichloropropene	ND	3.9	
Toluene	ND	3.9	
trans-1,3-Dichloropropene	ND	3.9	
1,1,2-Trichloroethane	ND	3.9	
2-Hexanone	ND	7.7	
1,3-Dichloropropane	ND	3.9	
Tetrachloroethene	ND	3.9	

ND= Not Detected RL= Reporting Limit

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3.0



	Purgeable On	ganics by GC/MS	
Lab #:	226605	Location: 64th & Christi	e/Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5035	
Project#:	241.082.02.001	Analysis: EPA 8260B	
Field ID:	SB-7-2.5	Diln Fac: 0.7704	
Lab ID:	226605-007	Batch#: 172812	
Matrix:	Soil	Sampled: 03/14/1	.1
Units:	ug/Kg	Received: 03/14/1	.1
Basis:	as received	Analyzed: 03/16/1	.1

Analyte	Result	RL	
Dibromochloromethane	ND	3.9	
1,2-Dibromoethane	ND	3.9	
Chlorobenzene	ND	3.9	
1,1,1,2-Tetrachloroethane	ND	3.9	
Ethylbenzene	ND	3.9	
m,p-Xylenes	ND	3.9	
o-Xylene	ND	3.9	
Styrene	ND	3.9	
Bromoform	ND	3.9	
Isopropylbenzene	ND	3.9	
1,1,2,2-Tetrachloroethane	ND	3.9	
1,2,3-Trichloropropane	ND	3.9	
Propylbenzene	ND	3.9	
Bromobenzene	ND	3.9	
1,3,5-Trimethylbenzene	ND	3.9	
2-Chlorotoluene	ND	3.9	
4-Chlorotoluene	ND	3.9	
tert-Butylbenzene	ND	3.9	
1,2,4-Trimethylbenzene	ND	3.9	
sec-Butylbenzene	ND	3.9	
para-Isopropyl Toluene	ND	3.9	
1,3-Dichlorobenzene	ND	3.9	
1,4-Dichlorobenzene	ND	3.9	
n-Butylbenzene	ND	3.9	
1,2-Dichlorobenzene	ND	3.9	
1,2-Dibromo-3-Chloropropane	ND	3.9	
1,2,4-Trichlorobenzene	ND	3.9	
Hexachlorobutadiene	ND	3.9	
Naphthalene	ND	3.9	
1,2,3-Trichlorobenzene	ND	3.9	

Surrogate	%REC	Limits	
Dibromofluoromethane	101	79-120	
1,2-Dichloroethane-d4	97	72-148	
Toluene-d8	101	80-120	
Bromofluorobenzene	108	78-130	

ND= Not Detected

RL= Reporting Limit

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	Purgeable O	rganics by GC/MS	
Lab #:	226605	Location: 64th & Christie/Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 5035	
Project#:	241.082.02.001	Analysis: EPA 8260B	
Type:	BLANK	Diln Fac: 1.000	
Lab ID:	QC583966	Batch#: 172812	
Matrix:	Soil	Analyzed: 03/16/11	
Units:	ug/Kg		

Analyte	Result	RL	
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.0	
Acetone	ND	20	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	

ND= Not Detected

RL= Reporting Limit



	Purgeable Org	anics by	GC/MS
Lab #:	226605	Location:	64th & Christie/Emeryville, CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	241.082.02.001	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC583966	Batch#:	172812
Matrix:	Soil	Analyzed:	03/16/11
Units:	ug/Kg		

Analyte	Result	RL	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Styrene	ND	5.0	
Bromoform	ND	5.0	
Isopropylbenzene	ND	5.0	
1,1,2,2-Tetrachloroethane	ND	5.0	
1,2,3-Trichloropropane	ND	5.0	
Propylbenzene	ND	5.0	
Bromobenzene	ND	5.0	
1,3,5-Trimethylbenzene	ND	5.0	
2-Chlorotoluene	ND	5.0	
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	97	79-120	
1,2-Dichloroethane-d4	95	72-148	
Toluene-d8	98	80-120	
Bromofluorobenzene	101	78-130	

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS						
Lab #:	226605	Location: 64th	& Christie/Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA	5035			
Project#:	241.082.02.001	Analysis: EPA	8260B			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC583967	Batch#:	172812			
Matrix:	Soil	Analyzed:	03/16/11			
Units:	ug/Kg					

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	16.95	85	68-134
Benzene	20.00	21.09	105	80-128
Trichloroethene	20.00	19.00	95	75-130
Toluene	20.00	18.67	93	80-130
Chlorobenzene	20.00	19.41	97	80-126

Surrogate	%REC	Limits	
Dibromofluoromethane	96	79-120	
1,2-Dichloroethane-d4	98	72-148	
Toluene-d8	98	80-120	
Bromofluorobenzene	91	78-130	

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Purgeable Organics by GC/MS						
Lab #:	226605	Location: 64th & Christie/Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5035				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Matrix:	Soil	Batch#: 172812				
Units:	ug/Kg	Analyzed: 03/16/11				
Diln Fac:	1.000					

Type: BS Lab ID: QC583968

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	16.89	84	68-134
Benzene	20.00	21.19	106	80-128
Trichloroethene	20.00	19.27	96	75-130
Toluene	20.00	19.41	97	80-130
Chlorobenzene	20.00	19.51	98	80-126

Surrogate	%REC	Limits		
Dibromofluoromethane	98	79-120		
1,2-Dichloroethane-d4	96	72-148		
Toluene-d8	98	80-120		
Bromofluorobenzene	92	78-130		

Type: BSD Lab ID: QC583969

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	17.22	86	68-134	2	27
Benzene	20.00	21.12	106	80-128	0	20
Trichloroethene	20.00	19.08	95	75-130	1	20
Toluene	20.00	19.32	97	80-130	0	20
Chlorobenzene	20.00	19.51	98	80-126	0	20

Surrogate	%REC	Limits	
Dibromofluoromethane	95	79-120	
1,2-Dichloroethane-d4	92	72-148	
Toluene-d8	98	80-120	
Bromofluorobenzene	89	78-130	



	Semivolatile Organics by GC/MS						
Lab #:	226605	Location: 64th & Christie/Emeryville, CA					
Client:	PES Environmental, Inc.	Prep: EPA 3550B					
Project#:	241.082.02.001	Analysis: EPA 8270C					
Field ID:	SB-7-2.5	Batch#: 172878					
Lab ID:	226605-007	Sampled: 03/14/11					
Matrix:	Soil	Received: 03/14/11					
Units:	ug/Kg	Prepared: 03/17/11					
Basis:	as received	Analyzed: 03/17/11					
Diln Fac:	1.000						

Analyte	Result	RL	
N-Nitrosodimethylamine	ND	330	
Phenol	ND	330	
bis(2-Chloroethyl)ether	ND	330	
2-Chlorophenol	ND	330	
1,3-Dichlorobenzene	ND	330	
1,4-Dichlorobenzene	ND	330	
Benzyl alcohol	ND	330	
1,2-Dichlorobenzene	ND	330	
2-Methylphenol	ND	330	
bis(2-Chloroisopropyl) ether	ND	330	
4-Methylphenol	ND	330	
N-Nitroso-di-n-propylamine	ND	330	
Hexachloroethane	ND	330	
Nitrobenzene	ND	330	
Isophorone	ND	330	
2-Nitrophenol	ND	670	
2,4-Dimethylphenol	ND	330	
Benzoic acid	ND	1,700	
bis(2-Chloroethoxy)methane	ND	330	
2,4-Dichlorophenol	ND	330	
1,2,4-Trichlorobenzene	ND	330	
Naphthalene	ND	67	
4-Chloroaniline	ND	330	
Hexachlorobutadiene	ND	330	
4-Chloro-3-methylphenol	ND	330	
2-Methylnaphthalene	ND	67	
Hexachlorocyclopentadiene	ND	670	
2,4,6-Trichlorophenol	ND	330	
2,4,5-Trichlorophenol	ND	330	
2-Chloronaphthalene	ND	330	
2-Nitroaniline	ND	670	
Dimethylphthalate	ND	330	
Acenaphthylene	ND	67	
2,6-Dinitrotoluene	ND	330	
3-Nitroaniline	ND	670	
Acenaphthene	ND	67	
2,4-Dinitrophenol	ND	670	
4-Nitrophenol	ND	670	
Dibenzofuran	ND	330	
2,4-Dinitrotoluene	ND	330	
Diethylphthalate	ND	330	
Fluorene	ND	67	
4-Chlorophenyl-phenylether	ND	330	
4-Nitroaniline	ND	670	
4,6-Dinitro-2-methylphenol	ND ND	670	
N-Nitrosodiphenylamine	ND ND	330	
Azobenzene	ND ND	330	
4-Bromophenyl-phenylether	ND ND	330	
Hexachlorobenzene	ND	330	
Pentachlorophenol	ND	670	
Phenanthrene	ND ND	67	
Anthracene	ND	67	
	ND	330	
Di-n-butylphthalate	מא	330	

ND= Not Detected RL= Reporting Limit



Semivolatile Organics by GC/MS						
Lab #:	226605	Location: 64th & Christie/Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 3550B				
Project#:	241.082.02.001	Analysis: EPA 8270C				
Field ID:	SB-7-2.5	Batch#: 172878				
Lab ID:	226605-007	Sampled: 03/14/11				
Matrix:	Soil	Received: 03/14/11				
Units:	uq/Kq	Prepared: 03/17/11				
Basis:	as received	Analyzed: 03/17/11				
Diln Fac:	1.000					

Analyte	Result	RL	
Fluoranthene	ND	67	
Pyrene	ND	67	
Butylbenzylphthalate	ND	330	
3,3'-Dichlorobenzidine	ND	670	
Benzo(a)anthracene	ND	67	
Chrysene	ND	67	
bis(2-Ethylhexyl)phthalate	ND	330	
Di-n-octylphthalate	ND	330	
Benzo(b)fluoranthene	ND	67	
Benzo(k)fluoranthene	ND	67	
Benzo(a)pyrene	ND	67	
Indeno(1,2,3-cd)pyrene	ND	67	
Dibenz(a,h)anthracene	ND	67	
Benzo(g,h,i)perylene	ND	67	

Surrogate	%REC	Limits
2-Fluorophenol	71	35-120
Phenol-d5	75	33-120
2,4,6-Tribromophenol	77	30-120
Nitrobenzene-d5	63	43-120
2-Fluorobiphenyl	74	47-120
Terphenyl-d14	70	40-120

ND= Not Detected RL= Reporting Limit Page 2 of 2



	Semivolatile	Organics by GC/MS
Lab #:	226605	Location: 64th & Christie/Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 3550B
Project#:	241.082.02.001	Analysis: EPA 8270C
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC584221	Batch#: 172878
Matrix:	Soil	Prepared: 03/17/11
Units:	ug/Kg	Analyzed: 03/17/11

Analyte	Result	RL	
N-Nitrosodimethylamine	ND	330	
Phenol	ND	330	
bis(2-Chloroethyl)ether	ND	330	
2-Chlorophenol	ND	330	
1,3-Dichlorobenzene	ND	330	
1,4-Dichlorobenzene	ND	330	
Benzyl alcohol	ND	330	
1,2-Dichlorobenzene	ND	330	
2-Methylphenol	ND	330	
bis(2-Chloroisopropyl) ether	ND	330	
4-Methylphenol	ND	330	
N-Nitroso-di-n-propylamine	ND	330	
Hexachloroethane	ND	330	
Nitrobenzene	ND	330	
Isophorone	ND	330	
2-Nitrophenol	ND	660	
2,4-Dimethylphenol	ND	330	
Benzoic acid	ND	1,700	
bis(2-Chloroethoxy)methane	ND	330	
2,4-Dichlorophenol	ND	330	
1,2,4-Trichlorobenzene	ND	330	
Naphthalene	ND	66	
4-Chloroaniline	ND	330	
Hexachlorobutadiene	ND	330	
4-Chloro-3-methylphenol	ND	330	
2-Methylnaphthalene	ND	66	
Hexachlorocyclopentadiene	ND	660	
2,4,6-Trichlorophenol	ND	330	
2,4,5-Trichlorophenol	ND	330	
2-Chloronaphthalene	ND	330	
2-Nitroaniline	ND	660	
Dimethylphthalate	ND	330	
Acenaphthylene	ND	66	
2,6-Dinitrotoluene	ND	330	
3-Nitroaniline	ND	660	
Acenaphthene	ND	66	
2,4-Dinitrophenol	ND	660	
4-Nitrophenol	ND	660	
Dibenzofuran	ND	330	
2,4-Dinitrotoluene	ND	330	
Diethylphthalate	ND	330	
Fluorene	ND	66	
4-Chlorophenyl-phenylether	ND	330	
4-Nitroaniline	ND	660	
4,6-Dinitro-2-methylphenol	ND	660	
N-Nitrosodiphenylamine	ND	330	
Azobenzene	ND	330	
4-Bromophenyl-phenylether	ND	330	
Hexachlorobenzene	ND	330	
Pentachlorophenol	ND	660	
Phenanthrene	ND	66	
Anthracene	ND	66	
Di-n-butylphthalate	ND	330	
Fluoranthene	ND	66	
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ND= Not Detected RL= Reporting Limit Page 1 of 2



Semivolatile Organics by GC/MS			
Lab #:	226605		Christie/Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 35	
Project#:	241.082.02.001	Analysis: EPA 82	
Type:	BLANK	Diln Fac:	1.000
Type: Lab ID:	QC584221	Batch#:	172878
Matrix:	Soil	Prepared:	03/17/11
Units:	ug/Kg	Analyzed:	03/17/11

Analyte	Result	RL	
Pyrene	ND	66	
Butylbenzylphthalate	ND	330	
3,3'-Dichlorobenzidine	ND	660	
Benzo(a)anthracene	ND	66	
Chrysene	ND	66	
bis(2-Ethylhexyl)phthalate	ND	330	
Di-n-octylphthalate	ND	330	
Benzo(b)fluoranthene	ND	66	
Benzo(k)fluoranthene	ND	66	
Benzo(a)pyrene	ND	66	
Indeno(1,2,3-cd)pyrene	ND	66	
Dibenz(a,h)anthracene	ND	66	
Benzo(g,h,i)perylene	ND	66	

Surrogate	%REC	Limits
2-Fluorophenol	93	35-120
Phenol-d5	94	33-120
2,4,6-Tribromophenol	69	30-120
Nitrobenzene-d5	70	43-120
2-Fluorobiphenyl	83	47-120
Terphenyl-d14	78	40-120

ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS				
Lab #:	226605	Location: 64th & Christie/Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B		
Project#:	241.082.02.001	Analysis: EPA 8270C		
Type:	LCS	Diln Fac: 1.000		
Lab ID:	QC584222	Batch#: 172878		
Matrix:	Soil	Prepared: 03/17/11		
Units:	ug/Kg	Analyzed: 03/17/11		

Analyte	Spiked	Result	%REC	Limits
Phenol	2,665	2,184	82	39-120
2-Chlorophenol	2,665	2,258	85	44-120
1,4-Dichlorobenzene	2,665	2,091	78	46-120
N-Nitroso-di-n-propylamine	2,665	2,209	83	33-120
1,2,4-Trichlorobenzene	2,665	2,200	83	48-120
4-Chloro-3-methylphenol	2,665	2,099	79	47-120
Acenaphthene	999.3	812.8	81	47-120
4-Nitrophenol	2,665	1,947	73	35-120
2,4-Dinitrotoluene	2,665	2,152	81	46-120
Pentachlorophenol	2,665	2,104	79	25-120
Pyrene	999.3	791.9	79	45-120

Surrogate	%REC	Limits
2-Fluorophenol	84	35-120
Phenol-d5	85	33-120
2,4,6-Tribromophenol	86	30-120
Nitrobenzene-d5	68	43-120
2-Fluorobiphenyl	72	47-120
Terphenyl-d14	68	40-120



Semivolatile Organics by GC/MS			
Lab #:	226605	Location: 64th & Christie/Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3550B	
Project#:	241.082.02.001	Analysis: EPA 8270C	
Field ID:	ZZZZZZZZZZ	Batch#: 172878	
MSS Lab ID:	226568-028	Sampled: 03/09/11	
Matrix:	Soil	Received: 03/11/11	
Units:	ug/Kg	Prepared: 03/17/11	
Basis:	as received	Analyzed: 03/17/11	
Units:	ug/Kg	Prepared: 03/17/11	

Type: MS Lab ID: QC584223

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<14.82	2,649	2,087	79	41-120
2-Chlorophenol	<13.77	2,649	2,137	81	44-120
1,4-Dichlorobenzene	<7.231	2,649	1,923	73	46-120
N-Nitroso-di-n-propylamine	<15.00	2,649	2,123	80	36-120
1,2,4-Trichlorobenzene	<8.374	2,649	2,035	77	48-120
4-Chloro-3-methylphenol	<8.558	2,649	2,007	76	47-120
Acenaphthene	<6.608	993.4	779.0	78	45-120
4-Nitrophenol	<6.996	2,649	1,951	74	35-120
2,4-Dinitrotoluene	<8.230	2,649	2,130	80	44-120
Pentachlorophenol	<101.3	2,649	1,659	63	19-120
Pyrene	<7.224	993.4	777.8	78	41-120

Surrogate	%REC	Limits
2-Fluorophenol	76	35-120
Phenol-d5	80	33-120
2,4,6-Tribromophenol	77	30-120
Nitrobenzene-d5	63	43-120
2-Fluorobiphenyl	68	47-120
Terphenyl-d14	67	40-120

Type: MSD Lab ID: QC584224

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	2,642	2,170	82	41-120	4	45
2-Chlorophenol	2,642	1,934	73	44-120	10	44
1,4-Dichlorobenzene	2,642	1,632	62	46-120	16	41
N-Nitroso-di-n-propylamine	2,642	2,418	92	36-120	13	50
1,2,4-Trichlorobenzene	2,642	1,566	59	48-120	26	39
4-Chloro-3-methylphenol	2,642	1,796	68	47-120	11	40
Acenaphthene	990.8	682.8	69	45-120	13	39
4-Nitrophenol	2,642	1,685	64	35-120	14	57
2,4-Dinitrotoluene	2,642	1,847	70	44-120	14	42
Pentachlorophenol	2,642	1,543	58	19-120	7	66
Pyrene	990.8	668.6	67	41-120	15	52

Surrogate	%REC	Limits
2-Fluorophenol	81	35-120
Phenol-d5	87	33-120
2,4,6-Tribromophenol	70	30-120
Nitrobenzene-d5	55	43-120
2-Fluorobiphenyl	61	47-120
Terphenyl-d14	58	40-120



California Title 22 Metals					
Lab #:	226605	Project#: 241.08	32.02.001		
Client:	PES Environmental, Inc.	Location: 64th &	Christie/Emeryville, CA		
Field ID:	SB-9-2.5	Basis:	as received		
Lab ID:	226605-001	Diln Fac:	1.000		
Matrix:	Soil	Sampled:	03/14/11		
Units:	mg/Kg	Received:	03/14/11		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	2.2	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	8.8	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	150	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.34	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	1.5	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	36	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	8.8	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	200	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	95	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.32	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	0.31	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	42	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Vanadium	36	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	250	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

ND= Not Detected RL= Reporting Limit



California Title 22 Metals					
Lab #:	226605	Project#: 241.082.02.001			
Client:	PES Environmental, Inc.	Location: 64th & Christie/Emeryville, CA			
Field ID:	SB-9-6.5	Basis: as received			
Lab ID:	226605-002	Diln Fac: 1.000			
Matrix:	Soil	Sampled: 03/14/11			
Units:	mg/Kg	Received: 03/14/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	1.1	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	3.2	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	150	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.52	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	39	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	8.3	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	24	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	11	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.23	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	36	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Vanadium	43	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	43	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit



California Title 22 Metals					
Lab #:	226605	Project#: 241.08	32.02.001		
Client:	PES Environmental, Inc.	Location: 64th &	Christie/Emeryville, CA		
Field ID:	SB-9-12.5	Basis:	as received		
Lab ID:	226605-003	Diln Fac:	1.000		
Matrix:	Soil	Sampled:	03/14/11		
Units:	mg/Kg	Received:	03/14/11		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	1.4	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	3.2	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	190	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.16	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	0.35	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	8.5	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	5.2	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	12	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	36	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.12	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	8.2	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/17/11	EPA 3050B	EPA 6010B
Vanadium	25	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	270	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

ND= Not Detected RL= Reporting Limit

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20.0



California Title 22 Metals						
Lab #:	226605	Project#: 241.082.02.001				
Client:	PES Environmental, Inc.	Location: 64th & Christie/Emeryville, CA				
Field ID:	SB-12-2.5	Basis: as received				
Lab ID:	226605-004	Diln Fac: 1.000				
Matrix:	Soil	Sampled: 03/14/11				
Units:	mg/Kg	Received: 03/14/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.6	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	20	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	190	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.30	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	0.95	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	36	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	8.1	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	170	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	180	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.69	0.021	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	0.92	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	37	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Vanadium	32	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	260	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226605	Project#: 241.082.02.001				
Client:	PES Environmental, Inc.	Location: 64th & Christie/Emeryville, CA				
Field ID:	SB-12-7.5	Basis: as received				
Lab ID:	226605-005	Diln Fac: 1.000				
Matrix:	Soil	Sampled: 03/14/11				
Units:	mg/Kg	Received: 03/14/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	2.9	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	5.4	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	180	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.38	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	0.82	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	35	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	8.7	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	160	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	160	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.26	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	0.56	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	42	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	0.42	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Vanadium	33	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	380	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226605	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie/Emeryville, CA			
Field ID:	SB-12-12.5	Basis:	as received			
Lab ID:	226605-006	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/14/11			
Units:	mg/Kg	Received:	03/14/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	1.1	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	5.1	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	210	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	0.28	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	47	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	9.3	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	27	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	130	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.17	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	42	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Vanadium	36	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	140	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226605	Project#: 241.08	2.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie/Emeryville, CA			
Field ID:	SB-7-2.5	Basis:	as received			
Lab ID:	226605-007	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/14/11			
Units:	mg/Kg	Received:	03/14/11			

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	2.1	0.50	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Arsenic	5.5	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Barium	440	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Cadmium	0.61	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Chromium	41	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Cobalt	8.4	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Copper	72	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Lead	210	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Mercury	0.090	0.020	172921 03/18/11	03/18/11 METHOD	EPA 7471A
Molybdenum	ND	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Nickel	62	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Vanadium	33	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Zinc	290	1.0	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226605	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie/Emeryville, CA			
Field ID:	SB-7-5.0	Basis:	as received			
Lab ID:	226605-008	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/14/11			
Units:	mg/Kg	Received:	03/14/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	3.6	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	3.6	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	150	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.32	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	0.51	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	18	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	7.9	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	38	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	83	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.17	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	19	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Vanadium	36	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	150	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226605	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie/Emeryville, CA			
Field ID:	SB-7-12.0	Basis:	as received			
Lab ID:	226605-009	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/14/11			
Units:	mg/Kg	Received:	03/14/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.94	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	8.9	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	69	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.38	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	0.62	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	62	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	9.6	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	35	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	48	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.83	0.021	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	54	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	0.32	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Vanadium	45	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	110	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

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California Title 22 Metals			
Lab #:	226605	Project#: 241.08	32.02.001
Client:	PES Environmental, Inc.	Location: 64th &	Christie/Emeryville, CA
Field ID:	SB-8-2.5	Basis:	as received
Lab ID:	226605-010	Diln Fac:	1.000
Matrix:	Soil	Sampled:	03/14/11
Units:	mg/Kg	Received:	03/14/11

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	ND	0.50	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Arsenic	4.9	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Barium	31	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Beryllium	0.12	0.10	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Chromium	32	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Cobalt	9.2	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Copper	8.1	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Lead	3.4	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Mercury	0.066	0.021	172921 03/18/11	03/18/11 METHOD	EPA 7471A
Molybdenum	ND	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Nickel	42	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Vanadium	35	0.25	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B
Zinc	37	1.0	172807 03/15/11	03/16/11 EPA 3050B	EPA 6010B

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California Title 22 Metals			
Lab #:	226605	Project#: 241.08	2.02.001
Client:	PES Environmental, Inc.	Location: 64th &	Christie/Emeryville, CA
Field ID:	SB-8-6.5	Basis:	as received
Lab ID:	226605-011	Diln Fac:	1.000
Matrix:	Soil	Sampled:	03/14/11
Units:	mg/Kg	Received:	03/14/11

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.89	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	4.3	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	170	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.40	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	0.43	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	40	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	10	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	25	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	80	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.15	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	68	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/17/11	EPA 3050B	EPA 6010B
Vanadium	39	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	140	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

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California Title 22 Metals			
Lab #:	226605	Project#: 241.08	2.02.001
Client:	PES Environmental, Inc.	Location: 64th &	Christie/Emeryville, CA
Field ID:	SB-8-12.5	Basis:	as received
Lab ID:	226605-012	Diln Fac:	1.000
Matrix:	Soil	Sampled:	03/14/11
Units:	mg/Kg	Received:	03/14/11

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Arsenic	1.8	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Barium	88	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Beryllium	0.27	0.10	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Chromium	8.5	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Cobalt	2.8	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Copper	5.9	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Lead	11	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Mercury	0.18	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Nickel	7.9	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Vanadium	15	0.25	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B
Zinc	25	1.0	172807	03/15/11	03/16/11	EPA 3050B	EPA 6010B

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California Title 22 Metals			
Lab #:	226605	Location: 64th & Christie/Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3050B	
Project#:	241.082.02.001	Analysis: EPA 6010B	
Type:	BLANK	Diln Fac: 1.000	
Lab ID:	QC583944	Batch#: 172807	
Matrix:	Soil	Prepared: 03/15/11	
Units:	mg/Kg	Analyzed: 03/16/11	

Analyte	Result	RL	
Antimony	ND	0.50	
Arsenic	ND	0.25	
Barium	ND	0.25	
Beryllium	ND	0.10	
Cadmium	ND	0.25	
Chromium	ND	0.25	
Cobalt	ND	0.25	
Copper	ND	0.26	
Lead	ND	0.25	
Molybdenum	ND	0.25	
Nickel	ND	0.25	
Selenium	ND	0.50	
Silver	ND	0.25	
Thallium	ND	0.50	
Vanadium	ND	0.25	
Zinc	ND	1.0	

ND= Not Detected RL= Reporting Limit

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California Title 22 Metals			
Lab #:	226605	Location: 64th & Christie/Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3050B	
Project#:	241.082.02.001	Analysis: EPA 6010B	
Matrix:	Soil	Batch#: 172807	
Units:	mg/Kg	Prepared: 03/15/11	
Diln Fac:	1.000	Analyzed: 03/16/11	

Type: BS Lab ID: QC583945

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	101.5	102	80-120
Arsenic	50.00	52.17	104	80-120
Barium	100.0	98.53	99	80-120
Beryllium	2.500	2.669	107	80-120
Cadmium	10.00	10.20	102	80-120
Chromium	100.0	99.20	99	80-120
Cobalt	25.00	24.57	98	80-120
Copper	12.50	12.46	100	78-120
Lead	100.0	98.75	99	80-120
Molybdenum	20.00	20.35	102	80-120
Nickel	25.00	24.59	98	80-120
Selenium	50.00	50.06	100	80-120
Silver	10.00	9.780	98	80-120
Thallium	50.00	50.14	100	80-120
Vanadium	25.00	25.03	100	80-120
Zinc	25.00	25.32	101	80-120

Type: BSD Lab ID: QC583946

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	100.0	100	80-120	2	20
Arsenic	50.00	50.57	101	80-120	3	20
Barium	100.0	96.77	97	80-120	2	20
Beryllium	2.500	2.593	104	80-120	3	20
Cadmium	10.00	9.963	100	80-120	2	20
Chromium	100.0	96.55	97	80-120	3	20
Cobalt	25.00	23.94	96	80-120	3	20
Copper	12.50	12.27	98	78-120	2	20
Lead	100.0	96.28	96	80-120	3	20
Molybdenum	20.00	19.99	100	80-120	2	20
Nickel	25.00	23.90	96	80-120	3	20
Selenium	50.00	48.50	97	80-120	3	20
Silver	10.00	9.513	95	80-120	3	20
Thallium	50.00	48.87	98	80-120	3	20
Vanadium	25.00	24.43	98	80-120	2	20
Zinc	25.00	24.67	99	80-120	3	20



	California	Title 22 Metals
Lab #:	226605	Location: 64th & Christie/Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 3050B
Project#:	241.082.02.001	Analysis: EPA 6010B
Field ID:	ZZZZZZZZZ	Batch#: 172807
MSS Lab ID:	226604-021	Sampled: 03/14/11
Matrix:	Soil	Received: 03/15/11
Units:	mg/Kg	Prepared: 03/15/11
Basis:	as received	Analyzed: 03/16/11
Diln Fac:	1.000	

Type: MS Lab ID: QC583947

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<0.1419	89.29	30.35	34	7-120
Arsenic	<0.07410	44.64	46.49	104	66-122
Barium	16.85	89.29	117.7	113	51-135
Beryllium	0.08762	2.232	2.371	102	73-120
Cadmium	<0.01427	8.929	8.037	90	64-120
Chromium	236.6	89.29	408.9	193 *	57-122
Cobalt	35.21	22.32	60.89	115	53-122
Copper	15.79	11.16	34.93	172 *	33-157
Lead	2.248	89.29	79.35	86	52-123
Molybdenum	0.1586	17.86	16.86	94	66-120
Nickel	752.9	22.32	731.9 >LR	-94 NM	42-137
Selenium	2.102	44.64	42.05	89	64-120
Silver	<0.06674	8.929	9.398	105	65-120
Thallium	1.671	44.64	41.27	89	55-120
Vanadium	30.31	22.32	63.90	150 *	49-139
Zinc	25.84	22.32	52.87	121	32-155

Type: MSD Lab ID: QC583948

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	33.74	34	7-120	1	44
Arsenic	50.00	51.15	102	66-122	2	35
Barium	100.0	122.3	105	51-135	6	42
Beryllium	2.500	2.584	100	73-120	2	22
Cadmium	10.00	8.675	87	64-120	4	36
Chromium	100.0	304.7	68	57-122	32	34
Cobalt	25.00	62.51	109	53-122	2	32
Copper	12.50	43.51	222 *	33-157	17	41
Lead	100.0	86.38	84	52-123	3	41
Molybdenum	20.00	17.92	89	66-120	5	20
Nickel	25.00	635.4 >LR	-470 NM	42-137	NC	36
Selenium	50.00	50.21	96	64-120	7	28
Silver	10.00	10.12	101	65-120	4	27
Thallium	50.00	44.93	87	55-120	2	27
Vanadium	25.00	78.24	192 *	49-139	15	32
Zinc	25.00	60.18	137	32-155	8	45

Page 1 of 1 33.0

^{*=} Value outside of QC limits; see narrative NC= Not Calculated NM= Not Meaningful: Sample concentration > 4X spike concentration >LR= Response exceeds instrument's linear range RPD= Relative Percent Difference



California Title 22 Metals											
Lab #:	226605	Location: 64th & Christie/Emeryville, CA									
Client:	PES Environmental, Inc.	Prep: METHOD									
Project#:	241.082.02.001	Analysis: EPA 7471A									
Analyte:	Mercury	Diln Fac: 1.000									
Type:	BLANK	Batch#: 172921									
Lab ID:	QC584393	Prepared: 03/18/11									
Matrix:	Soil	Analyzed: 03/18/11									
Units:	mg/Kg										

Result	RL	
ND	0.020	

ND= Not Detected RL= Reporting Limit

Page 1 of 1



California Title 22 Metals											
Lab #:	226605	Location: 64th & Christie/Emeryville, CA									
Client:	PES Environmental, Inc.	Prep: METHOD									
Project#:	241.082.02.001	Analysis: EPA 7471A									
Analyte:	Mercury	Batch#: 172921									
Matrix:	Soil	Prepared: 03/18/11									
Units:	mg/Kg	Analyzed: 03/18/11									
Diln Fac:	1.000										

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584394	0.2500	0.2610	104	80-120		
BSD	QC584395	0.2500	0.2640	106	80-120	1	20



California Title 22 Metals											
Lab #:	226605	Location: 64th & Christie/Emeryville, CA									
Client:	PES Environmental, Inc.	Prep: METHOD									
Project#:	241.082.02.001	Analysis: EPA 7471A									
Analyte:	Mercury	Diln Fac: 1.000									
Field ID:	SB-9-2.5	Batch#: 172921									
MSS Lab ID:	226605-001	Sampled: 03/14/11									
Matrix:	Soil	Received: 03/14/11									
Units:	mg/Kg	Prepared: 03/18/11									
Basis:	as received	Analyzed: 03/18/11									

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584396	0.3191	0.2315	0.4435	54 *	72-124		
MSD	QC584397		0.2404	0.5260	86	72-124	15	31

^{*=} Value outside of QC limits; see narrative
RPD= Relative Percent Difference
Page 1 of 1





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 226637 ANALYTICAL REPORT

PES Environmental, Inc. Project : 241.082.02.001

1682 Novato Boulevard Location: 64th & Christie Emeryville, CA

Novato, CA 94947 Level : II

<u>Sample ID</u>	<u>Lab ID</u>
SB-41-2.5	226637-001
SB-41-6.5	226637-002
SB-41-12.5	226637-003
SB-15-2.5	226637-004
SB-15-4.5	226637-005
SB-15-12.5	226637-006
SB-40-2.5	226637-007
SB-40-7.5	226637-008
SB-40-12.5	226637-009
SB-14-2.5	226637-010
SB-37-2.5	226637-011
SB-37-7.5	226637-012
SB-37-12.5	226637-013
SB-14-7.5	226637-014
SB-36-2.5	226637-015
SB-36-6.5	226637-016
SB-36-12.5	226637-017
SB-10-2.5	226637-018
SB-10-5.5	226637-019
SB-10-12.5	226637-020
SB-13-2.5	226637-021
SB-39-2.5	226637-022
SB-39-5.0	226637-023
SB-39-12.5	226637-024
SB-38-2.5	226637-025
SB-38-7.5	226637-026
SB-38-12.5	226637-027

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

	Deinee 71. Tetralt	
Signature:		

Project Manager Date: 03/28/2011

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 226637

Client: PES Environmental, Inc.

Project: 241.082.02.001

Location: 64th & Christie Emeryville, CA

Request Date: 03/15/11 Samples Received: 03/15/11

This data package contains sample and QC results for twenty seven soil samples, requested for the above referenced project on 03/15/11. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

High surrogate recovery was observed for bromofluorobenzene (FID) in SB-36-12.5 (lab # 226637-017). No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

Matrix spikes QC584512,QC584513 (batch 172955) were not reported because the parent sample was reextracted in another batch. High recovery was observed for diesel C10-C24 in the MS of SB-36-6.5 (lab # 226637-016); the LCS was within limits, and the associated RPD was within limits. Low surrogate recovery was observed for o-terphenyl in SB-37-2.5 (lab # 226637-011), was confirmed by re-analysis, and no sample remained for a re-extraction. The data shows heavy hydrocarbons which likely could have caused the low surrogate. Many samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

Matrix spikes were not performed for this analysis in batch 172815 due to limited sample volume or interferences from the solvent in sample dilutions. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):

SB-15-12.5 (lab # 226637-006) and SB-36-6.5 (lab # 226637-016) were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

Low recoveries were observed for barium in the MS/MSD of SB-41-2.5 (lab # 226637-001); the BS/BSD were within limits, and the associated RPD was within limits. Low recovery was observed for mercury in the MS of SB-9-2.5 (lab # 226605-001); the BS/BSD were within limits, and the associated RPD was within limits. High recoveries were observed for mercury and lead in the MS of SB-36-2.5 (lab # 226637-015), the MSD of SB-13-2.5 (lab # 226637-021), and the MSD of SB-25-2.5 (lab # 226688-001); the BS/BSDs were within limits, and the associated RPDs were within limits. No other analytical problems were encountered.

Page 1 of 1

Engineering & Environmental Services 2005	1 CHA	IN OF CUSTODY	RECOF	NO	VATO BOULEVARD : VATO, CALIFORNIA 9	94947
		K. Simmons/			99-1600 FAX (415) 8 SIS REQUESTED	399-1601
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		K. Simmons	VCC5			
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COOLER RECEIPT CHECKLIST



Login # 2216637 Client Pts	Date Received Proj	3/15/11 ect 6/14 0	Number of coolers	_s 2 و
	By (print) R. Park By (print) V	(sign)_ (sign)_	AA	· ·
1. Did cooler come with a sl Shipping info	nipping slip (airbill, etc)	YES	NO
2A. Were custody seals pres How many 2B. Were custody seals inta 3. Were custody papers dry 4. Were custody papers fille 5. Is the project identifiable 6. Indicate the packing in co	Name ct upon arrival? and intact when receive d out properly (ink, sig from custody papers?	ed? ned, etc)? (If so fill out top	YES YES	NO N/A NO NO NO NO
☐ Bubble Wrap ☐ Cloth material 7. Temperature documentati	☐ Cardboard	Bags ☐ Styrofoam	☐ None ☐ Paper tov	
Type of ice used:	Wet □ Blue/Gel	□None	Temp(°C) 7.9	, S . 0
☐ Samples Received	l on ice & cold without	a temperature bl	lank	
☐ Samples received	on ice directly from the	e field. Cooling p	process had begun	
8. Were Method 5035 samp If YES, what time we 9. Did all bottles arrive unbr 10. Are samples in the appre 11. Are sample labels presen 12. Do the sample labels agr 13. Was sufficient amount of 14. Are the samples appropri 15. Are bubbles > 6mm abse 16. Was the client contacted If YES, Who was cal	ling containers present ere they transferred to foken/unopened? priate containers for int, in good condition and ee with custody papers a sample sent for tests rately preserved? Int in VOA samples? concerning this sample	?	erraeores (Y) (Y) (Y) (Y) (Y) (Y) (Y) (Y) (Y) (Y)	ES NO ES NO ES NO ES NO ES NO NO NO NO NO NO NO NO NO NO NO NO NO N
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SOP Volume: Client Services

Section:

1.1.2

Page: 1 of 1

Rev. 6 Number 1 of 3 Effective: 23 July 2008

 $Z:\qc\forms\checklists\cdoc$

Desiree Tetrault

From:

"Chris Baldassari" <cbaldassari@pesenv.com>

To:

"Desiree Tetrault" <desiree.tetrault@ctberk.com>; "Ken Simmons" <KSimmons@pesenv.com>

Sent:

Monday, March 21, 2011 12:56 PM

Subject:

RE: 241.082 adjustments

Hi Desiree,

We don't need gravity separation for the sample, but would like silica-gel cleanup performed; please no reporting/analysis for without silica gel.

The digestion fee on analyses started already sounds fair to me; we just want to be clear on which ones shouldn't have metals reported (indicated in the COCs sent by Kenny)

Thanks, Chris

From: Desiree Tetrault [mailto:desiree.tetrault@ctberk.com]

Sent: Monday, March 21, 2011 12:52 PM

To: Ken Simmons **Cc:** Chris Baldassari

Subject: Re: 241.082 adjustments

Hey Ken and Chris- thanks for the update. There shouldn't be any problems changing the IDs and the requests for analyses, although for logins 226688 and 226712 we have already prepped the samples for the metals. I can remove the analyses that you listed, but will have to charge a \$10 digestion fee for the ones already started.

Could you confirm that you do or do not need gravity separation for the last water sample (226732-001) submitted on Friday? Also, do you need the results to be reported with and without silica gel cleanup?

Thank you and please feel free to call with any questions.

Desirée Tétrault Project Manager Curtis and Tompkins, Ltd 2323 Fifth Street Berkeley CA 94710 510.204.2221 www.curtisandtompkins.com

---- Original Message -----

From: Ken Simmons

To: desiree.tetrault@ctberk.com

Cc: Chris Baldassari

Sent: Monday, March 21, 2011 10:58 AM

Subject: 241.082 adjustments

Morning Desiree -

After reviewing the log-in sheets and COCs, there are a few adjustments to sample names and analysis that we would like to see.

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Lab #: 226637 Location: 64th & Christie Emeryville, CA Client: PES Environmental, Inc. Prep: EPA 5035

 Project#:
 241.082.02.001
 Analysis:
 EPA 8015B

 Matrix:
 Soil
 Diln Fac:
 1.000

Units: mg/Kg Sampled: 03/15/11 Basis: as received Received: 03/15/11

Field ID: SB-41-2.5 Batch#: 172872 Type: SAMPLE Analyzed: 03/18/11

Lab ID: 226637-001

Analyte Result RL
Gasoline C7-C12 ND 0.16

Surrogate %REC Limits
Bromofluorobenzene (FID) 105 67-140

Field ID: SB-41-6.5 Batch#: 172872
Type: SAMPLE Analyzed: 03/18/11

Lab ID: 226637-002

Analyte Result RL
Gasoline C7-C12 ND 0.16

Surrogate %REC Limits
Bromofluorobenzene (FID) 103 67-140

Field ID: SB-41-12.5 Batch#: 172872 Type: SAMPLE Analyzed: 03/18/11

Lab ID: 226637-003

Analyte Result RL

Gasoline C7-C12 ND 0.18

Surrogate %REC Limits
Bromofluorobenzene (FID) 101 67-140

Field ID: SB-15-2.5 Batch#: 172872 Type: SAMPLE Analyzed: 03/18/11

Lab ID: 226637-004

Analyte Result RL
Gasoline C7-C12 ND 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 105 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 1 of 8



Gasoline by GC/FID (5035 Prep) Location: 64th & Christie Emeryville, CA Lab #: 226637

Client: PES Environmental, Inc. EPA 5035 Prep: Analysis: Diln Fac: Project#: 241.082.02.001 EPA 8015B

1.000 Matrix: Soil Units: mg/Kg Sampled: 03/15/11 Basis: as received Received: 03/15/11

Field ID: SB-15-4.5 Type: SAMPLE 226637-005 Lab ID:

Batch#: 172872 Analyzed: 03/18/11

Result Analyte Gasoline C7-C12 ND

0.19 Limits Surrogate %REC 105

Field ID: SB-15-12.5 Batch#: 172872 Type: SAMPLE Analyzed: 03/18/11

67-140

Lab ID: 226637-006

Bromofluorobenzene (FID)

Result Analyte RLGasoline C7-C12 0.28 Y 0.16

%REC Limits Surrogate 67-140 Bromofluorobenzene (FID) 103

Field ID: SB-40-2.5Batch#: 172872 SAMPLE 03/18/11 Type: Analyzed:

226637-007 Lab ID:

Result Analyte Gasoline C7-C12 ND 0.17

%REC Limits Surrogate Bromofluorobenzene (FID)

SB-40-7.5Field ID: Batch#: 172872 SAMPLE Analyzed: 03/18/11 Type:

Lab ID: 226637-008

Analyte Result RLGasoline C7-C12 0.19 Y 0.17

Surrogate %REC Limits Bromofluorobenzene (FID)

ND= Not Detected

RL= Reporting Limit

Page 2 of 8

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard



Location: 64th & Christie Emeryville, CA Lab #: 226637 Client: PES Environmental, Inc. EPA 5035 Prep:

Analysis: Diln Fac: Project#: 241.082.02.001 EPA 8015B Matrix: Soil

1.000 Units: mg/Kg Sampled: 03/15/11 Basis: as received Received: 03/15/11

Field ID: SB-40-12.5 Batch#: 172872 Type: SAMPLE Analyzed: 03/18/11

226637-009 Lab ID:

Result Analyte Gasoline C7-C12 0.19 Y 0.16

Limits Surrogate %REC Bromofluorobenzene (FID) 110 67-140

Field ID: SB-14-2.5 Batch#: 172872 Type: SAMPLE Analyzed: 03/18/11

Lab ID: 226637-010

Result Analyte RLGasoline C7-C12 ND 0.17

%REC Limits Surrogate Bromofluorobenzene (FID) 102

Field ID: SB-37-2.5 Batch#: 172895 SAMPLE 03/17/11 Type: Analyzed:

226637-011 Lab ID:

Result Analyte Gasoline C7-C12 0.17 Y 0.16

%REC Limits Surrogate Bromofluorobenzene (FID)

SB-37-7.5Field ID: Batch#: 172895 SAMPLE Analyzed: 03/17/11 Type: Lab ID: 226637-012

Analyte Result RLGasoline C7-C12 ND 0.16

Surrogate %REC Limits Bromofluorobenzene (FID) 113

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226637 Location: 64th & Christie Emeryville, CA Client: PES Environmental, Inc. EPA 5035 Prep:

Analysis: Diln Fac: Project#: 241.082.02.001 EPA 8015B

1.000 Matrix: Soil Units: mg/Kg Sampled: 03/15/11 Basis: as received Received: 03/15/11

Field ID: SB-37-12.5 Batch#: 172895 Type: SAMPLE Analyzed: 03/17/11

226637-013 Lab ID:

Result Analyte Gasoline C7-C12 ND 0.15

%REC Limits Surrogate Bromofluorobenzene (FID) 117 67-140

Field ID: SB-14-7.5 Batch#: 172895 Type: SAMPLE Analyzed: 03/17/11

Lab ID: 226637-014

Result Analyte RLGasoline C7-C12 ND 0.17

%REC Limits Surrogate Bromofluorobenzene (FID) 111

Field ID: SB-36-2.5 Batch#: 172895 SAMPLE 03/17/11 Type: Analyzed:

226637-015 Lab ID:

Result Analyte Gasoline C7-C12 ND 0.16

%REC Limits Surrogate

Bromofluorobenzene (FID)

Field ID: SB-36-6.5 Batch#: 172895 SAMPLE Analyzed: 03/18/11 Type: Lab ID: 226637-016

Analyte Result RLGasoline C7-C12 ND 0.19

Surrogate %REC Limits Bromofluorobenzene (FID) 110

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226637 Location: 64th & Christie Emeryville, CA Client: PES Environmental, Inc. Prep: EPA 5035

Client: PES Environmental, Inc. Prep: EPA 5035
Project#: 241.082.02.001 Analysis: EPA 8015B
Matrix: Soil Diln Fac: 1.0

 Matrix:
 Soil
 Diln Fac:
 1.000

 Units:
 mg/Kg
 Sampled:
 03/15/11

 Basis:
 as received
 Received:
 03/15/11

Field ID: SB-36-12.5 Type: SAMPLE Lab ID: 226637-017

Batch#: 172895 Analyzed: 03/17/11

03/18/11

Analyte Result RL

Gasoline C7-C12 1.8 Y 0.20

Surrogate %REC Limits
Bromofluorobenzene (FID) 141 * 67-140

Field ID: SB-10-2.5 Batch#: 172895 Type: SAMPLE Analyzed: 03/17/11

Lab ID: 226637-018

AnalyteResultRLGasoline C7-C12ND0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 107 67-140

Field ID: SB-10-5.5 Batch#: 172895

Type: SAMPLE Lab ID: 226637-019

AnalyteResultRLGasoline C7-C12ND0.16

Analyzed:

Surrogate %REC Limits
Bromofluorobenzene (FID) 111 67-140

Field ID: SB-10-12.5 Batch#: 172895
Type: SAMPLE Analyzed: 03/18/11
Lab ID: 226637-020

 Analyte
 Result
 RL

 Gasoline C7-C12
 0.75 Y
 0.23

Surrogate %REC Limits
Bromofluorobenzene (FID) 132 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226637 Location: 64th & Christie Emeryville, CA Client: PES Environmental, Inc. EPA 5035 Prep:

Analysis: Diln Fac: Project#: 241.082.02.001 EPA 8015B

1.000 Matrix: Soil Units: mg/Kg Sampled: 03/15/11 Basis: as received Received: 03/15/11

Field ID: SB-13-2.5 Batch#: 172895 Type: SAMPLE Analyzed: 03/18/11

226637-021 Lab ID: Result

Analyte Gasoline C7-C12 ND 0.16

Limits Surrogate %REC Bromofluorobenzene (FID) 118 67-140

SB-39-2.5 Field ID: Batch#: 172895 Type: SAMPLE Analyzed: 03/18/11

Lab ID: 226637-022

Result Analyte RLGasoline C7-C12 ND 0.15

%REC Limits Surrogate 108 Bromofluorobenzene (FID)

Field ID: SB-39-5.0 Batch#: 172895 SAMPLE 03/18/11 Type: Analyzed:

226637-023 Lab ID:

Result Analyte Gasoline C7-C12 ND 0.15

%REC Limits Surrogate Bromofluorobenzene (FID) 118

SB-39-12.5 Field ID: Batch#: 172895 SAMPLE Analyzed: 03/18/11 Type:

Lab ID: 226637-024

Analyte Result RLGasoline C7-C12 ND 0.17

Surrogate %REC Limits Bromofluorobenzene (FID) 118

ND= Not Detected

RL= Reporting Limit

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard



03/15/11

172895

03/18/11

Gasoline by GC/FID (5035 Prep)

Lab #: 226637 Location: 64th & Christie Emeryville, CA Client: PES Environmental, Inc. Prep: EPA 5035

Received:

Batch#:

Analyzed:

 Project#:
 241.082.02.001
 Analysis: EPA 8015B

 Matrix:
 Soil
 Diln Fac: 1.000

 Units:
 mg/Kg
 Sampled: 03/15/11

Type: SAMPLE Lab ID: 226637-025

Basis:

Field ID:

Analyte Result RL

AnalyteResultRLGasoline C7-C12ND0.16

Surrogate%RECLimitsBromofluorobenzene (FID)10567-140

as received

SB-38-2.5

Field ID: SB-38-7.5 Batch#: 172895 Type: SAMPLE Analyzed: 03/18/11

Lab ID: 226637-026

Analyte Result RL
Gasoline C7-C12 ND 0.18

Surrogate %REC Limits
Bromofluorobenzene (FID) 113 67-140

Field ID: SB-38-12.5 Batch#: 172895 Type: SAMPLE Analyzed: 03/18/11

Lab ID: 226637-027

 Analyte
 Result
 RL

 Gasoline C7-C12
 0.55 Y
 0.19

Surrogate %REC Limits
Bromofluorobenzene (FID) 128 67-140

Type: BLANK Batch#: 172872 Lab ID: QC584195 Analyzed: 03/17/11

Analyte Result RL
Gasoline C7-C12 ND 0.20

Surrogate %REC Limits
Bromofluorobenzene (FID) 100 67-140

ND= Not Detected

RL= Reporting Limit

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard



Gasoline by GC/FID (5035 Prep) Location: 64th & Christie Emeryville, CA Prep: EPA 5035 Lab #: 226637 Client: PES Environmental, Inc. Analysis: Diln Fac: Project#: 241.082.02.001 EPA 8015B Soil 1.000 Matrix: 03/15/11 Units: mg/Kg Sampled: Basis: as received Received: 03/15/11

Type: BLANK Batch#: 172895 Lab ID: QC584290 Analyzed: 03/17/11

Analyte Result RL
Gasoline C7-C12 ND 0.20

Surrogate %REC Limits
Bromofluorobenzene (FID) 98 67-140

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



	Gasoline by	GC/FID (5035 Prep)
Lab #:	226637	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5035
Project#:	241.082.02.001	Analysis: EPA 8015B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC584194	Batch#: 172872
Matrix:	Soil	Analyzed: 03/17/11
Units:	mg/Kg	

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.038	104	79-121

%REC Limits	Surrogate
D) 105 67-140	omofluorobenzene (FII

Page 1 of 1



	Gasoline by	GC/FID (5035 Prep)
Lab #:	226637	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5030B
Project#:	241.082.02.001	Analysis: EPA 8015B
Field ID:	ZZZZZZZZZ	Diln Fac: 1.000
MSS Lab ID:	226692-001	Batch#: 172872
Matrix:	Soil	Sampled: 03/17/11
Units:	mg/Kg	Received: 03/17/11
Basis:	as received	Analyzed: 03/17/11

Type: MS Lab ID: QC584255

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.08917	9.615	6.370	65	41-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	105	67-140

Type: MSD Lab ID: QC584256

Analyte	Spiked	Result	%REC	Limits	RPD Lim	a
Gasoline C7-C12	9.709	6.308	64	41-120	2 47	



Gasoline by GC/FID (5035 Prep)						
Lab #:	226637	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5035				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Matrix:	Soil	Batch#: 172895				
Units:	mg/Kg	Analyzed: 03/17/11				
Diln Fac:	1.000					

Type: BS Lab ID: QC584288

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.082	108	79-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	105	67-140	

Type: BSD Lab ID: QC584289

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	1.015	101	79-121	6	23

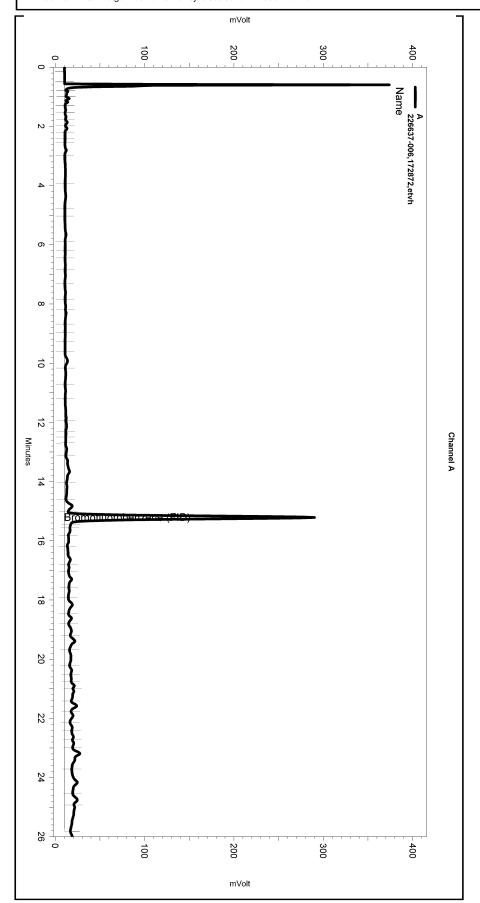
Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	67-140

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Sample Name: 226637-006,172872,etvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\076-027 Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe074.met

Software Version 3.1.7 Run Date: 3/18/2011 5:24:53 AM Analysis Date: 3/18/2011 1:22:58 PM Sample Amount: 6.45 Multiplier: 6.45 Vial & pH or Core ID: a



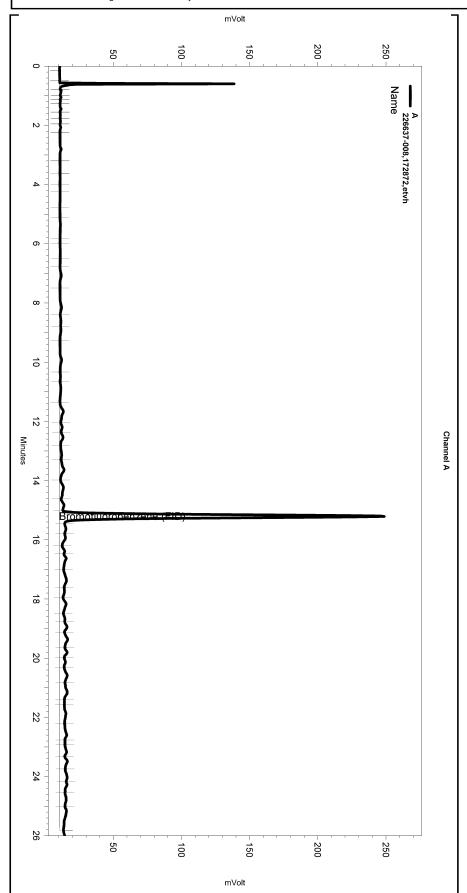
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Sample Name: 226637-008,172872,etvh

Data File: \\Lims\gdrive\ezchrom\\Projects\GC07\Data\076-029 \\
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) \\
Method Name: \\Lims\gdrive\ezchrom\\Projects\GC07\Method\tvhbtxe074.met

Software Version 3.1.7 Run Date: 3/18/2011 6:41:56 AM Analysis Date: 3/18/2011 1:24:06 PM Sample Amount: 5.73 Multiplier: 5.73 Vial & pH or Core ID: a



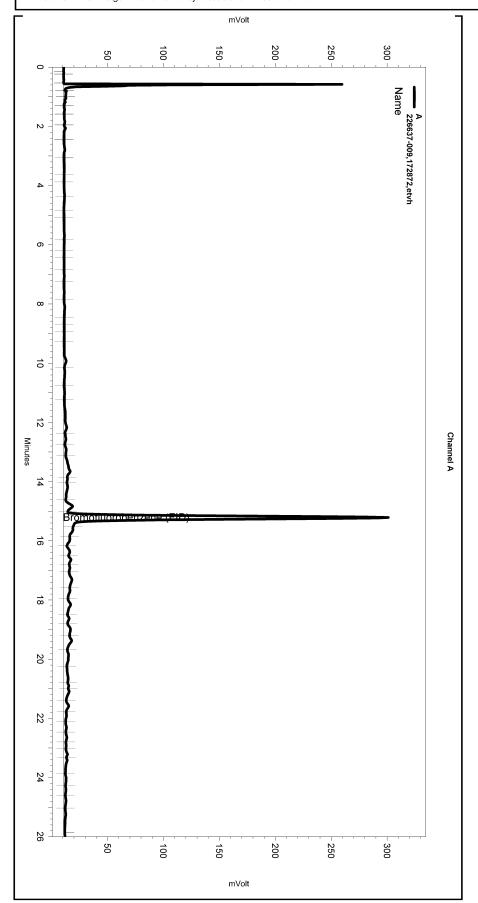
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	(Minutes) (Minutes) Value

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Sample Name: 226637-009,172872,etvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC07\Data\076-030 \
Instrument: GC07 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) \
Method Name: \\Lims\gdrive\ezchrom\Projects\GC07\Method\tvhbtxe074.met

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Yes Threshold 0 0 Manual Integration Fixes Data File: \\Lims\gdrive\ezchrom\Projects\GC0	50
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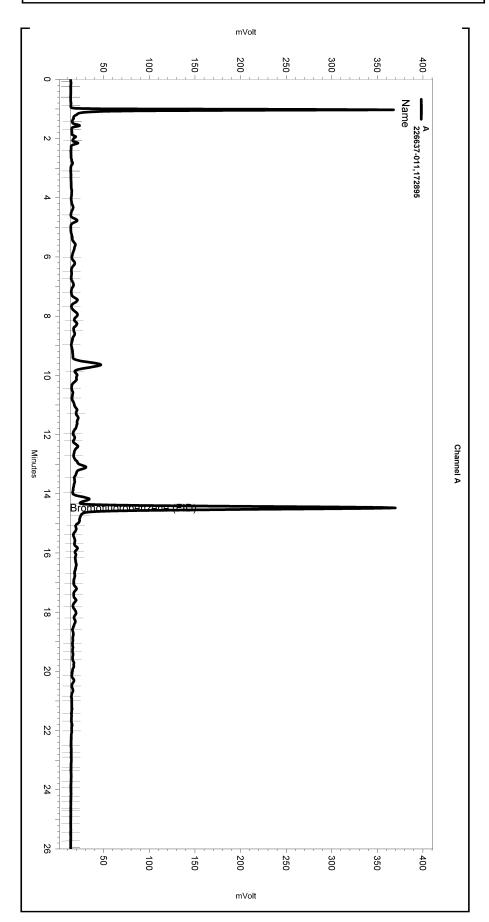
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Sample Name: 226637-011,172895

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\076-004 Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/17/2011 7:21:38 PM Analysis Date: 3/18/2011 2:42:40 PM Sample Amount: 6.12 Multiplier: 6.12

Vial & pH or Core ID: a



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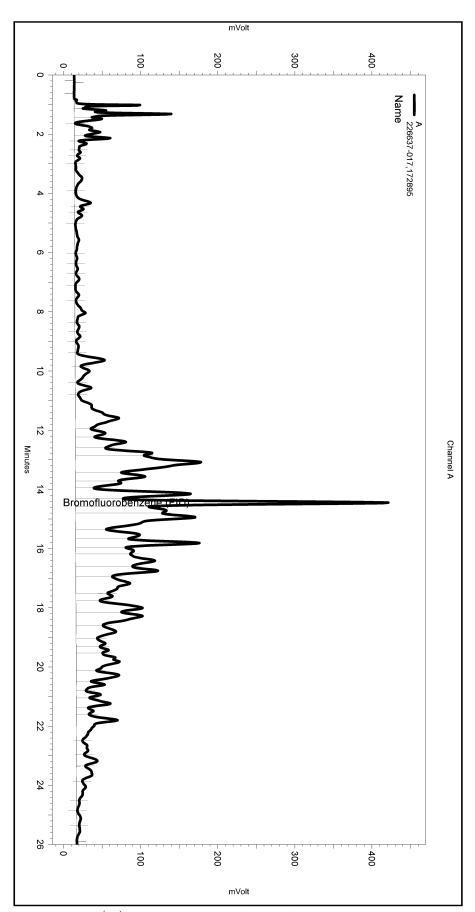
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Software Version 3.1.7 Run Date: 3/17/2011 11:10:45 PM Analysis Date: 3/17/2011 11:40:12 PM Sample Amount: 5.11 Multiplier: 5.11

Vial & pH or Core ID: a



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Yes Width Yes Threshold Manual Integration Fixes Data File: C:\Documents and S Data\ChromatographySystem\Re Data\Instrument.10047\076-010	(Minutes) (Minutes) Value 0 0 0.2 0 0 50 ettings\All Users\Application scovery 82B5.tmp art Stop (Minutes) (Minutes) Value

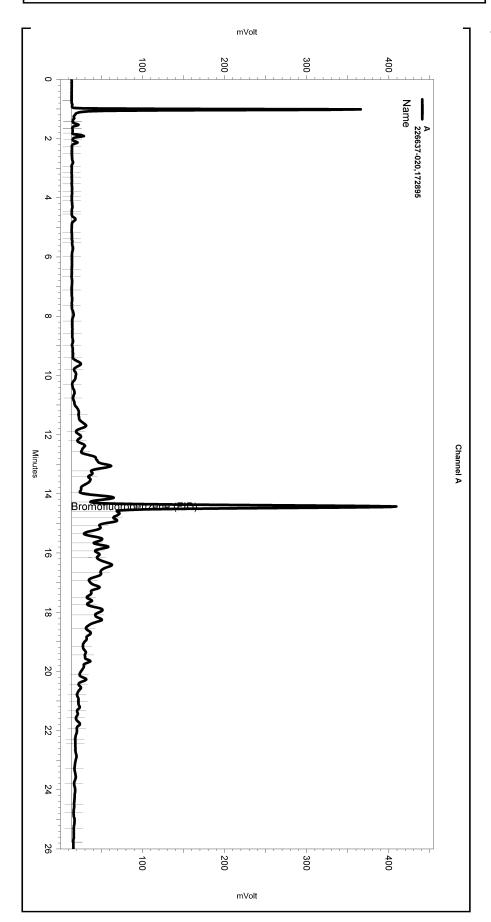
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Sample Name: 226637-020,172895

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Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) \\
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/18/2011 12:05:27 PM Analysis Date: 3/18/2011 3:15:56 PM Sample Amount: 4.4 Multiplier: 4.4

Vial & pH or Core ID: b



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Enabl	ed Event Type				linutes)	Value
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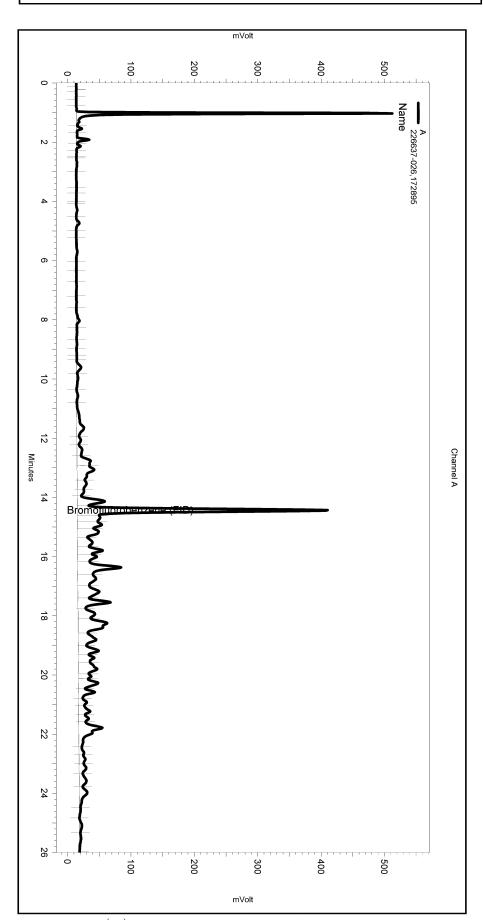
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Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/18/2011 12:42:59 PM Analysis Date: 3/18/2011 1:12:29 PM Sample Amount: 5.34 Multiplier: 5.34

Vial & pH or Core ID: c



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		Start	Sto)		
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Yes Yes	Width Threshold		0	0	0.2 50	
Manual In	tegration Fixes					
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Data\Chro Data\Instr	omatographySystem	n\Recov 27_82	very C7.tmp Stop	o	s∖Applicat ∕Iinutes)	

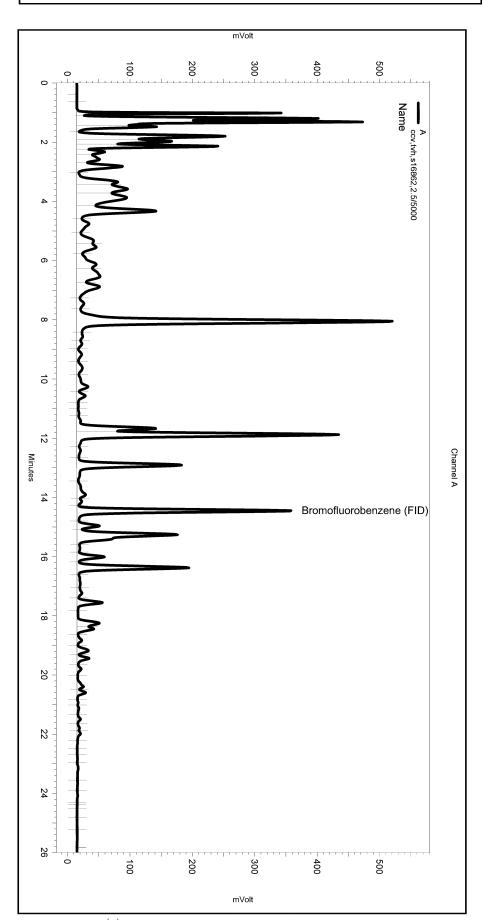
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Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/17/2011 10:53:54 AM Analysis Date: 3/17/2011 11:23:23 AM Sample Amount: 5 Multiplier: 5

Vial & pH or Core ID: {Data Description}



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Enabled Event Type	(Minutes) (Minutes)	Value
None		



Field ID: SB-41-2.5 Prepared: 03/18/11 Analyzed: Type: SAMPLE 03/21/11 SHAKER TABLE Lab ID: 226637-001 Prep: Diln Fac: 20.00 Cleanup Method: EPA 3630C Batch#: 172914

Analyte	Result	RL	
Diesel C10-C24	110 Y	20	
Motor Oil C24-C36	590	100	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: SB-41-6.5 Prepared: 03/18/11 Type: SAMPLE Analyzed: 03/21/11 226637-002 Lab ID: Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172914

 Analyte
 Result
 RL

 Diesel C10-C24
 86 Y
 1.0

 Motor Oil C24-C36
 190
 5.0

Surrogate	%REC	Limits		
o-Terphenvl	73	52-130		

Field ID: SB-41-12.5 Prepared: 03/18/11 SAMPLE Analyzed: 03/21/11 Type: Lab ID: 226637-003 Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 172914

Analyte	Result	RL	
Diesel C10-C24	120 Y	10	
Motor Oil C24-C36	340	50	

Surrogate %REC Limits O-Terphenyl DO 52-130				
	Surrogate	੭ੜੜ%	Limits	
lo-Terphenyl DO 52-130		<u> </u>		
	o-Terphenyl	DO	52-130	

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 1 of 10

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard



Field ID: SB-15-2.5 Prepared: 03/18/11 Type: SAMPLE Analyzed: 03/21/11 Lab ID: 226637-004 Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 172914

Analyte	Result	RL	
Diesel C10-C24	130 Y	10	
Motor Oil C24-C36	600	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: SB-15-4.5 Prepared: 03/18/11 Type: SAMPLE Analyzed: 03/21/11 226637-005 Lab ID: Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 172914

Analyte	Result	RL	
Diesel C10-C24	230 Y	10	
Motor Oil C24-C36	410	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Prepared: Field ID: SB-15-12.5 03/18/11 03/20/11 Type: SAMPLE Analyzed: 226637-006 Prep: Lab ID: SHAKER TABLE 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172914

Analyte	Result	RL	
Diesel C10-C24	98 Y	1.0	
Motor Oil C24-C36	210	5.0	

Surrogate	%REC	Limits
o-Terphenyl	70	52-130

Page 2 of 10

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Field ID: SB-40-2.5Prepared: 03/18/11 Type: SAMPLE Analyzed: 03/21/11 Lab ID: 226637-007 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172914

Analyte	Result	RL	
Diesel C10-C24	25 Y	1.0	
Motor Oil C24-C36	90	5.0	

Surrogate	%REC	Limits
o-Terphenyl	76	52-130

Field ID: SB-40-7.5Prepared: 03/18/11 SAMPLE Type: Analyzed: 03/21/11 226637-008 Lab ID: Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172914

Analyte	Result	RL	
Diesel C10-C24	64 Y	1.0	
Motor Oil C24-C36	89	5.0	

Surrogate	%REC	Limits
o-Terphenyl	72	52-130

SB-40-12.5 Field ID: Prepared: 03/18/11 03/20/11 Type: SAMPLE Analyzed: Prep: Lab ID: 226637-009 SHAKER TABLE 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172914

Analyte	Result	RL	
Diesel C10-C24	47 Y	0.99	
Motor Oil C24-C36	56	5.0	

Surrogate	%REC	Limits
o-Terphenyl	80	52-130

Page 3 of 10

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Field ID: SB-14-2.5 Prepared: 03/18/11 Type: SAMPLE Analyzed: 03/21/11 Lab ID: 226637-010 Prep: SHAKER TABLE Diln Fac: 20.00 Cleanup Method: EPA 3630C Batch#: 172914

Analyte	Result	RL	
Diesel C10-C24	230 Y	20	
Motor Oil C24-C36	800	100	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: SB-37-2.5 Prepared: 03/20/11 Type: SAMPLE Analyzed: 03/22/11 Lab ID: 226637-011 Prep: SHAKER TABLE Diln Fac: 5.000 Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	99 Y	5.0	
Motor Oil C24-C36	480	25	

Surrogate	%REC	Limits
o-Terphenyl	31 *	52-130

Prepared: SB-37-7.5Field ID: 03/18/11 03/21/11 Type: SAMPLE Analyzed: Prep: Lab ID: 226637-012 EPA 3550B 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172943

Analyte	Result	RL	
Diesel C10-C24	2.0 Y	1.0	
Motor Oil C24-C36	8.6	5.0	

Surrogate	%REC	Limits
o-Terphenyl	103	52-130

RL= Reporting Limit

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out
ND= Not Detected



Field ID: SB-37-12.5 Prepared: 03/18/11 Type: SAMPLE Analyzed: 03/21/11 Lab ID: 226637-013 Prep: EPA 3550B 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172943

Analyte	Result	RL	
Diesel C10-C24	53 Y	1.0	
Motor Oil C24-C36	130	5.0	

Surrogate	%REC	Limits
o-Terphenyl	98	52-130

Field ID: SB-14-7.5 Prepared: 03/18/11 03/21/11 Type: SAMPLE Analyzed: Lab ID: 226637-014 Prep: EPA 3550B Cleanup Method: EPA 3630C Diln Fac: 5.000 Batch#: 172943

Analyte	Result	RL	
Diesel C10-C24	150 Y	5.0	
Motor Oil C24-C36	360	25	

Surrogate	%REC	Limits
o-Terphenyl	74	52-130

03/18/11 Field ID: SB-36-2.5 Prepared: 03/21/11 Type: SAMPLE Analyzed: 226637-015 Prep: Lab ID: EPA 3550B 5.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172943

Analyte	Result	RL	
Diesel C10-C24	35 Y	5.0	
Motor Oil C24-C36	160	25	

Surrogate	%REC	Limits
o-Terphenyl	103	52-130

RL= Reporting Limit

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected



Field ID: SB-36-6.5 Prepared: 03/18/11 Analyzed: Type: SAMPLE 03/21/11 Lab ID: 226637-016 Prep: EPA 3550B Diln Fac: 5.000 Cleanup Method: EPA 3630C Batch#: 172943

Analyte	Result	RL	
Diesel C10-C24	130 Y	5.0	
Motor Oil C24-C36	290	25	

Surrogate	%REC	Limits
o-Terphenyl	95	52-130

Field ID: SB-36-12.5 03/20/11 Prepared: Type: SAMPLE Analyzed: 03/21/11 Lab ID: 226637-017 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	180	1.0	
Motor Oil C24-C36	260	5.0	

Surrogate	%REC	Limits
o-Terphenyl	69	52-130

Prepared: 03/20/11 Field ID: SB-10-2.5 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226637-018 Prep: SHAKER TABLE 5.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	210 Y	5.0	
Motor Oil C24-C36	630	25	

Surrogate	%REC	Limits
o-Terphenyl	59	52-130

RL= Reporting Limit

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out
ND= Not Detected



Field ID: SB-10-5.5 Prepared: 03/20/11 03/21/11 Type: SAMPLE Analyzed: Lab ID: 226637-019 Prep: SHAKER TABLE 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	1.3 Y	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
o-Terphenyl	76	52-130

Field ID: SB-10-12.5 03/20/11 Prepared: Type: SAMPLE Analyzed: 03/21/11 Lab ID: 226637-020 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	24 Y	1.0	
Motor Oil C24-C36	42	5.0	

Surrogate	%REC	Limits
o-Terphenyl	79	52-130

Field ID: SB-13-2.5 Prepared: 03/20/11
Type: SAMPLE Analyzed: 03/22/11
Lab ID: 226637-021 Prep: SHAKER TABLE
Diln Fac: 5.000 Cleanup Method: EPA 3630C

Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	140 Y	5.0	
Motor Oil C24-C36	410	25	

Surrogate	%REC	Limits
o-Terphenyl	60	52-130

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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Field ID: SB-39-2.5 Prepared: 03/20/11 03/21/11 Type: SAMPLE Analyzed: Lab ID: 226637-022 Prep: SHAKER TABLE 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	26 Y	1.0	
Motor Oil C24-C36	36	5.0	

Surrogate	%REC	Limits
o-Terphenyl	73	52-130

Field ID: SB-39-5.0 03/20/11 Prepared: Type: SAMPLE Analyzed: 03/21/11 Lab ID: 226637-023 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	38 Y	0.99	
Motor Oil C24-C36	69	5.0	

Surrogate	%REC	Limits
o-Terphenyl	80	52-130

Prepared: SB-39-12.5 03/20/11 Field ID: 03/21/11 Type: SAMPLE Analyzed: Prep: SHAKER TABLE Lab ID: 226637-024 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#:

3atch#: 172955

Analyte	Result	RL	
Diesel C10-C24	3.8 Y	1.0	
Motor Oil C24-C36	18	5.0	

Surrogate	%REC	Limits
o-Terphenyl	64	52-130

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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Field ID: SB-38-2.5 Prepared: 03/20/11 03/21/11 Type: SAMPLE Analyzed: Lab ID: 226637-025 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	16 Y	1.0	
Motor Oil C24-C36	55	5.0	

Surrogate	%REC	Limits
o-Terphenyl	86	52-130

Field ID: SB-38-7.5 Prepared: 03/20/11 Type: SAMPLE Analyzed: 03/22/11 Lab ID: 226637-026 Prep: SHAKER TABLE Diln Fac: 100.0 Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	3,500 Y	400	
Motor Oil C24-C36	18,000	2,000	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: 03/20/11 SB-38-12.5 Prepared: Type: SAMPLE Analyzed: 03/21/11 Lab ID: SHAKER TABLE 226637-027 Prep: 1.000 Diln Fac: EPA 3630C Cleanup Method: Batch#: 172955

 Analyte
 Result
 RL

 Diesel C10-C24
 33
 1.0

 Motor Oil C24-C36
 50
 5.0

Surrogate	%REC	Limits
o-Terphenyl	59	52-130

RL= Reporting Limit

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out
ND= Not Detected



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226637 Client: PES Environmental, Inc. Analysis: EPA 8015B Project#: 241.082.02.001 Sampled: Matrix: Soil 03/15/11 Units: mg/Kg Received: 03/15/11 Basis: as received

Type: BLANK Prepared: 03/18/11
Lab ID: QC584370 Analyzed: 03/20/11
Diln Fac: 1.000 Prep: SHAKER TABLE
Batch#: 172914 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	0.99	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	imits	
Bullogue	01110	THI CO	
o-Terphenyl	66	52-130	

Type: BLANK Prepared: 03/18/11
Lab ID: QC584470 Analyzed: 03/21/11
Diln Fac: 1.000 Prep: EPA 3550B
Batch#: 172943 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
o-Terphenyl	94	52-130

Type: BLANK Prepared: 03/20/11
Lab ID: QC584510 Analyzed: 03/21/11
Diln Fac: 1.000 Prep: SHAKER TABLE
Batch#: 172955 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
o-Terphenyl	74	52-130

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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	Total Extract	able Hydrocarbons
Lab #:	226637	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE
Project#:	241.082.02.001	Analysis: EPA 8015B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC584371	Batch#: 172914
Matrix:	Soil	Prepared: 03/18/11
Units:	mg/Kg	Analyzed: 03/20/11

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.91	36.69	74	44-151

Surrogate	%REC	Limits
o-Terphenyl	74	52-130

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Total Extractable Hydrocarbons						
Lab #:	226637	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Field ID:	ZZZZZZZZZ	Batch#: 172914				
MSS Lab ID:	226568-034	Sampled: 03/09/11				
Matrix:	Soil	Received: 03/11/11				
Units:	mg/Kg	Prepared: 03/18/11				
Basis:	as received	Analyzed: 03/20/11				
Diln Fac:	1.000					

Type: MS Lab ID: QC584372

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	4.392	49.72	46.03	84	39-146

Surrogate	%REC	Limits
o-Terphenyl	83	52-130

Type: MSD Lab ID: QC584373

Analyte	Spiked	Result	%REC	Limits	RPD :	Lim
Diesel C10-C24	49.91	33.28	58	39-146	32	61



Total Extractable Hydrocarbons						
Lab #:	226637	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 3550B				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Type:	LCS	Diln Fac: 1.000				
Lab ID:	QC584471	Batch#: 172943				
Matrix:	Soil	Prepared: 03/18/11				
Units:	mg/Kg	Analyzed: 03/21/11				

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.30	45.35	90	44-151

Surrogate	%REC	Limits
o-Terphenyl	97	52-130

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Total Extractable Hydrocarbons						
Lab #:	226637	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 3550B				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Field ID:	SB-36-6.5	Batch#: 172943				
MSS Lab ID:	226637-016	Sampled: 03/15/11				
Matrix:	Soil	Received: 03/15/11				
Units:	mg/Kg	Prepared: 03/18/11				
Basis:	as received	Analyzed: 03/21/11				
Diln Fac:	5.000					

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC584472

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	134.7	50.47	275.8	280 *	39-146

Surrogate	%REC	Limits
o-Terphenyl	113	52-130

Type: MSD Cleanup Method: EPA 3630C

Lab ID: QC584473

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.34	156.2	43	39-146	55	61

Surrogate	%REC	Limits	
o-Terphenyl	73	52-130	

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1



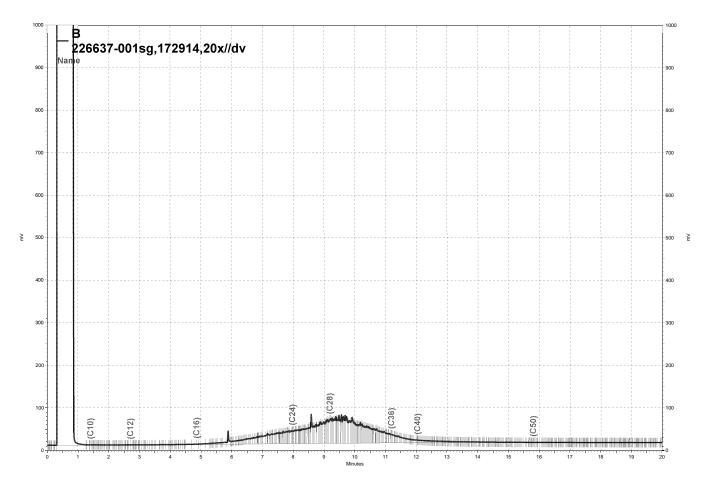
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Lab #:	226637	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE			
Project#:	241.082.02.001	Analysis: EPA 8015B			
Type:	LCS	Diln Fac: 1.000			
Lab ID:	QC584511	Batch#: 172955			
Matrix:	Soil	Prepared: 03/20/11			
Units:	mg/Kg	Analyzed: 03/21/11			

Cleanup Method: EPA 3630C

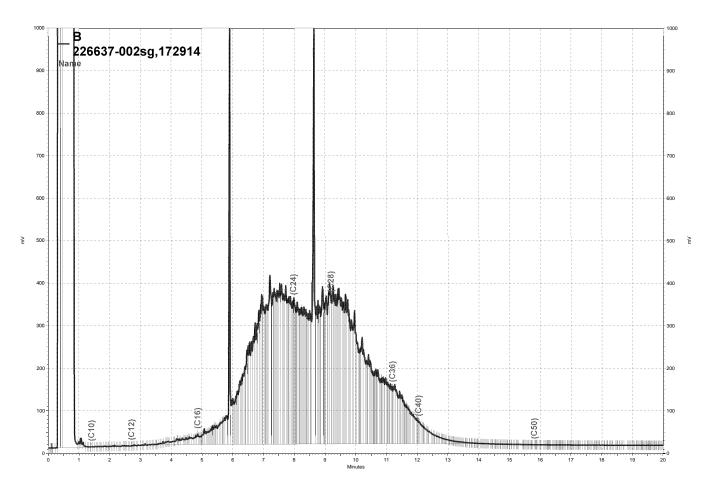
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Diesel C10-C24	49.82	40.21	81	44-151

Surrogate	%REC	Limits
o-Terphenyl	82	52-130

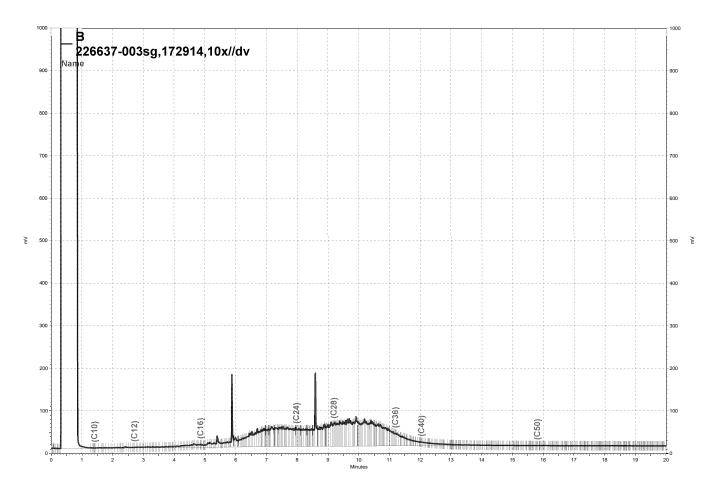
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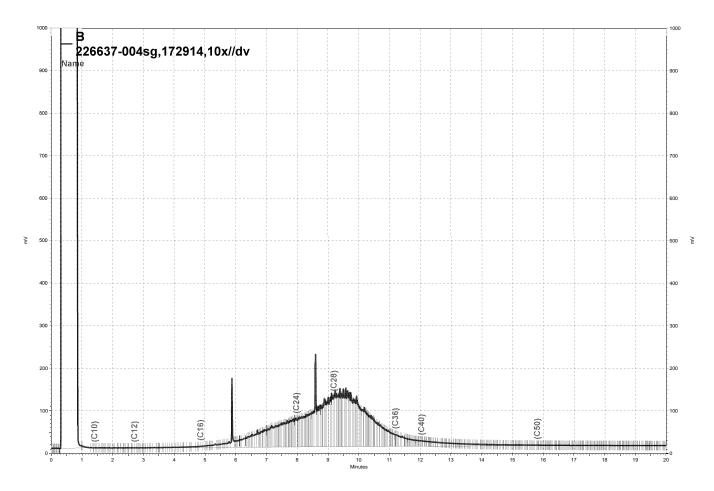
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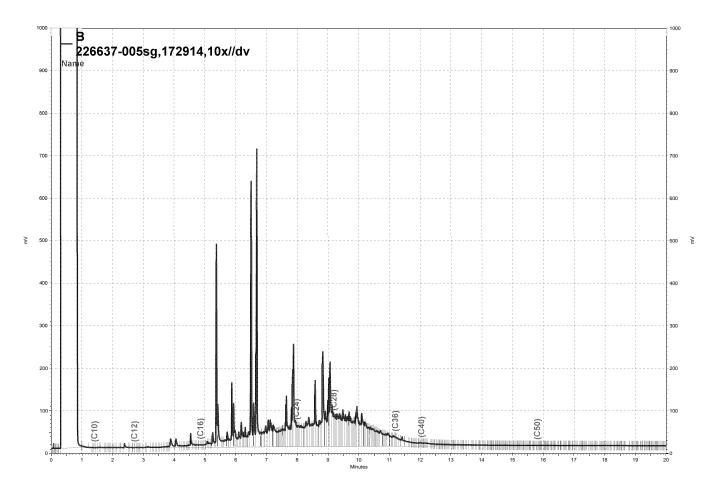
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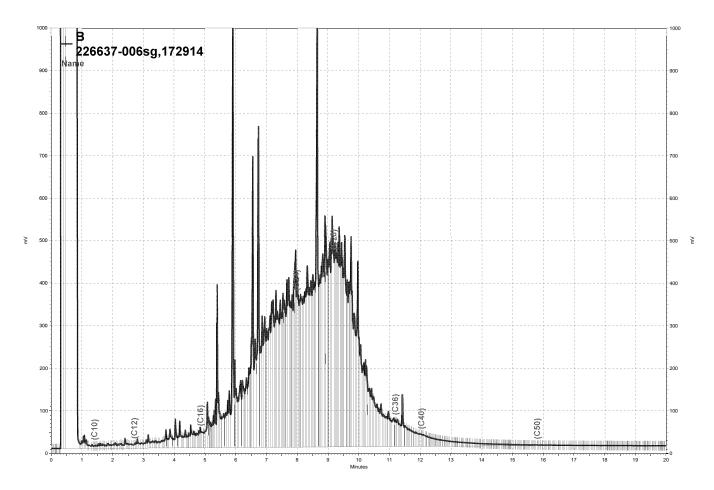
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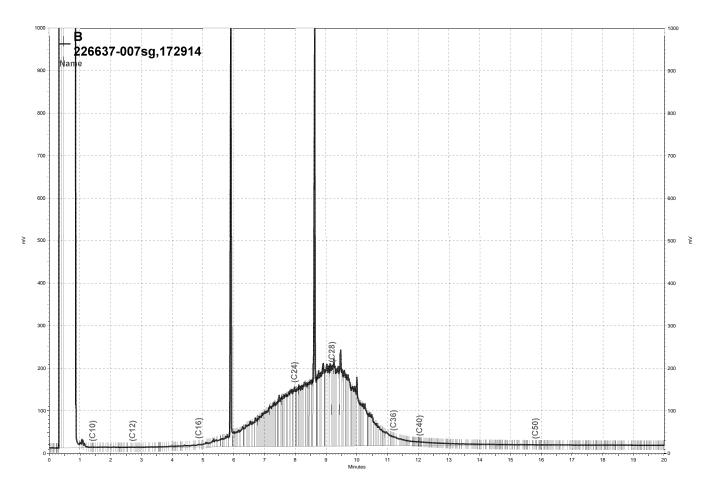
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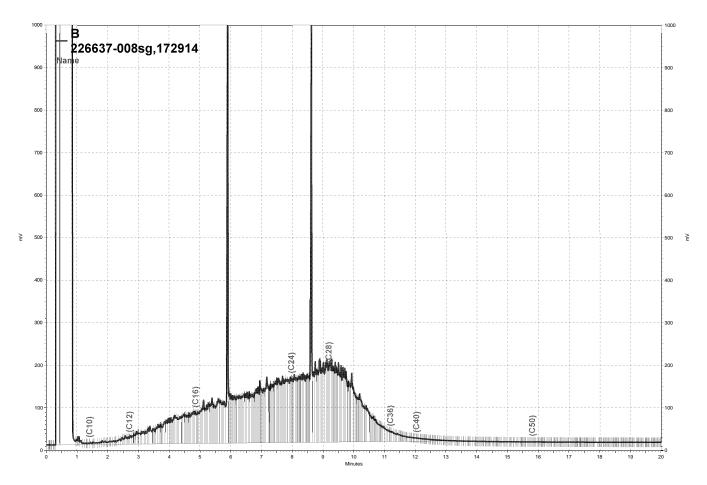
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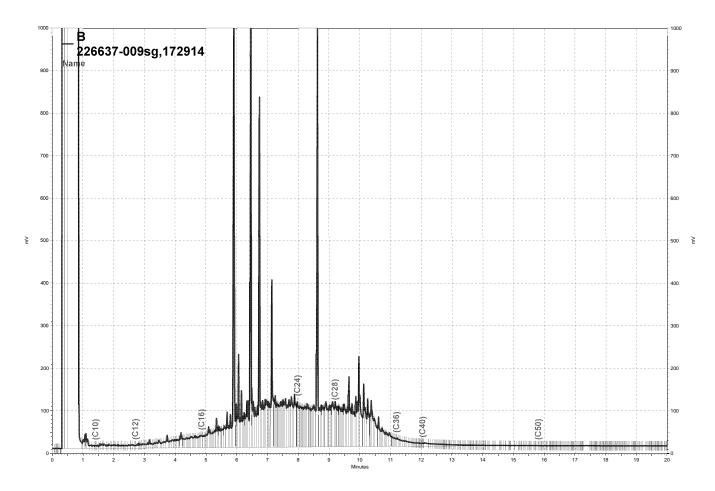
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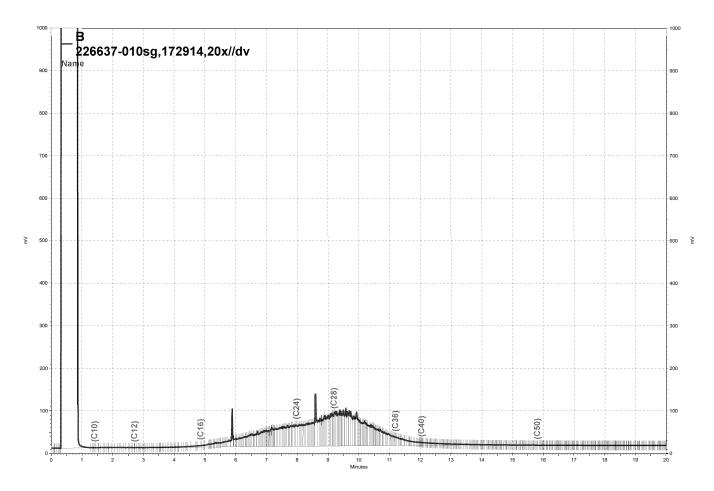
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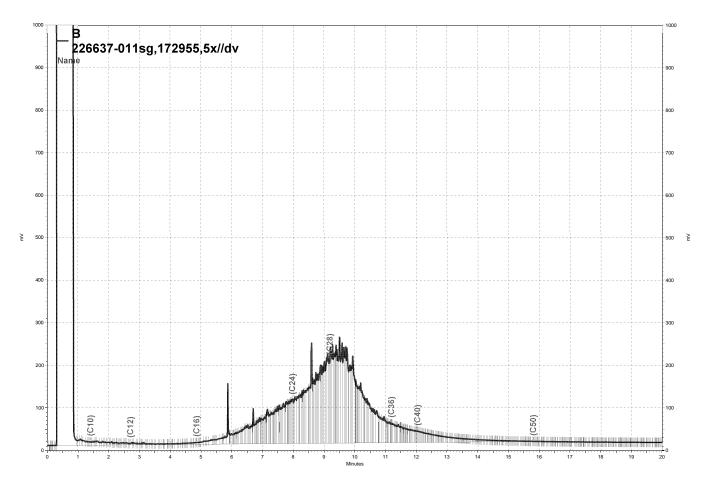
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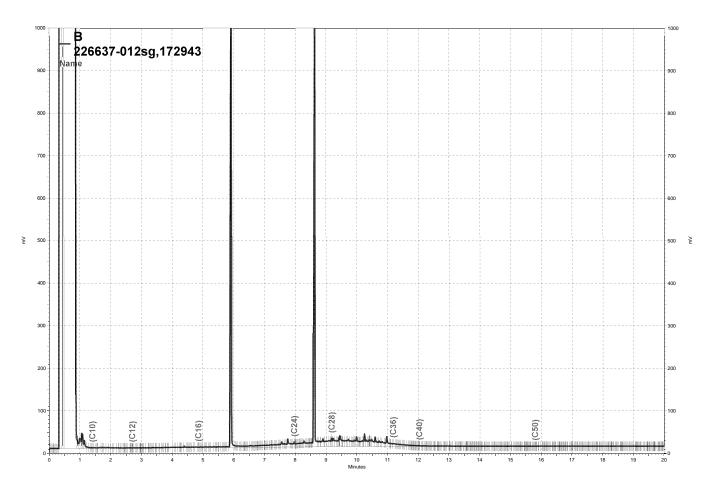
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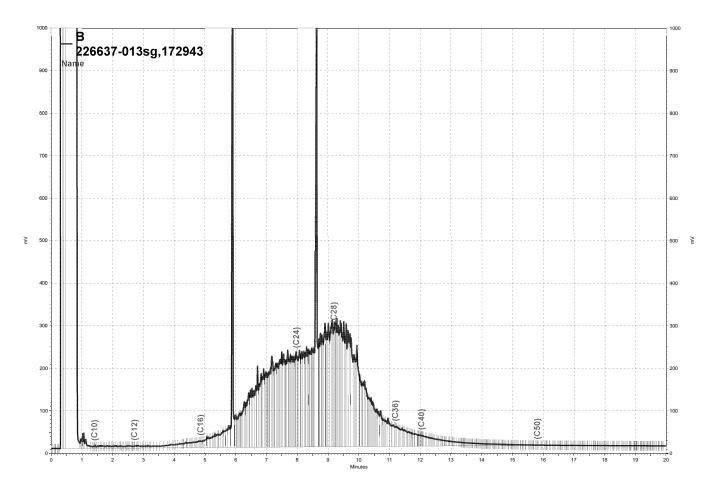
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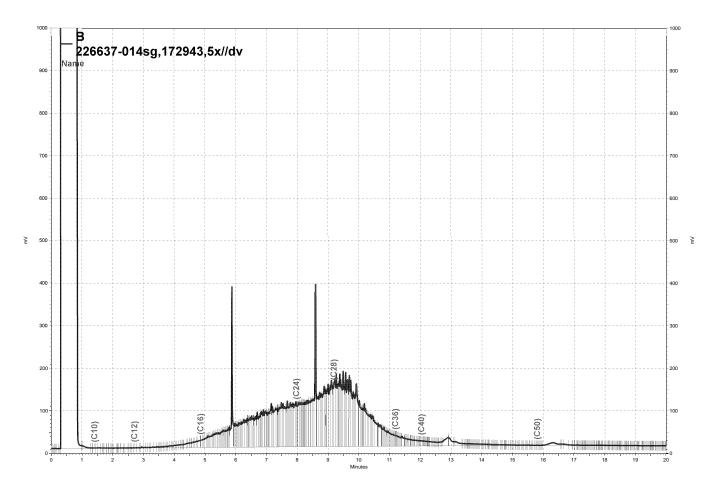
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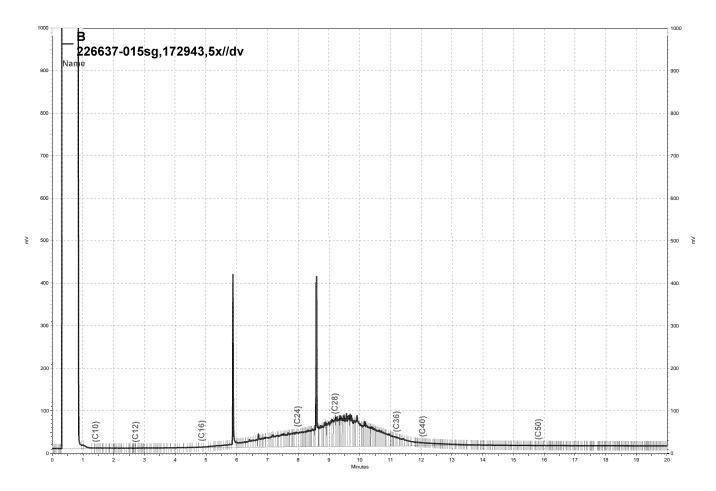
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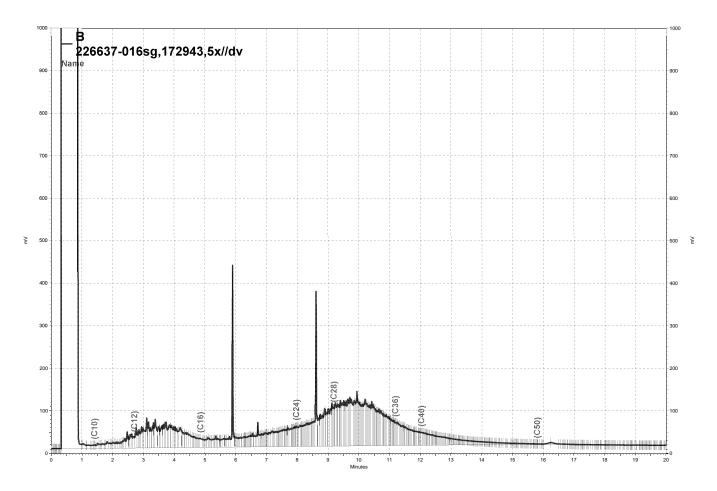
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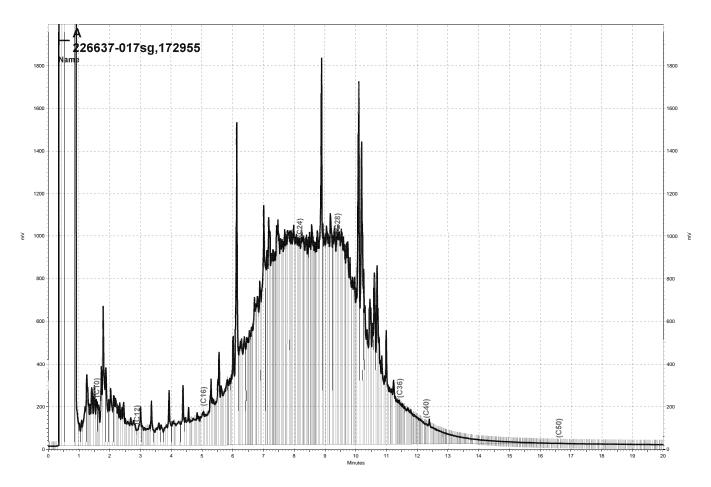
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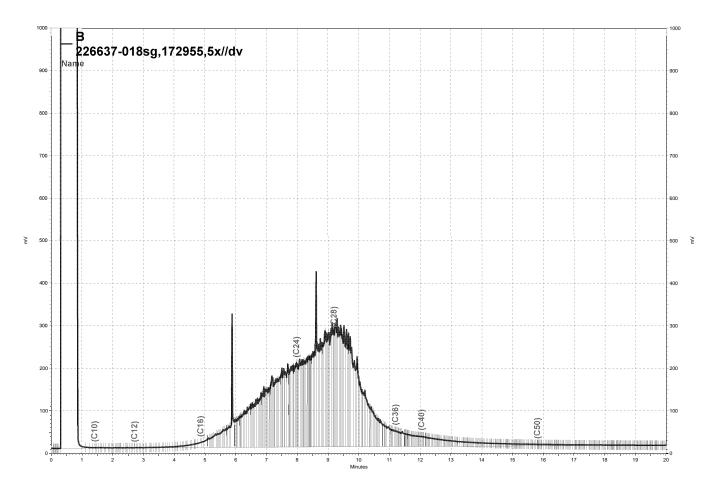
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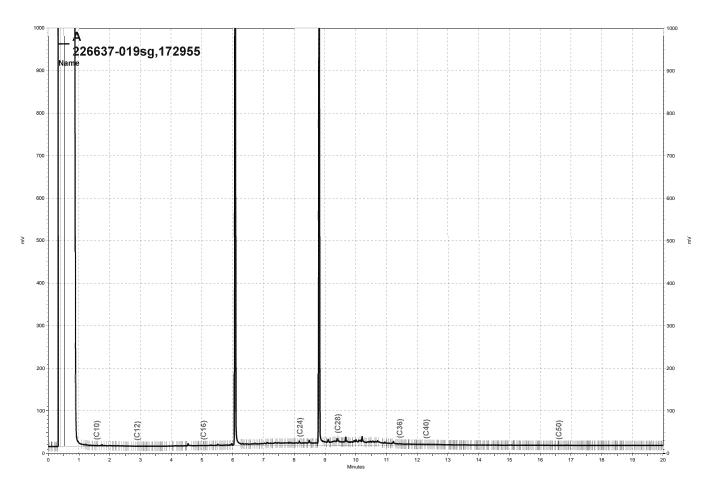
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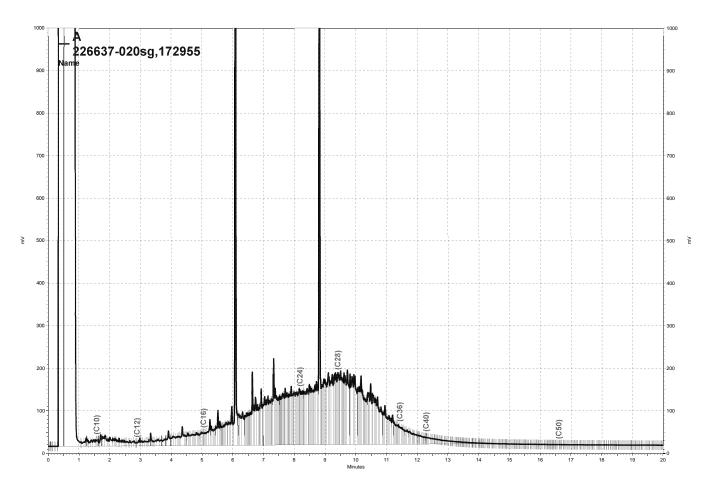
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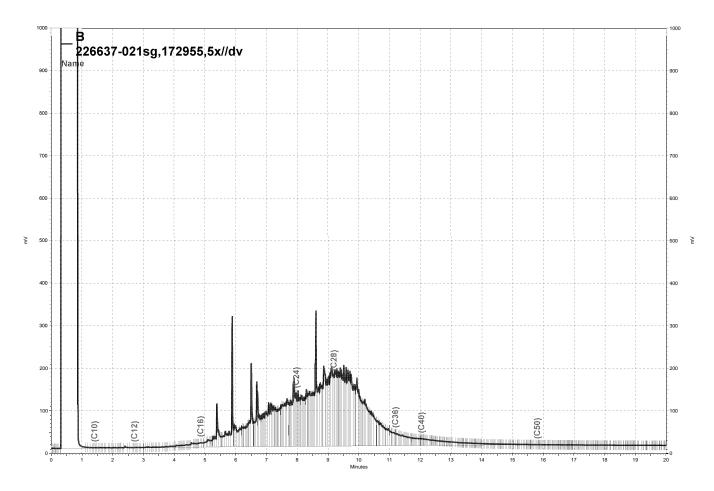
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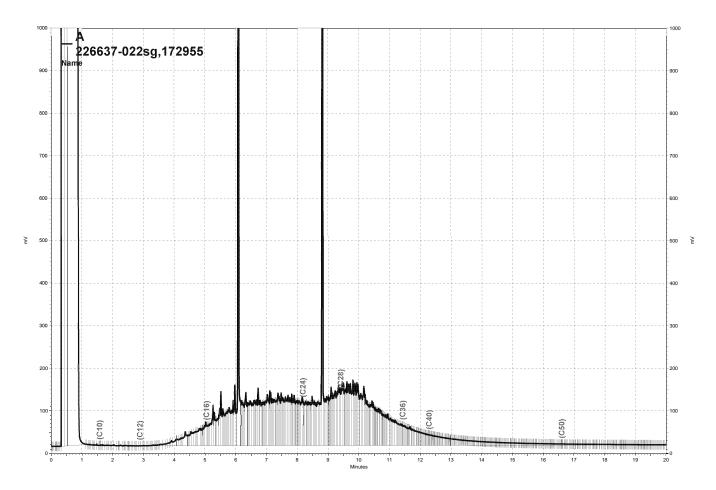
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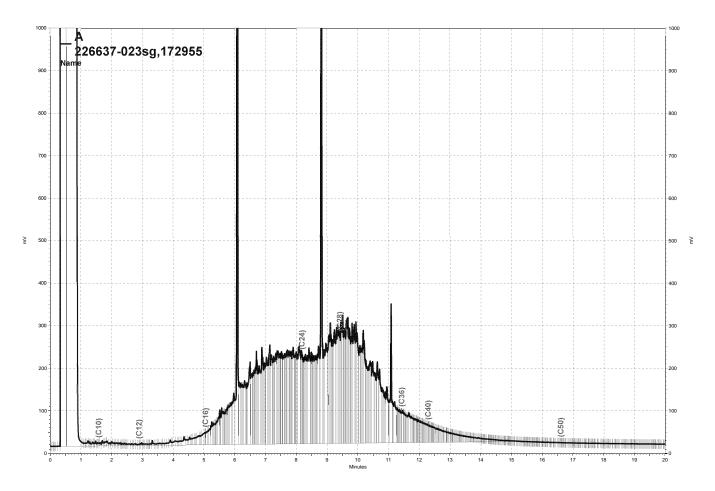
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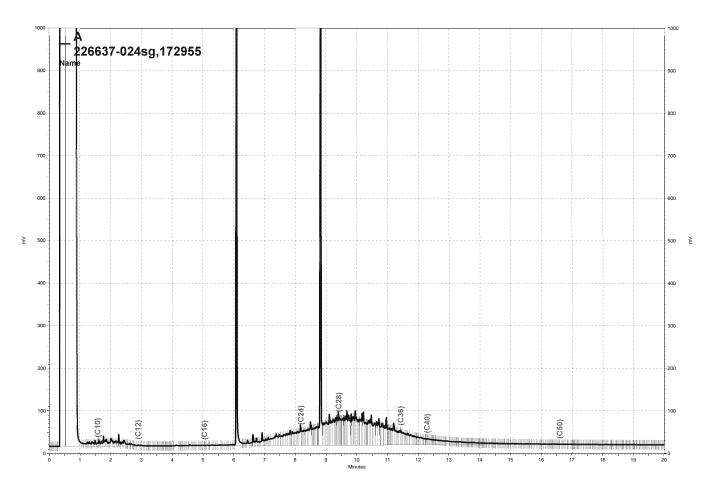
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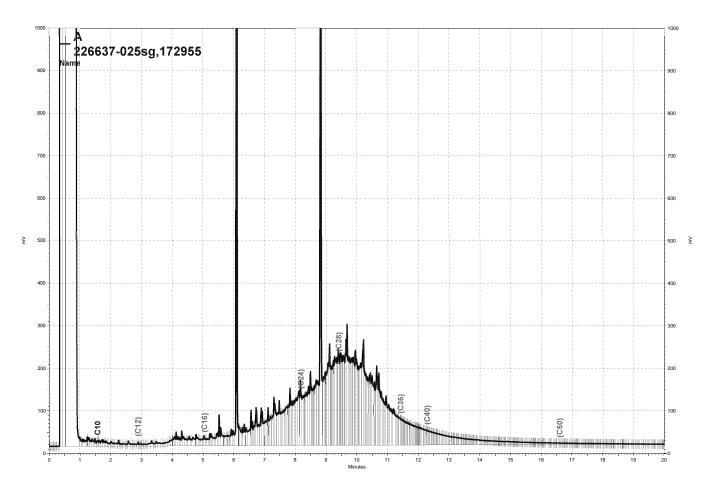
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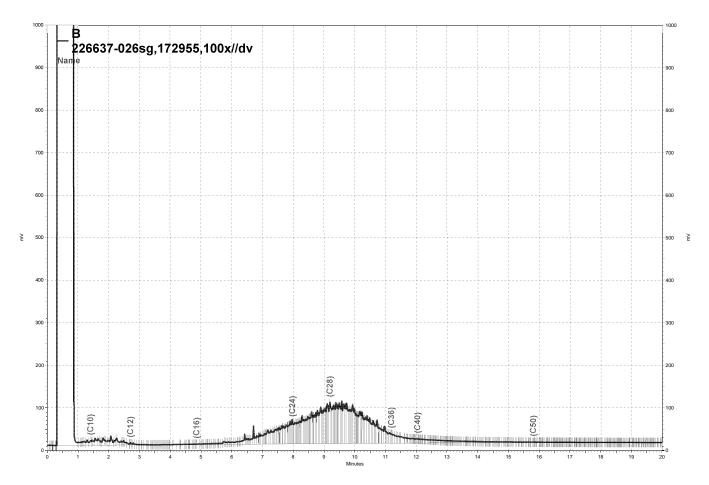
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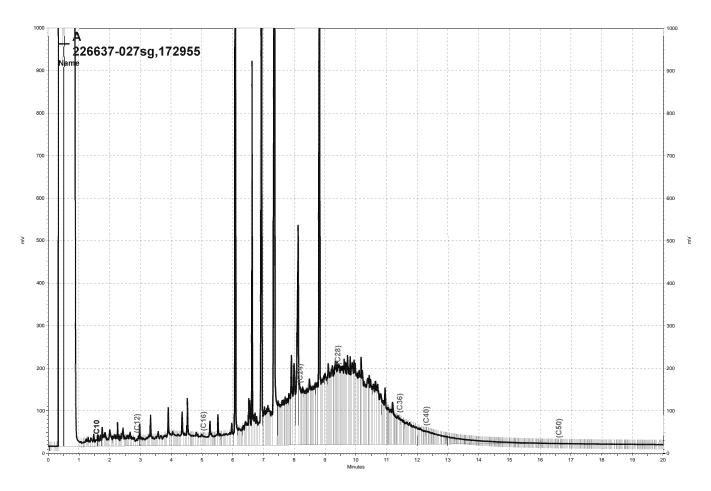
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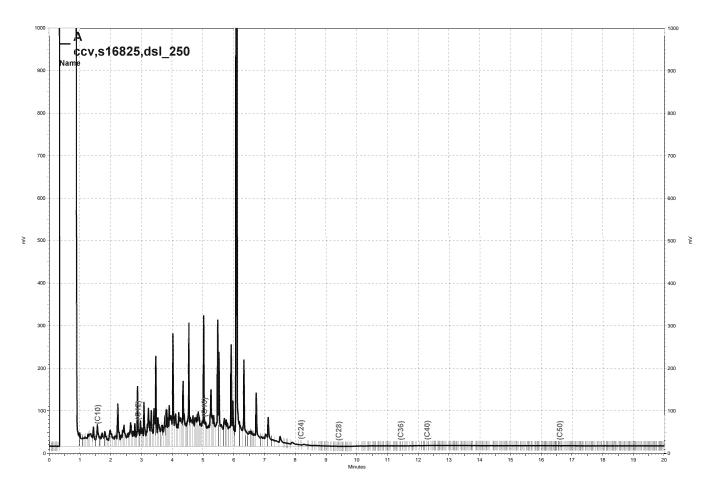
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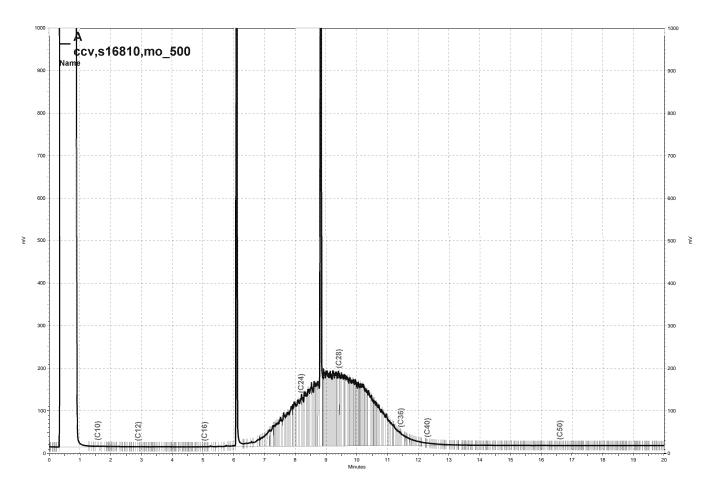
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	Purgeable On	rganics by GC/	MS
Lab #:	226637	Location: 64t	h & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-15-12.5	Diln Fac:	0.8039
Lab ID:	226637-006	Batch#:	172815
Matrix:	Soil	Sampled:	03/15/11
Units:	ug/Kg	Received:	03/15/11
Basis:	as received	Analyzed:	03/16/11

Analyte	Result	RL	
Freon 12	ND	8.0	
Chloromethane	ND	8.0	
Vinyl Chloride	ND	8.0	
Bromomethane	ND	8.0	
Chloroethane	ND	8.0	
Trichlorofluoromethane	ND	4.0	
Acetone	ND	16	
Freon 113	ND	4.0	
1,1-Dichloroethene	ND	4.0	
Methylene Chloride	ND	16	
Carbon Disulfide	ND	4.0	
MTBE	ND	4.0	
trans-1,2-Dichloroethene	ND	4.0	
Vinyl Acetate	ND	40	
1,1-Dichloroethane	ND	4.0	
2-Butanone	ND	8.0	
cis-1,2-Dichloroethene	ND	4.0	
2,2-Dichloropropane	ND	4.0	
Chloroform	ND	4.0	
Bromochloromethane	ND	4.0	
1,1,1-Trichloroethane	ND	4.0	
1,1-Dichloropropene	ND	4.0	
Carbon Tetrachloride	ND	4.0	
1,2-Dichloroethane	ND	4.0	
Benzene	ND	4.0	
Trichloroethene	ND	4.0	
1,2-Dichloropropane	ND	4.0	
Bromodichloromethane	ND	4.0	
Dibromomethane	ND	4.0	
4-Methyl-2-Pentanone	ND	8.0	
cis-1,3-Dichloropropene	ND	4.0	
Toluene	ND	4.0	
trans-1,3-Dichloropropene	ND	4.0	
1,1,2-Trichloroethane	ND	4.0	
2-Hexanone	ND	8.0	
1,3-Dichloropropane	ND	4.0	
Tetrachloroethene	ND	4.0	

RL= Reporting Limit



	Purgeable O	rganics by GC/M	is
Lab #:	226637	Location: 64th	& Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA !	5035
Project#:	241.082.02.001	Analysis: EPA 8	8260B
Field ID:	SB-15-12.5	Diln Fac:	0.8039
Lab ID:	226637-006	Batch#:	172815
Matrix:	Soil	Sampled:	03/15/11
Units:	ug/Kg	Received:	03/15/11
Basis:	as received	Analyzed:	03/16/11

Analyte	Result	RL	
Dibromochloromethane	ND	4.0	
1,2-Dibromoethane	ND	4.0	
Chlorobenzene	ND	4.0	
1,1,1,2-Tetrachloroethane	ND	4.0	
Ethylbenzene	ND	4.0	
m,p-Xylenes	ND	4.0	
o-Xylene	ND	4.0	
Styrene	ND	4.0	
Bromoform	ND	4.0	
Isopropylbenzene	ND	4.0	
1,1,2,2-Tetrachloroethane	ND	4.0	
1,2,3-Trichloropropane	ND	4.0	
Propylbenzene	ND	4.0	
Bromobenzene	ND	4.0	
1,3,5-Trimethylbenzene	ND	4.0	
2-Chlorotoluene	ND	4.0	
4-Chlorotoluene	ND	4.0	
tert-Butylbenzene	ND	4.0	
1,2,4-Trimethylbenzene	ND	4.0	
sec-Butylbenzene	ND	4.0	
para-Isopropyl Toluene	ND	4.0	
1,3-Dichlorobenzene	ND	4.0	
1,4-Dichlorobenzene	ND	4.0	
n-Butylbenzene	ND	4.0	
1,2-Dichlorobenzene	ND	4.0	
1,2-Dibromo-3-Chloropropane	ND	4.0	
1,2,4-Trichlorobenzene	ND	4.0	
Hexachlorobutadiene	ND	4.0	
Naphthalene	ND	4.0	
1,2,3-Trichlorobenzene	ND	4.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	91	79-120	
1,2-Dichloroethane-d4	83	72-148	
Toluene-d8	106	80-120	
Bromofluorobenzene	115	78-130	

RL= Reporting Limit



Purgeable Organics by GC/MS				
Lab #:	226637	Location: 64th & Chris	stie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 5035		
Project#:	241.082.02.001	Analysis: EPA 8260B		
Field ID:	SB-40-7.5	Diln Fac: 0.796	52	
Lab ID:	226637-008	Batch#: 17283	L5	
Matrix:	Soil	Sampled: 03/15	5/11	
Units:	ug/Kg	Received: 03/15	5/11	
Basis:	as received	Analyzed: 03/16	5/11	

Analyte	Result	RL	
Freon 12	ND	8.0	
Chloromethane	ND	8.0	
Vinyl Chloride	ND	8.0	
Bromomethane	ND	8.0	
Chloroethane	ND	8.0	
Trichlorofluoromethane	ND	4.0	
Acetone	ND	16	
Freon 113	ND	4.0	
1,1-Dichloroethene	ND	4.0	
Methylene Chloride	ND	16	
Carbon Disulfide	ND	4.0	
MTBE	ND	4.0	
trans-1,2-Dichloroethene	ND	4.0	
Vinyl Acetate	ND	40	
1,1-Dichloroethane	ND	4.0	
2-Butanone	ND	8.0	
cis-1,2-Dichloroethene	ND	4.0	
2,2-Dichloropropane	ND	4.0	
Chloroform	ND	4.0	
Bromochloromethane	ND	4.0	
1,1,1-Trichloroethane	ND	4.0	
1,1-Dichloropropene	ND	4.0	
Carbon Tetrachloride	ND	4.0	
1,2-Dichloroethane	ND	4.0	
Benzene	ND	4.0	
Trichloroethene	ND	4.0	
1,2-Dichloropropane	ND	4.0	
Bromodichloromethane	ND	4.0	
Dibromomethane	ND	4.0	
4-Methyl-2-Pentanone	ND	8.0	
cis-1,3-Dichloropropene	ND	4.0	
Toluene	ND	4.0	
trans-1,3-Dichloropropene	ND	4.0	
1,1,2-Trichloroethane	ND	4.0	
2-Hexanone	ND	8.0	
1,3-Dichloropropane	ND	4.0	
Tetrachloroethene	ND	4.0	

ND= Not Detected RL= Reporting Limit



	Purgeable On	rganics by GC/	MS
Lab #:	226637	Location: 64t	h & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-40-7.5	Diln Fac:	0.7962
Lab ID:	226637-008	Batch#:	172815
Matrix:	Soil	Sampled:	03/15/11
Units:	ug/Kg	Received:	03/15/11
Basis:	as received	Analyzed:	03/16/11

Analyte	Result	RL	
Dibromochloromethane	ND	4.0	
1,2-Dibromoethane	ND	4.0	
Chlorobenzene	ND	4.0	
1,1,1,2-Tetrachloroethane	ND	4.0	
Ethylbenzene	ND	4.0	
m,p-Xylenes	ND	4.0	
o-Xylene	ND	4.0	
Styrene	ND	4.0	
Bromoform	ND	4.0	
Isopropylbenzene	ND	4.0	
1,1,2,2-Tetrachloroethane	ND	4.0	
1,2,3-Trichloropropane	ND	4.0	
Propylbenzene	ND	4.0	
Bromobenzene	ND	4.0	
1,3,5-Trimethylbenzene	ND	4.0	
2-Chlorotoluene	ND	4.0	
4-Chlorotoluene	ND	4.0	
tert-Butylbenzene	ND	4.0	
1,2,4-Trimethylbenzene	ND	4.0	
sec-Butylbenzene	ND	4.0	
para-Isopropyl Toluene	ND	4.0	
1,3-Dichlorobenzene	ND	4.0	
1,4-Dichlorobenzene	ND	4.0	
n-Butylbenzene	ND	4.0	
1,2-Dichlorobenzene	ND	4.0	
1,2-Dibromo-3-Chloropropane	ND	4.0	
1,2,4-Trichlorobenzene	ND	4.0	
Hexachlorobutadiene	ND	4.0	
Naphthalene	ND	4.0	
1,2,3-Trichlorobenzene	ND	4.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	97	79-120	
1,2-Dichloroethane-d4	89	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	96	78-130	

RL= Reporting Limit



Purgeable Organics by GC/MS				
Lab #:	226637	Location: 64th & Christie Emeryvil	le, CA	
Client:	PES Environmental, Inc.	Prep: EPA 5035		
Project#:	241.082.02.001	Analysis: EPA 8260B		
Field ID:	SB-36-6.5	Diln Fac: 0.9416		
Lab ID:	226637-016	Batch#: 172815		
Matrix:	Soil	Sampled: 03/15/11		
Units:	ug/Kg	Received: 03/15/11		
Basis:	as received	Analyzed: 03/16/11		

Analyte	Result	RL	
Freon 12	ND	9.4	
Chloromethane	ND	9.4	
Vinyl Chloride	ND	9.4	
Bromomethane	ND	9.4	
Chloroethane	ND	9.4	
Trichlorofluoromethane	ND	4.7	
Acetone	ND	19	
Freon 113	ND	4.7	
1,1-Dichloroethene	ND	4.7	
Methylene Chloride	ND	19	
Carbon Disulfide	ND	4.7	
MTBE	ND	4.7	
trans-1,2-Dichloroethene	ND	4.7	
Vinyl Acetate	ND	47	
1,1-Dichloroethane	ND	4.7	
2-Butanone	ND	9.4	
cis-1,2-Dichloroethene	ND	4.7	
2,2-Dichloropropane	ND	4.7	
Chloroform	ND	4.7	
Bromochloromethane	ND	4.7	
1,1,1-Trichloroethane	ND	4.7	
1,1-Dichloropropene	ND	4.7	
Carbon Tetrachloride	ND	4.7	
1,2-Dichloroethane	ND	4.7	
Benzene	ND	4.7	
Trichloroethene	ND	4.7	
1,2-Dichloropropane	ND	4.7	
Bromodichloromethane	ND	4.7	
Dibromomethane	ND	4.7	
4-Methyl-2-Pentanone	ND	9.4	
cis-1,3-Dichloropropene	ND	4.7	
Toluene	ND	4.7	
trans-1,3-Dichloropropene	ND	4.7	
1,1,2-Trichloroethane	ND	4.7	
2-Hexanone	ND	9.4	
1,3-Dichloropropane	ND	4.7	
Tetrachloroethene	ND	4.7	

ND= Not Detected RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	226637	Location: 64tl	h & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA	5035		
Project#:	241.082.02.001	Analysis: EPA	8260B		
Field ID:	SB-36-6.5	Diln Fac:	0.9416		
Lab ID:	226637-016	Batch#:	172815		
Matrix:	Soil	Sampled:	03/15/11		
Units:	ug/Kg	Received:	03/15/11		
Basis:	as received	Analyzed:	03/16/11		

Analyte	Result	RL	
Dibromochloromethane	ND	4.7	
1,2-Dibromoethane	ND	4.7	
Chlorobenzene	ND	4.7	
1,1,1,2-Tetrachloroethane	ND	4.7	
Ethylbenzene	ND	4.7	
m,p-Xylenes	ND	4.7	
o-Xylene	ND	4.7	
Styrene	ND	4.7	
Bromoform	ND	4.7	
Isopropylbenzene	ND	4.7	
1,1,2,2-Tetrachloroethane	ND	4.7	
1,2,3-Trichloropropane	ND	4.7	
Propylbenzene	ND	4.7	
Bromobenzene	ND	4.7	
1,3,5-Trimethylbenzene	ND	4.7	
2-Chlorotoluene	ND	4.7	
4-Chlorotoluene	ND	4.7	
tert-Butylbenzene	ND	4.7	
1,2,4-Trimethylbenzene	ND	4.7	
sec-Butylbenzene	ND	4.7	
para-Isopropyl Toluene	ND	4.7	
1,3-Dichlorobenzene	ND	4.7	
1,4-Dichlorobenzene	ND	4.7	
n-Butylbenzene	ND	4.7	
1,2-Dichlorobenzene	ND	4.7	
1,2-Dibromo-3-Chloropropane	ND	4.7	
1,2,4-Trichlorobenzene	ND	4.7	
Hexachlorobutadiene	ND	4.7	
Naphthalene	ND	4.7	
1,2,3-Trichlorobenzene	ND	4.7	

Surrogate	%REC	Limits	
Dibromofluoromethane	87	79-120	
1,2-Dichloroethane-d4	85	72-148	
Toluene-d8	101	80-120	
Bromofluorobenzene	105	78-130	

RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	226637	Location: 64t	h & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA	5035		
Project#:	241.082.02.001	Analysis: EPA	8260B		
Field ID:	SB-38-12.5	Diln Fac:	0.7911		
Lab ID:	226637-027	Batch#:	172815		
Matrix:	Soil	Sampled:	03/15/11		
Units:	ug/Kg	Received:	03/15/11		
Basis:	as received	Analyzed:	03/16/11		

Analyte	Result	RL	
Freon 12	ND ND	7.9	
Chloromethane	ND	7.9	
Vinyl Chloride	ND	7.9	
Bromomethane	ND	7.9	
Chloroethane	ND	7.9	
Trichlorofluoromethane	ND	4.0	
Acetone	ND	16	
Freon 113	ND	4.0	
1,1-Dichloroethene	ND	4.0	
Methylene Chloride	ND	16	
Carbon Disulfide	ND	4.0	
MTBE	ND	4.0	
trans-1,2-Dichloroethene	ND	4.0	
Vinyl Acetate	ND	40	
1,1-Dichloroethane	ND	4.0	
2-Butanone	ND	7.9	
cis-1,2-Dichloroethene	ND	4.0	
2,2-Dichloropropane	ND	4.0	
Chloroform	ND	4.0	
Bromochloromethane	ND	4.0	
1,1,1-Trichloroethane	ND	4.0	
1,1-Dichloropropene	ND	4.0	
Carbon Tetrachloride	ND	4.0	
1,2-Dichloroethane	ND	4.0	
Benzene	ND	4.0	
Trichloroethene	ND	4.0	
1,2-Dichloropropane	ND	4.0	
Bromodichloromethane	ND	4.0	
Dibromomethane	ND	4.0	
4-Methyl-2-Pentanone	ND	7.9	
cis-1,3-Dichloropropene	ND	4.0	
Toluene	ND	4.0	
trans-1,3-Dichloropropene	ND	4.0	
1,1,2-Trichloroethane	ND	4.0	
2-Hexanone	ND	7.9	
1,3-Dichloropropane	ND	4.0	
Tetrachloroethene	ND	4.0	

RL= Reporting Limit



Purgeable Organics by GC/MS					
Lab #:	226637	Location: 64t	h & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA	5035		
Project#:	241.082.02.001	Analysis: EPA	8260B		
Field ID:	SB-38-12.5	Diln Fac:	0.7911		
Lab ID:	226637-027	Batch#:	172815		
Matrix:	Soil	Sampled:	03/15/11		
Units:	ug/Kg	Received:	03/15/11		
Basis:	as received	Analyzed:	03/16/11		

Analyte	Res	sult	RL	
Dibromochloromethane	ND		4.0	
1,2-Dibromoethane	ND		4.0	
Chlorobenzene	ND		4.0	
1,1,1,2-Tetrachloroethane	ND		4.0	
Ethylbenzene	ND		4.0	
m,p-Xylenes	ND		4.0	
o-Xylene	ND		4.0	
Styrene	ND		4.0	
Bromoform	ND		4.0	
Isopropylbenzene	ND		4.0	
1,1,2,2-Tetrachloroethane	ND		4.0	
1,2,3-Trichloropropane	ND		4.0	
Propylbenzene	ND		4.0	
Bromobenzene	ND		4.0	
1,3,5-Trimethylbenzene	ND		4.0	
2-Chlorotoluene	ND		4.0	
4-Chlorotoluene	ND		4.0	
tert-Butylbenzene	ND		4.0	
1,2,4-Trimethylbenzene		7.8	4.0	
sec-Butylbenzene	ND		4.0	
para-Isopropyl Toluene	ND		4.0	
1,3-Dichlorobenzene	ND		4.0	
1,4-Dichlorobenzene	ND		4.0	
n-Butylbenzene	ND		4.0	
1,2-Dichlorobenzene	ND		4.0	
1,2-Dibromo-3-Chloropropane	ND		4.0	
1,2,4-Trichlorobenzene	ND		4.0	
Hexachlorobutadiene	ND		4.0	
Naphthalene		5.3	4.0	
1,2,3-Trichlorobenzene	ND		4.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	89	79-120	
1,2-Dichloroethane-d4	76	72-148	
Toluene-d8	97	80-120	
Bromofluorobenzene	92	78-130	

RL= Reporting Limit



Batch QC Report

Purgeable Organics by GC/MS				
Lab #:	226637	Location:	64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep:	EPA 5035	
Project#:	241.082.02.001	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC583978	Batch#:	172815	
Matrix:	Soil	Analyzed:	03/16/11	
Units:	ug/Kg			

Analyte	Result	RL	
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.0	
Acetone	ND	20	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	

ND= Not Detected

RL= Reporting Limit



Batch QC Report

Purgeable Organics by GC/MS					
Lab #:	226637	Location:	64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep:	EPA 5035		
Project#:	241.082.02.001	Analysis:	EPA 8260B		
Type:	BLANK	Diln Fac:	1.000		
Lab ID:	QC583978	Batch#:	172815		
Matrix:	Soil	Analyzed:	03/16/11		
Units:	ug/Kg				

Analyte	Result	RL	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Styrene	ND	5.0	
Bromoform	ND	5.0	
Isopropylbenzene	ND	5.0	
1,1,2,2-Tetrachloroethane	ND	5.0	
1,2,3-Trichloropropane	ND	5.0	
Propylbenzene	ND	5.0	
Bromobenzene	ND	5.0	
1,3,5-Trimethylbenzene	ND	5.0	
2-Chlorotoluene	ND	5.0	
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	93	79-120	
1,2-Dichloroethane-d4	90	72-148	
Toluene-d8	97	80-120	
Bromofluorobenzene	89	78-130	

ND= Not Detected

RL= Reporting Limit



Batch QC Report

Purgeable Organics by GC/MS				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 5035		
Project#:	241.082.02.001	Analysis: EPA 8260B		
Matrix:	Soil	Batch#: 172815		
Units:	ug/Kg	Analyzed: 03/16/11		
Diln Fac:	1.000			

Type: BS Lab ID: QC583979

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	18.17	91	68-134
Benzene	20.00	20.40	102	80-128
Trichloroethene	20.00	19.71	99	75-130
Toluene	20.00	19.23	96	80-130
Chlorobenzene	20.00	20.62	103	80-126

Surrogate	%REC	Limits	
Dibromofluoromethane	90	79-120	
1,2-Dichloroethane-d4	91	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	88	78-130	

Type: BSD Lab ID: QC583980

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	19.24	96	68-134	6	27
Benzene	20.00	19.39	97	80-128	5	20
Trichloroethene	20.00	19.59	98	75-130	1	20
Toluene	20.00	20.39	102	80-130	6	20
Chlorobenzene	20.00	19.64	98	80-126	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	95	79-120
1,2-Dichloroethane-d4	84	72-148
Toluene-d8	97	80-120
Bromofluorobenzene	89	78-130



Semivolatile Organics by GC/MS			
Lab #:	226637	Location: 64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3550B	
Project#:	241.082.02.001	Analysis: EPA 8270C	
Field ID:	SB-15-12.5	Batch#: 172878	
Lab ID:	226637-006	Sampled: 03/15/11	
Matrix:	Soil	Received: 03/15/11	
Units:	ug/Kg	Prepared: 03/17/11	
Basis:	as received	Analyzed: 03/17/11	
Diln Fac:	10.00	-	

Analyte	Result	RL	
N-Nitrosodimethylamine	ND	3,300	
Phenol	ND	3,300	
bis(2-Chloroethyl)ether	ND	3,300	
2-Chlorophenol	ND	3,300	
1,3-Dichlorobenzene	ND	3,300	
1,4-Dichlorobenzene	ND	3,300	
Benzyl alcohol	ND	3,300	
1,2-Dichlorobenzene	ND ND	3,300	
2-Methylphenol	ND ND		
		3,300	
bis(2-Chloroisopropyl) ether	ND	3,300	
4-Methylphenol	ND	3,300	
N-Nitroso-di-n-propylamine	ND	3,300	
Hexachloroethane	ND	3,300	
Nitrobenzene	ND	3,300	
Isophorone	ND	3,300	
2-Nitrophenol	ND	6,600	
2,4-Dimethylphenol	ND	3,300	
Benzoic acid	ND	17,000	
bis(2-Chloroethoxy)methane	ND	3,300	
2,4-Dichlorophenol	ND	3,300	
1,2,4-Trichlorobenzene	ND	3,300	
Naphthalene	ND	660	
4-Chloroaniline	ND	3,300	
Hexachlorobutadiene	ND	3,300	
4-Chloro-3-methylphenol	ND	3,300	
2-Methylnaphthalene	ND	660	
Hexachlorocyclopentadiene	ND	6,600	
2,4,6-Trichlorophenol	ND ND	3,300	
2,4,5-Trichlorophenol	ND ND	3,300	
2-Chloronaphthalene	ND	3,300	
2-Nitroaniline	ND	6,600	
Dimethylphthalate	ND	3,300	
Acenaphthylene	ND	660	
2,6-Dinitrotoluene	ND	3,300	
3-Nitroaniline	ND	6,600	
Acenaphthene	ND	660	
2,4-Dinitrophenol	ND	6,600	
4-Nitrophenol	ND	6,600	
Dibenzofuran	ND	3,300	
2,4-Dinitrotoluene	ND	3,300	
Diethylphthalate	ND	3,300	
Fluorene	ND	660	
4-Chlorophenyl-phenylether	ND	3,300	
4-Nitroaniline	ND	6,600	
4,6-Dinitro-2-methylphenol	ND	6,600	
N-Nitrosodiphenylamine	ND	3,300	
Azobenzene	ND	3,300	
4-Bromophenyl-phenylether	ND	3,300	
Hexachlorobenzene	ND ND	3,300	
Pentachlorophenol	ND	6,600	
Phenanthrene	ND	660	
Anthracene	ND	660	

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 1 of 2

53.1



Semivolatile Organics by GC/MS			
Lab #:	226637	Location: 64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3550B	
Project#:	241.082.02.001	Analysis: EPA 8270C	
Field ID:	SB-15-12.5	Batch#: 172878	
Lab ID:	226637-006	Sampled: 03/15/11	
Matrix:	Soil	Received: 03/15/11	
Units:	ug/Kg	Prepared: 03/17/11	
Basis:	as received	Analyzed: 03/17/11	
Diln Fac:	10.00		

Analyte	Result	RL	
Di-n-butylphthalate	ND	3,300	
Fluoranthene	710	660	
Pyrene	910	660	
Butylbenzylphthalate	ND	3,300	
3,3'-Dichlorobenzidine	ND	6,600	
Benzo(a)anthracene	ND	660	
Chrysene	ND	660	
bis(2-Ethylhexyl)phthalate	ND	3,300	
Di-n-octylphthalate	ND	3,300	
Benzo(b)fluoranthene	ND	660	
Benzo(k)fluoranthene	ND	660	
Benzo(a)pyrene	ND	660	
Indeno(1,2,3-cd)pyrene	ND	660	
Dibenz(a,h)anthracene	ND	660	
Benzo(g,h,i)perylene	ND	660	

Surrogate	%REC	Limits
2-Fluorophenol	DO	35-120
Phenol-d5	DO	33-120
2,4,6-Tribromophenol	DO	30-120
Nitrobenzene-d5	DO	43-120
2-Fluorobiphenyl	DO	47-120
Terphenvl-d14	DO	40-120

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS			
Lab #:	226637	Location: 64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3550B	
Project#:	241.082.02.001	Analysis: EPA 8270C	
Field ID:	SB-40-7.5	Batch#: 172878	
Lab ID:	226637-008	Sampled: 03/15/11	
Matrix:	Soil	Received: 03/15/11	
Units:	ug/Kg	Prepared: 03/17/11	
Basis:	as received	Analyzed: 03/17/11	
Diln Fac:	1.000	-	

Analyte	Result	RL	
N-Nitrosodimethylamine	ND	330	
Phenol	ND	330	
bis(2-Chloroethyl)ether	ND	330	
2-Chlorophenol	ND	330	
1,3-Dichlorobenzene	ND	330	
1,4-Dichlorobenzene	ND	330	
Benzyl alcohol	ND	330	
1,2-Dichlorobenzene	ND	330	
2-Methylphenol	ND	330	
bis(2-Chloroisopropyl) ether	ND	330	
4-Methylphenol	ND	330	
N-Nitroso-di-n-propylamine	ND	330	
Hexachloroethane	ND	330	
Nitrobenzene	ND	330	
Isophorone	ND	330	
2-Nitrophenol	ND	660	
2,4-Dimethylphenol	ND	330	
Benzoic acid	ND	1,700	
bis(2-Chloroethoxy)methane	ND	330	
2,4-Dichlorophenol	ND	330	
1,2,4-Trichlorobenzene	ND	330	
Naphthalene	ND	66	
4-Chloroaniline	ND	330	
Hexachlorobutadiene	ND	330	
4-Chloro-3-methylphenol	ND	330	
2-Methylnaphthalene	ND	66	
Hexachlorocyclopentadiene	ND	660	
2,4,6-Trichlorophenol	ND	330	
2,4,5-Trichlorophenol	ND	330	
2-Chloronaphthalene	ND	330	
2-Nitroaniline	ND	660	
Dimethylphthalate	ND	330	
Acenaphthylene	ND	66	
2,6-Dinitrotoluene	ND	330	
3-Nitroaniline	ND	660	
Acenaphthene	ND	66	
2,4-Dinitrophenol	ND	660	
4-Nitrophenol	ND	660	
Dibenzofuran	ND	330	
2,4-Dinitrotoluene	ND	330	
Diethylphthalate	ND	330	
Fluorene	ND	66	
4-Chlorophenyl-phenylether	ND	330	
4-Nitroaniline	ND	660	
4,6-Dinitro-2-methylphenol	ND	660	
N-Nitrosodiphenylamine	ND	330	
Azobenzene	ND	330	
4-Bromophenyl-phenylether	ND	330	
Hexachlorobenzene	ND	330	
Pentachlorophenol	ND	660	
Phenanthrene	ND	66	
Anthracene	ND	66	
Di-n-butylphthalate	ND	330	

ND= Not Detected RL= Reporting Limit Page 1 of 2



Semivolatile Organics by GC/MS				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B		
Project#:	241.082.02.001	Analysis: EPA 8270C		
Field ID:	SB-40-7.5	Batch#: 172878		
Lab ID:	226637-008	Sampled: 03/15/11		
Matrix:	Soil	Received: 03/15/11		
Units:	ug/Kg	Prepared: 03/17/11		
Basis:	as received	Analyzed: 03/17/11		
Diln Fac:	1.000	<u>-</u>		

Analyte	Result	RL	
Fluoranthene	ND	66	
Pyrene	ND	66	
Butylbenzylphthalate	ND	330	
3,3'-Dichlorobenzidine	ND	660	
Benzo(a)anthracene	ND	66	
Chrysene	ND	66	
bis(2-Ethylhexyl)phthalate	ND	330	
Di-n-octylphthalate	ND	330	
Benzo(b)fluoranthene	ND	66	
Benzo(k)fluoranthene	ND	66	
Benzo(a)pyrene	ND	66	
Indeno(1,2,3-cd)pyrene	ND	66	
Dibenz(a,h)anthracene	ND	66	
Benzo(g,h,i)perylene	ND	66	

Surrogate	%REC	Limits
2-Fluorophenol	68	35-120
Phenol-d5	70	33-120
2,4,6-Tribromophenol	77	30-120
Nitrobenzene-d5	59	43-120
2-Fluorobiphenyl	77	47-120
	67	40-120

ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B		
Project#:	241.082.02.001	Analysis: EPA 8270C		
Field ID:	SB-36-6.5	Batch#: 172878		
Lab ID:	226637-016	Sampled: 03/15/11		
Matrix:	Soil	Received: 03/15/11		
Units:	ug/Kg	Prepared: 03/17/11		
Basis:	as received	Analyzed: 03/17/11		
Diln Fac:	5.000	-		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	1,700
Phenol	ND	1,700
bis(2-Chloroethyl)ether	ND	1,700
2-Chlorophenol	ND	1,700
1,3-Dichlorobenzene	ND ND	1,700
1,4-Dichlorobenzene	ND	1,700
Benzyl alcohol	ND	1,700
1,2-Dichlorobenzene	ND ND	1,700
2-Methylphenol	ND ND	1,700
bis(2-Chloroisopropyl) ether	ND ND	1,700
4-Methylphenol	ND	1,700
N-Nitroso-di-n-propylamine	ND	1,700
Hexachloroethane	ND	1,700
Nitrobenzene	ND	1,700
Isophorone	ND	1,700
2-Nitrophenol	ND	3,300
2,4-Dimethylphenol	ND	1,700
Benzoic acid	ND	8,300
bis(2-Chloroethoxy)methane	ND	1,700
2,4-Dichlorophenol	ND	1,700
1,2,4-Trichlorobenzene	ND	1,700
Naphthalene	ND	330
4-Chloroaniline	ND	1,700
Hexachlorobutadiene	ND	1,700
4-Chloro-3-methylphenol	ND	1,700
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	3,300
2,4,6-Trichlorophenol	ND	1,700
2,4,5-Trichlorophenol	ND	1,700
2-Chloronaphthalene	ND	1,700
2-Nitroaniline	ND	3,300
Dimethylphthalate	ND	1,700
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	1,700
3-Nitroaniline	ND	3,300
Acenaphthene	ND	330
2,4-Dinitrophenol	ND	3,300
4-Nitrophenol	ND	3,300
Dibenzofuran	ND	1,700
2,4-Dinitrotoluene	ND	1,700
Diethylphthalate	ND	1,700
Fluorene	ND	330
4-Chlorophenyl-phenylether	ND	1,700
4-Nitroaniline	ND	3,300
4,6-Dinitro-2-methylphenol	ND	3,300
N-Nitrosodiphenylamine	ND ND	1,700
Azobenzene	ND ND	1,700
4-Bromophenyl-phenylether	ND ND	1,700
Hexachlorobenzene	ND ND	1,700
Pentachlorophenol	ND ND	3,300
Phenanthrene	ND ND	330
Anthracene	ND ND	330
	ND ND	1,700
Di-n-butylphthalate	מא	1,/00

ND= Not Detected RL= Reporting Limit



Semivolatile Organics by GC/MS				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B		
Project#:	241.082.02.001	Analysis: EPA 8270C		
Field ID:	SB-36-6.5	Batch#: 172878		
Lab ID:	226637-016	Sampled: 03/15/11		
Matrix:	Soil	Received: 03/15/11		
Units:	ug/Kg	Prepared: 03/17/11		
Basis:	as received	Analyzed: 03/17/11		
Diln Fac:	5.000			

Analyte	Result	RL	
Fluoranthene	ND	330	
Pyrene	ND	330	
Butylbenzylphthalate	ND	1,700	
3,3'-Dichlorobenzidine	ND	3,300	
Benzo(a)anthracene	ND	330	
Chrysene	ND	330	
bis(2-Ethylhexyl)phthalate	ND	1,700	
Di-n-octylphthalate	ND	1,700	
Benzo(b)fluoranthene	ND	330	
Benzo(k)fluoranthene	ND	330	
Benzo(a)pyrene	ND	330	
Indeno(1,2,3-cd)pyrene	ND	330	
Dibenz(a,h)anthracene	ND	330	
Benzo(g,h,i)perylene	ND	330	

Surrogate	%REC	Limits
2-Fluorophenol	59	35-120
Phenol-d5	61	33-120
2,4,6-Tribromophenol	64	30-120
Nitrobenzene-d5	49	43-120
2-Fluorobiphenyl	70	47-120
Terphenyl-d14	66	40-120

ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B		
Project#:	241.082.02.001	Analysis: EPA 8270C		
Field ID:	SB-38-12.5	Batch#: 172878		
Lab ID:	226637-027	Sampled: 03/15/11		
Matrix:	Soil	Received: 03/15/11		
Units:	ug/Kg	Prepared: 03/17/11		
Basis:	as received	Analyzed: 03/17/11		
Diln Fac:	1.000	-		

Analyte	Result	RL	
N-Nitrosodimethylamine	ND	330	
Phenol	ND	330	
bis(2-Chloroethyl)ether	ND	330	
2-Chlorophenol	ND	330	
1,3-Dichlorobenzene	ND	330	
1,4-Dichlorobenzene	ND	330	
Benzyl alcohol	ND	330	
1,2-Dichlorobenzene	ND	330	
2-Methylphenol	ND	330	
bis(2-Chloroisopropyl) ether	ND	330	
4-Methylphenol	ND	330	
N-Nitroso-di-n-propylamine	ND	330	
Hexachloroethane	ND	330	
Nitrobenzene	ND	330	
Isophorone	ND	330	
2-Nitrophenol	ND	660	
2,4-Dimethylphenol	ND	330	
Benzoic acid	ND	1,600	
bis(2-Chloroethoxy)methane	ND	330	
2,4-Dichlorophenol	ND	330	
1,2,4-Trichlorobenzene	ND	330	
Naphthalene	ND	66	
4-Chloroaniline	ND	330	
Hexachlorobutadiene	ND	330	
4-Chloro-3-methylphenol	ND	330	
2-Methylnaphthalene	ND	66	
Hexachlorocyclopentadiene	ND	660	
2,4,6-Trichlorophenol	ND	330	
2,4,5-Trichlorophenol	ND	330	
2-Chloronaphthalene	ND	330	
2-Nitroaniline	ND	660	
Dimethylphthalate	ND	330	
Acenaphthylene	ND	66	
2,6-Dinitrotoluene	ND	330	
3-Nitroaniline	ND	660	
Acenaphthene	ND	66	
2,4-Dinitrophenol	ND	660	
4-Nitrophenol	ND	660	
Dibenzofuran	ND	330	
2,4-Dinitrotoluene	ND	330	
Diethylphthalate	ND	330	
Fluorene	ND	66	
4-Chlorophenyl-phenylether	ND	330	
4-Nitroaniline	ND	660	
4,6-Dinitro-2-methylphenol	ND	660	
N-Nitrosodiphenylamine	ND	330	
Azobenzene	ND	330	
4-Bromophenyl-phenylether	ND	330	
Hexachlorobenzene	ND	330	
Pentachlorophenol	ND	660	
Phenanthrene	ND	66	
Anthracene	ND ND	66	
Di-n-butylphthalate	ND ND	330	
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ND= Not Detected RL= Reporting Limit

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Semivolatile Organics by GC/MS				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B		
Project#:	241.082.02.001	Analysis: EPA 8270C		
Field ID:	SB-38-12.5	Batch#: 172878		
Lab ID:	226637-027	Sampled: 03/15/11		
Matrix:	Soil	Received: 03/15/11		
Units:	ug/Kg	Prepared: 03/17/11		
Basis:	as received	Analyzed: 03/17/11		
Diln Fac:	1.000			

Analyte	Result	RL	
Fluoranthene	ND	66	
Pyrene	ND	66	
Butylbenzylphthalate	ND	330	
3,3'-Dichlorobenzidine	ND	660	
Benzo(a)anthracene	ND	66	
Chrysene	ND	66	
bis(2-Ethylhexyl)phthalate	ND	330	
Di-n-octylphthalate	ND	330	
Benzo(b)fluoranthene	ND	66	
Benzo(k)fluoranthene	ND	66	
Benzo(a)pyrene	ND	66	
Indeno(1,2,3-cd)pyrene	ND	66	
Dibenz(a,h)anthracene	ND	66	
Benzo(g,h,i)perylene	ND	66	

Surrogate	%REC	Limits
2-Fluorophenol	67	35-120
Phenol-d5	70	33-120
2,4,6-Tribromophenol	77	30-120
Nitrobenzene-d5	60	43-120
2-Fluorobiphenyl	76	47-120
Terphenyl-d14	69	40-120

ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS					
Lab #: Client:	226637 PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Type: Lab ID:	BLANK	Diln Fac: 1.000			
	QC584221	Batch#: 172878			
Matrix:	Soil	Prepared: 03/17/11			
Units:	ug/Kg	Analyzed: 03/17/11			

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	660
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	66
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	66
Hexachlorocyclopentadiene	ND	660
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	660
Dimethylphthalate	ND	330
Acenaphthylene	ND	66
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	660
Acenaphthene	ND	66
2,4-Dinitrophenol	ND	660
4-Nitrophenol	ND	660
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	66
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	660
4,6-Dinitro-2-methylphenol	ND	660
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	660
Phenanthrene	ND	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330
Fluoranthene	ND	66

ND= Not Detected RL= Reporting Limit Page 1 of 2



Semivolatile Organics by GC/MS				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B		
Project#:	241.082.02.001	Analysis: EPA 8270C		
Type: Lab ID:	BLANK	Diln Fac: 1.000		
Lab ID:	QC584221	Batch#: 172878		
Matrix:	Soil	Prepared: 03/17/11		
Units:	ug/Kg	Analyzed: 03/17/11		

Analyte	Result	RL	
Pyrene	ND	66	
Butylbenzylphthalate	ND	330	
3,3'-Dichlorobenzidine	ND	660	
Benzo(a)anthracene	ND	66	
Chrysene	ND	66	
bis(2-Ethylhexyl)phthalate	ND	330	
Di-n-octylphthalate	ND	330	
Benzo(b)fluoranthene	ND	66	
Benzo(k)fluoranthene	ND	66	
Benzo(a)pyrene	ND	66	
Indeno(1,2,3-cd)pyrene	ND	66	
Dibenz(a,h)anthracene	ND	66	
Benzo(g,h,i)perylene	ND	66	

Surrogate	%REC	Limits
2-Fluorophenol	93	35-120
Phenol-d5	94	33-120
2,4,6-Tribromophenol	69	30-120
Nitrobenzene-d5	70	43-120
2-Fluorobiphenyl	83	47-120
Terphenyl-d14	78	40-120

ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS					
Lab #:	226637	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Type:	LCS	Diln Fac: 1.000			
Lab ID:	QC584222	Batch#: 172878			
Matrix:	Soil	Prepared: 03/17/11			
Units:	ug/Kg	Analyzed: 03/17/11			

Analyte	Spiked	Result	%REC	Limits
Phenol	2,665	2,184	82	39-120
2-Chlorophenol	2,665	2,258	85	44-120
1,4-Dichlorobenzene	2,665	2,091	78	46-120
N-Nitroso-di-n-propylamine	2,665	2,209	83	33-120
1,2,4-Trichlorobenzene	2,665	2,200	83	48-120
4-Chloro-3-methylphenol	2,665	2,099	79	47-120
Acenaphthene	999.3	812.8	81	47-120
4-Nitrophenol	2,665	1,947	73	35-120
2,4-Dinitrotoluene	2,665	2,152	81	46-120
Pentachlorophenol	2,665	2,104	79	25-120
Pyrene	999.3	791.9	79	45-120

Surrogate	%REC	Limits
2-Fluorophenol	84	35-120
Phenol-d5	85	33-120
2,4,6-Tribromophenol	86	30-120
Nitrobenzene-d5	68	43-120
2-Fluorobiphenyl	72	47-120
Terphenyl-d14	68	40-120

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Semivolatile Organics by GC/MS					
Lab #:	226637	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Field ID:	ZZZZZZZZZZ	Batch#: 172878			
MSS Lab ID:	226568-028	Sampled: 03/09/11			
Matrix:	Soil	Received: 03/11/11			
Units:	ug/Kg	Prepared: 03/17/11			
Basis:	as received	Analyzed: 03/17/11			
Diln Fac:	1.000				

Type: MS Lab ID: QC584223

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<14.82	2,649	2,087	79	41-120
2-Chlorophenol	<13.77	2,649	2,137	81	44-120
1,4-Dichlorobenzene	<7.231	2,649	1,923	73	46-120
N-Nitroso-di-n-propylamine	<15.00	2,649	2,123	80	36-120
1,2,4-Trichlorobenzene	<8.374	2,649	2,035	77	48-120
4-Chloro-3-methylphenol	<8.558	2,649	2,007	76	47-120
Acenaphthene	<6.608	993.4	779.0	78	45-120
4-Nitrophenol	<6.996	2,649	1,951	74	35-120
2,4-Dinitrotoluene	<8.230	2,649	2,130	80	44-120
Pentachlorophenol	<101.3	2,649	1,659	63	19-120
Pyrene	<7.224	993.4	777.8	78	41-120

Surrogate	%REC	Limits
2-Fluorophenol	76	35-120
Phenol-d5	80	33-120
2,4,6-Tribromophenol	77	30-120
Nitrobenzene-d5	63	43-120
2-Fluorobiphenyl	68	47-120
Terphenyl-d14	67	40-120

Type: MSD Lab ID: QC584224

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	2,642	2,170	82	41-120	4	45
2-Chlorophenol	2,642	1,934	73	44-120	10	44
1,4-Dichlorobenzene	2,642	1,632	62	46-120	16	41
N-Nitroso-di-n-propylamine	2,642	2,418	92	36-120	13	50
1,2,4-Trichlorobenzene	2,642	1,566	59	48-120	26	39
4-Chloro-3-methylphenol	2,642	1,796	68	47-120	11	40
Acenaphthene	990.8	682.8	69	45-120	13	39
4-Nitrophenol	2,642	1,685	64	35-120	14	57
2,4-Dinitrotoluene	2,642	1,847	70	44-120	14	42
Pentachlorophenol	2,642	1,543	58	19-120	7	66
Pyrene	990.8	668.6	67	41-120	15	52

Surrogate	%REC	Limits
2-Fluorophenol	81	35-120
Phenol-d5	87	33-120
2,4,6-Tribromophenol	70	30-120
Nitrobenzene-d5	55	43-120
2-Fluorobiphenyl	61	47-120
Terphenyl-d14	58	40-120



California Title 22 Metals							
Lab #:	226637	Project#: 241.08	2.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-41-2.5	Basis:	as received				
Lab ID:	226637-001	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	9.1	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Arsenic	5.3	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Barium	300	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Beryllium	0.45	0.10	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cadmium	0.39	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Chromium	46	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cobalt	9.7	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Copper	190	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Lead	200	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Mercury	0.84	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	0.75	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Nickel	52	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Silver	0.39	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Vanadium	36	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Zinc	300	1.0	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226637	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th 8	Christie Emeryville, CA				
Field ID:	SB-41-6.5	Basis:	as received				
Lab ID:	226637-002	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	6.5	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Arsenic	6.4	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Barium	380	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Beryllium	0.59	0.10	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Chromium	33	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cobalt	9.9	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Copper	25	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Lead	29	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Mercury	0.43	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	0.73	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Nickel	35	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Vanadium	34	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Zinc	58	1.0	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226637	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	& Christie Emeryville, CA				
Field ID:	SB-41-12.5	Basis:	as received				
Lab ID:	226637-003	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	8.1	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Arsenic	2.5	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Barium	210	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Beryllium	0.47	0.10	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Chromium	17	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cobalt	7.6	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Copper	17	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Lead	18	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Mercury	0.15	0.021	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	1.2	0.25	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	20	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Vanadium	33	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Zinc	57	1.0	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B

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California Title 22 Metals							
Lab #:	226637	Project#: 241.082.02.001					
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA					
Field ID:	SB-15-2.5	Basis: as received					
Lab ID:	226637-004	Sampled: 03/15/11					
Matrix:	Soil	Received: 03/15/11					
Units:	mg/Kg						

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	15	0.50	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Arsenic	12	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Barium	260	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Beryllium	0.38	0.10	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cadmium	3.8	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Chromium	39	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cobalt	9.9	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Copper	230	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Lead	260	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Mercury	0.34	0.021	1.000	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	1.4	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Nickel	50	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Silver	0.29	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Vanadium	33	0.25	1.000	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Zinc	500	9.3	10.00	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226637	Project#: 241.08	2.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-15-4.5	Basis:	as received				
Lab ID:	226637-005	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	13	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Arsenic	3.8	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Barium	160	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Beryllium	0.21	0.10	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cadmium	1.5	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Chromium	26	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cobalt	5.7	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Copper	120	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Lead	250	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Mercury	0.16	0.021	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	1.1	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Nickel	22	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Silver	0.80	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Vanadium	15	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Zinc	260	1.0	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B

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California Title 22 Metals							
Lab #:	226637	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-15-12.5	Basis:	as received				
Lab ID:	226637-006	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	5.1	0.50	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Arsenic	1.4	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Barium	65	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Beryllium	0.23	0.10	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Chromium	20	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Cobalt	4.8	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Copper	29	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Lead	20	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Mercury	0.081	0.020	172921 03/18/11	03/18/11 METHOD	EPA 7471A
Molybdenum	0.66	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Nickel	25	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Vanadium	17	0.25	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B
Zinc	82	1.0	172903 03/17/11	03/22/11 EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226637	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-40-2.5	Basis:	as received				
Lab ID:	226637-007	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	6.2	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Arsenic	4.9	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Barium	280	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Beryllium	0.49	0.10	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Chromium	28	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Cobalt	7.2	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Copper	26	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Lead	40	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Mercury	0.33	0.020	172921	03/18/11	03/18/11	METHOD	EPA 7471A
Molybdenum	0.61	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Nickel	29	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Vanadium	28	0.25	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B
Zinc	89	1.0	172903	03/17/11	03/22/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226637	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-40-7.5	Basis:	as received				
Lab ID:	226637-008	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	6.6	0.50	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Arsenic	2.2	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Barium	130	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Beryllium	0.53	0.10	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Chromium	49	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Cobalt	11	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Copper	16	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Lead	5.0	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Mercury	0.049	0.020	172975 03/21/11	03/21/11 METHOD	EPA 7471A
Molybdenum	0.42	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Nickel	70	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Vanadium	39	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Zinc	28	1.0	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B

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California Title 22 Metals Project#: 241.082.02.001 Lab #: 226637 Client: PES Environmental, Inc. Location: 64th & Christie Emeryville, CA Field ID: SB-40-12.5 Basis: as received Lab ID: 226637-009 Sampled: 03/15/11 Matrix: Soil Received: 03/15/11 Units: mg/Kg

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.1	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Arsenic	5.9	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	69	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Beryllium	0.29	0.10	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cadmium	0.69	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	36	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	6.2	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	14	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Lead	14	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Mercury	0.14	0.020	1.000	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	0.69	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Nickel	28	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	31	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	840	9.0	10.00	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B

ND= Not Detected RL= Reporting Limit



California Title 22 Metals							
Lab #:	226637	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-14-2.5	Basis:	as received				
Lab ID:	226637-010	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	12	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Arsenic	17	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	270	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Beryllium	0.46	0.10	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cadmium	0.86	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	58	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	13	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	150	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Lead	160	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Mercury	0.40	0.021	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	1.1	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Nickel	57	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	40	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	350	1.0	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226637	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-37-2.5	Basis:	as received				
Lab ID:	226637-011	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	6.6	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Arsenic	4.7	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	210	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Beryllium	0.46	0.10	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	28	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	8.7	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	37	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Lead	72	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Mercury	0.34	0.020	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	0.55	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Nickel	37	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	28	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	190	1.0	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226637	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-37-7.5	Basis:	as received				
Lab ID:	226637-012	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/15/11				
Units:	mg/Kg	Received:	03/15/11				

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	8.4	0.50	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Arsenic	5.6	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Barium	180	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Beryllium	0.59	0.10	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Chromium	39	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Cobalt	11	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Copper	27	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Lead	82	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Mercury	0.071	0.020	172975 03/21/11	03/21/11 METHOD	EPA 7471A
Molybdenum	0.73	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Nickel	41	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Vanadium	50	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Zinc	79	1.0	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B

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California Title 22 Metals								
Lab #:	226637	Project#: 241.082.02.001						
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA						
Field ID:	SB-37-12.5	Basis: as received						
Lab ID:	226637-013	Sampled: 03/15/11						
Matrix:	Soil	Received: 03/15/11						
Units:	mg/Kg							

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	15	0.50	1.000	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	7.0	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	390	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Beryllium	0.27	0.10	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cadmium	1.2	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	59	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	7.5	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	210	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Lead	1,500	2.2	10.00	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Mercury	ND	0.020	1.000	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	2.0	0.25	1.000	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	35	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	42	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	1,300	8.8	10.00	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226637	Project#: 241.082.02.001						
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA						
Field ID:	SB-14-7.5	Basis: as received						
Lab ID:	226637-014	Sampled: 03/15/11						
Matrix:	Soil	Received: 03/15/11						
Units:	mq/Kq							

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	20	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Arsenic	12	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	210	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Beryllium	0.37	0.10	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cadmium	0.83	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	50	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	9.7	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	730	2.4	10.00	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	450	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Mercury	7.3	0.18	10.00	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	1.0	0.25	1.000	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	51	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	0.56	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	35	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	960	9.4	10.00	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals									
Lab #:	226637	Project#: 241.08	32.02.001						
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA						
Field ID:	SB-36-2.5	Basis:	as received						
Lab ID:	226637-015	Diln Fac:	1.000						
Matrix:	Soil	Sampled:	03/15/11						
Units:	mg/Kg	Received:	03/15/11						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	11	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Arsenic	3.6	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	180	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Beryllium	0.46	0.10	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	38	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	13	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	68	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Lead	86	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Mercury	0.28	0.020	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	0.76	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Nickel	42	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	46	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	180	1.0	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B



California Title 22 Metals									
Lab #:	226637	Project#: 241.08	32.02.001						
Client:	PES Environmental, Inc.	Location: 64th 8	Christie Emeryville, CA						
Field ID:	SB-36-6.5	Basis:	as received						
Lab ID:	226637-016	Diln Fac:	1.000						
Matrix:	Soil	Sampled:	03/15/11						
Units:	mg/Kg	Received:	03/15/11						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	8.0	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Arsenic	5.6	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	190	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Beryllium	0.27	0.10	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cadmium	0.39	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	31	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	7.2	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	55	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Lead	88	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Mercury	0.24	0.020	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	0.84	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Nickel	33	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	23	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	240	1.0	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226637	Project#: 241.082.02.001						
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA						
Field ID:	SB-36-12.5	Basis: as received						
Lab ID:	226637-017	Sampled: 03/15/11						
Matrix:	Soil	Received: 03/15/11						
Units:	mg/Kg							

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	15	0.50	1.000	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	24	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	130	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Beryllium	0.30	0.10	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cadmium	6.1	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	64	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	8.5	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	88	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Lead	160	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Mercury	0.76	0.020	1.000	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	2.6	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Nickel	42	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	1.5	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	32	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	2,600	9.2	10.00	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226637	Project#: 241.082.02.001						
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA						
Field ID:	SB-10-2.5	Basis: as received						
Lab ID:	226637-018	Sampled: 03/15/11						
Matrix:	Soil	Received: 03/15/11						
Units:	mg/Kg							

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	13	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Arsenic	19	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	680	2.5	10.00	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.41	0.10	1.000	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	1.0	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	54	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	16	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	430	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Lead	260	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Mercury	0.93	0.021	1.000	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	6.4	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Nickel	69	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	0.47	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	41	0.25	1.000	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	780	9.8	10.00	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226637	Project#: 241.082.02.001				
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA				
Field ID:	SB-10-5.5	Basis: as received				
Lab ID:	226637-019	Diln Fac: 1.000				
Matrix:	Soil	Sampled: 03/15/11				
Units:	mg/Kg	Received: 03/15/11				

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	5.1	0.50	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Arsenic	3.5	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Barium	88	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Beryllium	0.34	0.10	172903 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Chromium	28	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Cobalt	6.8	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Copper	11	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Lead	4.1	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Mercury	0.034	0.021	172975 03/21/11	03/21/11 METHOD	EPA 7471A
Molybdenum	0.63	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Nickel	31	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Vanadium	25	0.25	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B
Zinc	30	1.0	172903 03/17/11	03/23/11 EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226637	Project#: 241.082.02.001				
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA				
Field ID:	SB-10-12.5	Basis: as received				
Lab ID:	226637-020	Diln Fac: 1.000				
Matrix:	Soil	Sampled: 03/15/11				
Units:	mg/Kg	Received: 03/15/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	11	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Arsenic	5.1	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Barium	89	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	172903	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Chromium	73	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Cobalt	11	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Copper	24	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Lead	37	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Mercury	0.21	0.021	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	0.53	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Nickel	61	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Vanadium	53	0.25	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B
Zinc	90	1.0	172903	03/17/11	03/23/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226637	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-13-2.5	Basis:	as received			
Lab ID:	226637-021	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/15/11			
Units:	mg/Kg	Received:	03/15/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	4.2	0.50	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Arsenic	28	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Barium	230	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Beryllium	0.32	0.10	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Cadmium	1.0	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Chromium	34	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Cobalt	9.4	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Copper	190	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Lead	230	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Mercury	0.37	0.020	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	1.1	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Nickel	39	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Silver	0.26	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Vanadium	33	0.25	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B
Zinc	340	1.0	172905	03/17/11	03/18/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226637	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-39-2.5	Basis:	as received			
Lab ID:	226637-022	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/15/11			
Units:	mg/Kg	Received:	03/15/11			

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	3.9	0.50	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Arsenic	12	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Barium	62	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Beryllium	0.27	0.10	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Chromium	21	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Cobalt	7.8	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Copper	13	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Lead	3.1	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Mercury	0.060	0.020	172975 03/21/11	03/21/11 METHOD	EPA 7471A
Molybdenum	1.4	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Nickel	32	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Thallium	1.5	0.50	172905 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Vanadium	24	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Zinc	33	1.0	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226637	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-39-5.0	Basis:	as received			
Lab ID:	226637-023	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/15/11			
Units:	mg/Kg	Received:	03/15/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.1	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	2.6	0.25	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	220	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.53	0.10	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	0.28	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Chromium	38	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cobalt	8.0	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Copper	21	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	19	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Mercury	0.20	0.022	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	0.81	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	37	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	1.4	0.50	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	37	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Zinc	60	1.0	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226637	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-39-12.5	Basis:	as received			
Lab ID:	226637-024	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/15/11			
Units:	mg/Kg	Received:	03/15/11			

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	5.2	0.50	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Arsenic	4.4	0.25	172905 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Barium	130	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Beryllium	0.36	0.10	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Cadmium	0.44	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Chromium	35	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Cobalt	7.2	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Copper	12	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Lead	6.0	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Mercury	0.040	0.020	172975 03/21/11	03/21/11 METHOD	EPA 7471A
Molybdenum	1.0	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Nickel	31	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Vanadium	39	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Zinc	38	1.0	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B



California Title 22 Metals				
Lab #:	226637	Project#: 241.082.02.001		
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA		
Field ID:	SB-38-2.5	Basis: as received		
Lab ID:	226637-025	Sampled: 03/15/11		
Matrix:	Soil	Received: 03/15/11		
Units:	mg/Kg			

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.3	0.50	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	9.8	0.25	1.000	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	310	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.30	0.10	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	0.94	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Chromium	28	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cobalt	6.3	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Copper	67	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	740	2.3	10.00	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.51	0.020	1.000	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	0.98	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	27	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Silver	0.37	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Vanadium	27	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Zinc	420	1.0	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals			
Lab #:	226637	Project#: 241.08	32.02.001
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA
Field ID:	SB-38-7.5	Basis:	as received
Lab ID:	226637-026	Diln Fac:	1.000
Matrix:	Soil	Sampled:	03/15/11
Units:	mg/Kg	Received:	03/15/11

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	26	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	4.5	0.25	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	200	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.30	0.10	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	1.1	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Chromium	38	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cobalt	13	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Copper	44	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	240	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Mercury	ND	0.020	172975	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	2.0	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	43	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Silver	0.30	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Vanadium	37	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Zinc	420	1.0	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals			
Lab #:	226637	Project#: 241.08	32.02.001
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA
Field ID:	SB-38-12.5	Basis:	as received
Lab ID:	226637-027	Diln Fac:	1.000
Matrix:	Soil	Sampled:	03/15/11
Units:	mg/Kg	Received:	03/15/11

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	6.6	0.50	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Arsenic	6.6	0.25	172905 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Barium	110	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Beryllium	0.34	0.10	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Cadmium	3.4	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Chromium	55	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Cobalt	14	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Copper	17	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Lead	9.0	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Mercury	0.040	0.021	172984 03/21/11	03/21/11 METHOD	EPA 7471A
Molybdenum	1.0	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Nickel	54	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Vanadium	47	0.25	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B
Zinc	57	1.0	172905 03/17/11	03/26/11 EPA 3050B	EPA 6010B



California Title 22 Metals			
Lab #:	226637	Location: 64th & Christie E	Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 3050B	
Project#:	241.082.02.001	Analysis: EPA 6010B	
Type:	BLANK	Diln Fac: 1.000	
Lab ID:	QC584324	Batch#: 172903	
Matrix:	Soil	Prepared: 03/17/11	
Units:	mg/Kg	Analyzed: 03/22/11	

Analyte	Result	RL	
Antimony	ND	0.50	
Arsenic	ND	0.25	
Barium	ND	0.25	
Beryllium	ND	0.10	
Cadmium	ND	0.25	
Chromium	ND	0.25	
Cobalt	ND	0.25	
Copper	ND	0.26	
Lead	ND	0.25	
Molybdenum	ND	0.25	
Nickel	ND	0.25	
Selenium	ND	0.50	
Silver	ND	0.25	
Thallium	ND	0.50	
Vanadium	ND	0.25	
Zinc	ND	1.0	

ND= Not Detected RL= Reporting Limit



California Title 22 Metals			
Lab #:	226637	Location: 64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3050B	
Project#:	241.082.02.001	Analysis: EPA 6010B	
Matrix:	Soil	Batch#: 172903	
Units:	mg/Kg	Prepared: 03/17/11	
Diln Fac:	1.000	Analyzed: 03/22/11	

Type: BS Lab ID: QC584325

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	101.5	101	80-120
Arsenic	50.00	49.68	99	80-120
Barium	100.0	101.0	101	80-120
Beryllium	2.500	2.768	111	80-120
Cadmium	10.00	9.741	97	80-120
Chromium	100.0	99.08	99	80-120
Cobalt	25.00	24.71	99	80-120
Copper	12.50	12.55	100	78-120
Lead	100.0	95.42	95	80-120
Molybdenum	20.00	19.75	99	80-120
Nickel	25.00	24.12	96	80-120
Selenium	50.00	49.07	98	80-120
Silver	10.00	9.816	98	80-120
Thallium	50.00	49.28	99	80-120
Vanadium	25.00	25.08	100	80-120
Zinc	25.00	24.27	97	80-120

Type: BSD Lab ID: QC584326

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	98.44	98	80-120	3	20
Arsenic	50.00	47.96	96	80-120	4	20
Barium	100.0	98.07	98	80-120	3	20
Beryllium	2.500	2.686	107	80-120	3	20
Cadmium	10.00	9.424	94	80-120	3	20
Chromium	100.0	96.95	97	80-120	2	20
Cobalt	25.00	23.96	96	80-120	3	20
Copper	12.50	12.19	97	78-120	3	20
Lead	100.0	92.89	93	80-120	3	20
Molybdenum	20.00	19.03	95	80-120	4	20
Nickel	25.00	23.34	93	80-120	3	20
Selenium	50.00	47.71	95	80-120	3	20
Silver	10.00	9.511	95	80-120	3	20
Thallium	50.00	47.83	96	80-120	3	20
Vanadium	25.00	24.61	98	80-120	2	20
Zinc	25.00	23.59	94	80-120	3	20



California Title 22 Metals			
Lab #:	226637	Location: 64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3050B	
Project#:	241.082.02.001	Analysis: EPA 6010B	
Field ID:	SB-41-2.5	Batch#: 172903	
MSS Lab ID:	226637-001	Sampled: 03/15/11	
Matrix:	Soil	Received: 03/15/11	
Units:	mg/Kg	Prepared: 03/17/11	
Basis:	as received	Analyzed: 03/22/11	
Diln Fac:	1.000	-	

Type: MS Lab ID: QC584327

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	9.108	98.04	49.49	41	7-120
Arsenic	5.269	49.02	51.75	95	66-122
Barium	297.2	98.04	334.5	38 *	51-135
Beryllium	0.4462	2.451	3.106	109	73-120
Cadmium	0.3900	9.804	9.295	91	64-120
Chromium	45.75	98.04	133.9	90	57-122
Cobalt	9.679	24.51	32.59	93	53-122
Copper	185.7	12.25	196.1	86 NM	33-157
Lead	197.2	98.04	255.2	59	52-123
Molybdenum	0.7478	19.61	17.73	87	66-120
Nickel	52.08	24.51	71.41	79	42-137
Selenium	<0.1367	49.02	43.13	88	64-120
Silver	0.3855	9.804	9.771	96	65-120
Thallium	<0.1524	49.02	43.79	89	55-120
Vanadium	36.21	24.51	56.78	84	49-139
Zinc	296.2	24.51	320.5	99 NM	32-155

Type: MSD Lab ID: QC584328

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	92.59	47.95	42	7-120	2	44
Arsenic	46.30	48.59	94	66-122	1	35
Barium	92.59	305.7	9 *	51-135	8	42
Beryllium	2.315	2.911	106	73-120	2	22
Cadmium	9.259	8.859	91	64-120	1	36
Chromium	92.59	145.3	108	57-122	12	34
Cobalt	23.15	31.90	96	53-122	2	32
Copper	11.57	190.8	45 NM	33-157	2	41
Lead	92.59	300.3	111	52-123	18	41
Molybdenum	18.52	17.01	88	66-120	1	20
Nickel	23.15	73.91	94	42-137	5	36
Selenium	46.30	40.05	86	64-120	2	28
Silver	9.259	9.035	93	65-120	2	27
Thallium	46.30	39.41	85	55-120	5	27
Vanadium	23.15	62.04	112	49-139	11	32
Zinc	23.15	350.0	233 NM	32-155	9	45

Page 1 of 1

69.0

^{*=} Value outside of QC limits; see narrative NM= Not Meaningful: Sample concentration > 4X spike concentration RPD= Relative Percent Difference



California Title 22 Metals				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3050B		
Project#:	241.082.02.001	Analysis: EPA 6010B		
Type:	BLANK	Diln Fac: 1.000		
Lab ID:	QC584338	Batch#: 172905		
Matrix:	Soil	Prepared: 03/17/11		
Units:	mg/Kg	Analyzed: 03/18/11		

Analyte	Result	RL	
Antimony	ND	0.50	
Arsenic	ND	0.25	
Barium	ND	0.25	
Beryllium	ND	0.10	
Cadmium	ND	0.25	
Chromium	ND	0.25	
Cobalt	ND	0.25	
Copper	ND	0.26	
Lead	ND	0.25	
Molybdenum	ND	0.25	
Nickel	ND	0.25	
Selenium	ND	0.50	
Silver	ND	0.25	
Thallium	ND	0.50	
Vanadium	ND	0.25	
Zinc	ND	1.0	



California Title 22 Metals				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3050B		
Project#:	241.082.02.001	Analysis: EPA 6010B		
Matrix:	Soil	Batch#: 172905		
Units:	mg/Kg	Prepared: 03/17/11		
Diln Fac:	1.000	Analyzed: 03/18/11		

Type: BS Lab ID: QC584339

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	101.3	101	80-120
Arsenic	50.00	52.09	104	80-120
Barium	100.0	98.06	98	80-120
Beryllium	2.500	2.500	100	80-120
Cadmium	10.00	10.21	102	80-120
Chromium	100.0	97.21	97	80-120
Cobalt	25.00	24.08	96	80-120
Copper	12.50	12.61	101	78-120
Lead	100.0	95.85	96	80-120
Molybdenum	20.00	20.29	101	80-120
Nickel	25.00	24.29	97	80-120
Selenium	50.00	47.84	96	80-120
Silver	10.00	9.774	98	80-120
Thallium	50.00	48.96	98	80-120
Vanadium	25.00	24.65	99	80-120
Zinc	25.00	24.72	99	80-120

Type: BSD Lab ID: QC584340

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	94.48	94	80-120	7	20
Arsenic	50.00	47.91	96	80-120	8	20
Barium	100.0	90.79	91	80-120	8	20
Beryllium	2.500	2.321	93	80-120	7	20
Cadmium	10.00	9.492	95	80-120	7	20
Chromium	100.0	89.83	90	80-120	8	20
Cobalt	25.00	22.25	89	80-120	8	20
Copper	12.50	11.92	95	78-120	6	20
Lead	100.0	89.22	89	80-120	7	20
Molybdenum	20.00	19.03	95	80-120	6	20
Nickel	25.00	22.35	89	80-120	8	20
Selenium	50.00	44.31	89	80-120	8	20
Silver	10.00	9.032	90	80-120	8	20
Thallium	50.00	45.69	91	80-120	7	20
Vanadium	25.00	22.82	91	80-120	8	20
Zinc	25.00	23.03	92	80-120	7	20



California Title 22 Metals			
Lab #:	226637	Location: 64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3050B	
Project#:	241.082.02.001	Analysis: EPA 6010B	
Field ID:	SB-13-2.5	Batch#: 172905	
MSS Lab ID:	226637-021	Sampled: 03/15/11	
Matrix:	Soil	Received: 03/15/11	
Units:	mg/Kg	Prepared: 03/17/11	
Basis:	as received	Analyzed: 03/18/11	
Diln Fac:	1.000		

Type: MS Lab ID: QC584341

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	4.240	91.74	41.75	41	7-120
Arsenic	28.35	45.87	63.05	76	66-122
Barium	234.5	91.74	357.6	134	51-135
Beryllium	0.3233	2.294	2.457	93	73-120
Cadmium	0.9998	9.174	9.540	93	64-120
Chromium	33.58	91.74	116.1	90	57-122
Cobalt	9.389	22.94	29.02	86	53-122
Copper	189.7	11.47	257.9	595 NM	33-157
Lead	232.1	91.74	328.0	105	52-123
Molybdenum	1.133	18.35	16.55	84	66-120
Nickel	38.72	22.94	63.96	110	42-137
Selenium	<0.1393	45.87	39.01	85	64-120
Silver	0.2558	9.174	8.605	91	65-120
Thallium	<0.1553	45.87	37.11	81	55-120
Vanadium	32.52	22.94	55.75	101	49-139
Zinc	337.5	22.94	460.2 >LR	535 NM	32-155

Type: MSD Lab ID: QC584342

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	99.01	53.78	50	7-120	18	44
Arsenic	49.50	72.26	89	66-122	9	35
Barium	99.01	351.6	118	51-135	4	42
Beryllium	2.475	2.669	95	73-120	2	22
Cadmium	9.901	10.02	91	64-120	2	36
Chromium	99.01	125.9	93	57-122	3	34
Cobalt	24.75	30.66	86	53-122	0	32
Copper	12.38	178.5	-90 NM	33-157	37	41
Lead	99.01	372.5	142 *	52-123	10	41
Molybdenum	19.80	18.57	88	66-120	4	20
Nickel	24.75	62.47	96	42-137	5	36
Selenium	49.50	43.12	87	64-120	2	28
Silver	9.901	9.997	98	65-120	8	27
Thallium	49.50	41.72	84	55-120	4	27
Vanadium	24.75	56.50	97	49-139	2	32
Zinc	24.75	360.1	91 NM	32-155	NC	45

Page 1 of 1 46.1

^{*=} Value outside of QC limits; see narrative NC= Not Calculated NM= Not Meaningful: Sample concentration > 4X spike concentration >LR= Response exceeds instrument's linear range RPD= Relative Percent Difference



California Title 22 Metals				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METHOD		
Project#:	241.082.02.001	Analysis: EPA 7471A		
Analyte:	Mercury	Diln Fac: 1.000		
Type:	BLANK	Batch#: 172921		
Lab ID:	QC584393	Prepared: 03/18/11		
Matrix:	Soil	Analyzed: 03/18/11		
Units:	mg/Kg			

Result	RL	
ND	0.020	

ND= Not Detected RL= Reporting Limit



California Title 22 Metals				
Lab #:	226637	Location: 64th &	Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: METHOD)	
Project#:	241.082.02.001	Analysis: EPA 74	.71A	
Analyte:	Mercury	Batch#:	172921	
Matrix:	Soil	Prepared:	03/18/11	
Units:	mg/Kg	Analyzed:	03/18/11	
Diln Fac:	1.000			

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584394	0.2500	0.2610	104	80-120		
BSD	QC584395	0.2500	0.2640	106	80-120	1	20



California Title 22 Metals				
Lab #:	226637	Location: 64th & Christ	tie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: METHOD		
Project#:	241.082.02.001	Analysis: EPA 7471A		
Analyte:	Mercury	Diln Fac: 1.000		
Field ID:	SB-9-2.5	Batch#: 172921	1	
MSS Lab ID:	226605-001	Sampled: 03/14/	/11	
Matrix:	Soil	Received: 03/14/	/11	
Units:	mg/Kg	Prepared: 03/18/	/11	
Basis:	as received	Analyzed: 03/18/	/11	

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584396	0.3191	0.2315	0.4435	54 *	72-124		
MSD	QC584397		0.2404	0.5260	86	72-124	15	31

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1



California Title 22 Metals				
Lab #:	226637	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METHOD		
Project#:	241.082.02.001	Analysis: EPA 7471A		
Analyte:	Mercury	Diln Fac: 1.000		
Type:	BLANK	Batch#: 172975		
Lab ID:	QC584588	Prepared: 03/21/11		
Matrix:	Soil	Analyzed: 03/21/11		
Units:	mg/Kg			

Result	RL	
ND	0.020	

ND= Not Detected RL= Reporting Limit Page 1 of 1

43.1



California Title 22 Metals				
Lab #:	226637	Location: 64th &	Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: METHOD		
Project#:	241.082.02.001	Analysis: EPA 74	71A	
Analyte:	Mercury	Batch#:	172975	
Matrix:	Soil	Prepared:	03/21/11	
Units:	mg/Kg	Analyzed:	03/21/11	
Diln Fac:	1.000			

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584589	0.2500	0.2620	105	80-120		
BSD	QC584590	0.2500	0.2640	106	80-120	1	20



	California Title 22 Metals												
Lab #:	226637	Location: 64th & Christie Emeryville, CA											
Client:	PES Environmental, Inc.	Prep: METHOD											
Project#:	241.082.02.001	Analysis: EPA 7471A											
Analyte:	Mercury	Diln Fac: 1.000											
Field ID:	SB-36-2.5	Batch#: 172975											
MSS Lab ID:	226637-015	Sampled: 03/15/11											
Matrix:	Soil	Received: 03/15/11											
Units:	mg/Kg	Prepared: 03/21/11											
Basis:	as received	Analyzed: 03/21/11											

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584591	0.2827	0.2551	0.6408	140 *	72-124		
MSD	QC584592		0.2500	0.4940	85	72-124	25	31

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1



	California Title 22 Metals											
Lab #:	226637	Location: 64th & Christie Emeryville, CA										
Client:	PES Environmental, Inc.	Prep: METHOD										
Project#:	241.082.02.001	Analysis: EPA 7471A										
Analyte:	Mercury	Diln Fac: 1.000										
Type:	BLANK	Batch#: 172984										
Lab ID:	QC584617	Prepared: 03/21/11										
Matrix:	Soil	Analyzed: 03/21/11										
Units:	mg/Kg											

Result	RL	
ND	0.020	

ND= Not Detected RL= Reporting Limit



	California T	itle 22 Metals	
Lab #:	226637	Location: 64th &	Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: METHOD	
Project#:	241.082.02.001	Analysis: EPA 747	71A
Analyte:	Mercury	Batch#:	172984
Matrix:	Soil	Prepared:	03/21/11
Units:	mg/Kg	Analyzed:	03/21/11
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584618	0.2500	0.2810	112	80-120		
BSD	QC584619	0.2500	0.2780	111	80-120	1	20



	California	Title 22 Meta	ls
Lab #:	226637	Location: 64tl	h & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: MET	HOD
Project#:	241.082.02.001	Analysis: EPA	7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	SB-25-2.5	Batch#:	172984
MSS Lab ID:	226688-001	Sampled:	03/16/11
Matrix:	Soil	Received:	03/16/11
Units:	mg/Kg	Prepared:	03/21/11
Basis:	as received	Analyzed:	03/21/11

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584620	0.5235	0.2551	0.8000	108	72-124		
MSD	QC584621		0.2660	0.9968	178 *	72-124	21	31

^{*=} Value outside of QC limits; see narrative
RPD= Relative Percent Difference
Page 1 of 1





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 226644 ANALYTICAL REPORT

PES Environmental, Inc. Project : 241.082.02.001

1682 Novato Boulevard Location: 64th & Christie Emeryville, CA

Novato, CA 94947 Level : II

Sample ID	<u>Lab ID</u>
TB-1	226644-001
GW-10	226644-002
GW-11	226644-003
GW-12	226644-004
GW-13	226644-005

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Desiree 7. Tetralt

Project Manager

Date: <u>03/28/2011</u>

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 226644

Client: PES Environmental, Inc.

Project: 241.082.02.001

Location: 64th & Christie Emeryville, CA

Request Date: 03/15/11 Samples Received: 03/15/11

This data package contains sample and QC results for five water samples, requested for the above referenced project on 03/15/11. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

High surrogate recovery was observed for 1,2-dichloroethane-d4 in the method blank for batch 173060; no target analytes were detected in the sample. High surrogate recoveries were observed for bromofluorobenzene in the method blank/BS/BSD for batch 173060. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7470A):

No analytical problems were encountered.

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COOLER RECEIPT CHECKLIST



Login #2214044 Date Received 3/5/11 Number of a Client Project of the One of the Control of the	coolers
Date Opened 3 15 11 By (print) R. Parus (sign) Date Logged in 3 16 11 By (print) (sign)	
Did cooler come with a shipping slip (airbill, etc) Shipping info	YES NO
2A. Were custody seals present? \(\subseteq YES \) (circle) on cooler on samples How many \(Name \) Date 2B. Were custody seals intact upon arrival? 3. Were custody papers dry and intact when received? 4. Were custody papers filled out properly (ink, signed, etc)?	YES NO WA YES NO YES NO YES NO
Bubble Wrap	one per towels
Type of ice used: Wet Blue/Gel None Temp(°C)	125
☐ Samples Received on ice & cold without a temperature blank	
☐ Samples received on ice directly from the field. Cooling process had i	heoun
8. Were Method 5035 sampling containers present? If YES, what time were they transferred to freezer? 9. Did all bottles arrive unbroken/unopened? 10. Are samples in the appropriate containers for indicated tests? 11. Are sample labels present, in good condition and complete? 12. Do the sample labels agree with custody papers? 13. Was sufficient amount of sample sent for tests requested? 14. Are the samples appropriately preserved?	YES NO YES NO YES NO YES NO YES NO YES NO YES NO NO N/A
15. Are bubbles > 6mm absent in VOA samples?	ES NO N/A YES NO
ICATEC AND 11 10	ate:
-002-000 reca 4 vogs each sample	
-001 reca Voar +m	

SOP Volume: Client Services

Section:

1.1.2

Page:

1 of 1

Rev. 6 Number 1 of 3

Effective: 23 July 2008 Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc

Fw: 241.082.02.001 - Groundwater samples from 6340 and 6390 Chr...

220044

Subject: Fw: 241.082.02.001 - Groundwater samples from 6340 and 6390 Christie Ave., Emeryville

From: "Desiree Tetrault" <desiree.tetrault@ctberk.com>

Date: Wed, 16 Mar 2011 10:44:31 -0700

To: <roszette.panis@ctberk.com>, <marte.villanueva@ctberk.com>

Please add Gravity separation (including the comment for TEHM) for the samples we receive from PES (a Blaine Tech COC) for the groundwater samples from 64th and Christie in Emeryville. I believe we should see the samples by the end of the day today.

Also, please use this email and add it to the COC as confirmation.

Thank you!

---- Original Message ----- From: Chris Baldassari

To: desiree.tetrault@ctberk.com

Sent: Wednesday, March 16, 2011 10:30 AM

Subject: 241.082.02.001 - Groundwater samples from 6340 and 6390 Christie Ave., Emeryville

Desiree,

As we discussed, please provide Zemo gravity separation for groundwater samples that we are submitting to C&T from the above-referenced site (via Blaine Tech). Please call me with any questions.

Thanks, Chris

Christopher J. Baldassari Senior Geologist

PES Environmental, Inc.

1682 Novato Boulevard, Suite 100 Novato, CA 94947 415.899.1600 office 415.497.2731 cell 415.899.1601 fax cbaldassari@pesenv.com

Curtis & Tompkins Sample Preservation for 226644

Sample pH: -002a b c d e f	<2 [] [] [] []	>12 [] [] [] [] []	Other
-003a b c d e f g			
-004a b c d e f		[]	
-005a b c d e f g		[] [] [] []	

Analyst. Date:

Page 1 of 1

6 of 48



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Prep: EPA 3520C Lab #: 226644 Client: PES Environmental, Inc. Prep: Project#: 241.082.02.001 Analysis: EPA 8015B 03/15/11 03/15/11 Sampled: Matrix: Water Units: ug/L Received: Diln Fac: 1.000 03/21/11 Prepared: <u>172</u>999 Batch#:

Field ID: GW-10 Analyzed: 03/22/11
Type: SAMPLE Cleanup Method: EPA 3630C
Lab ID: 226644-002

 Analyte
 Result
 RL

 Diesel C10-C24
 4,900 Y
 50

 Diesel C10-C24 (SGCU)
 ND
 50

 Motor Oil C24-C36
 4,800
 300

 Motor Oil C24-C36 (SGCU)
 ND
 300

Surrogate	%REC	Limits
o-Terphenyl	99	60-129
o-Terphenyl (SGCU)	87	60-129

Field ID: GW-11 Analyzed: 03/22/11 Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 226644-003

Analyte	Result	RL	
Diesel C10-C24	5,900 Y	50	
Diesel C10-C24 (SGCU)	130 Y	50	
Motor Oil C24-C36	6,600	300	
Motor Oil C24-C36 (SGCU)	ND	300	

Surrogate	%REC	Limits
o-Terphenyl	97	60-129
o-Terphenyl (SGCU)	105	60-129

Field ID: GW-12 Analyzed: 03/22/11 Type: SAMPLE Cleanup Method: EPA 3630C

Lab ID: 226644-004

Analyte	Result	RL
Diesel C10-C24	10,000 Y	50
Diesel C10-C24 (SGCU)	130 Y	50
Motor Oil C24-C36	11,000	300
Motor Oil C24-C36 (SGCU)	ND	300

Surrogate	%REC	Limits
o-Terphenyl	102	60-129
o-Terphenyl (SGCU)	95	60-129

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit SGCU= Silica gel cleanup

Page 1 of 2

10.2



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Prep: EPA 3520C 226644 Lab #: Client: PES Environmental, Inc. Analysis: EPA 8015B Sampled: 03 Project#: 241.082.02.001 Matrix: Water 03/15/11 Received: Units: ug/L 03/15/11 1.000 172999 Diln Fac: Prepared: 03/21/11 Batch#:

Field ID: GW-13 Lab ID: 226644-005 Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL	Analyzed	
Diesel C10-C24	3,300 Y	50	03/22/11	
Diesel C10-C24 (SGCU)	120 Y	50	03/23/11	
Motor Oil C24-C36	3,500	300	03/22/11	
Motor Oil C24-C36 (SGCU)	ND	300	03/23/11	

Surrogate	%REC	Limits	Analyzed
o-Terphenyl	96	60-129	03/22/11
o-Terphenyl (SGCU)	90	60-129	03/23/11

BLANK 03/22/11 Type: Analyzed: Cleanup Method: EPA 3630C Lab ID: QC584678

Analyte	Result	RL	
Diesel C10-C24	ND	50	
Diesel C10-C24 (SGCU)	ND	50	
Motor Oil C24-C36	ND	300	
Motor Oil C24-C36 (SGCU)	ND	300	

Surrogate	%REC	Limits
o-Terphenyl	94	60-129
o-Terphenyl (SGCU)	102	60-129

 $\mbox{\sc Y=}$ Sample exhibits chromatographic pattern which does not resemble standard $\mbox{\sc ND=}$ Not Detected .

RL= Reporting Limit SGCU= Silica gel cleanup

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10.2



Total Extractable Hydrocarbons					
Lab #:	226644	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3520C			
Project#:	241.082.02.001	Analysis: EPA 8015B			
Matrix:	Water	Batch#: 172999			
Units:	ug/L	Prepared: 03/21/11			
Diln Fac:	1.000	Analyzed: 03/22/11			

Type: BS Cleanup Method: EPA 3630C

Lab ID: QC584679

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,124	85	53-128
Diesel C10-C24 (SGCU)	2,500	2,057	82	53-128

	Surrogate	%REC	Limits
0	-Terphenyl	94	60-129
0	-Terphenyl (SGCU)	90	60-129

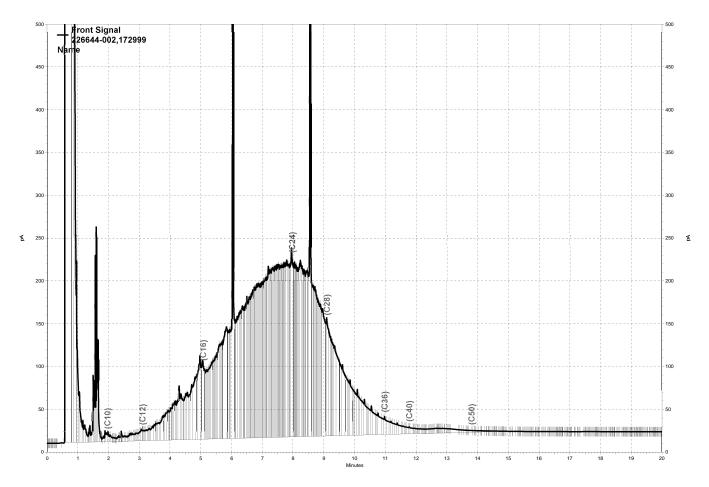
Type: BSD Cleanup Method: EPA 3630C

Lab ID: QC584680

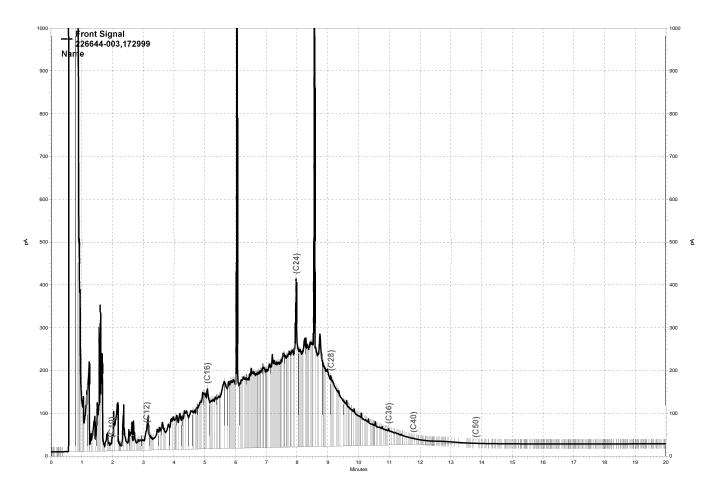
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,093	84	53-128	1	48
Diesel C10-C24 (SGCU)	2,500	1,762	70	53-128	15	48

St	urrogate	%REC	Limits
o-Terphenyl		93	60-129
o-Terphenyl	(SGCU)	79	60-129

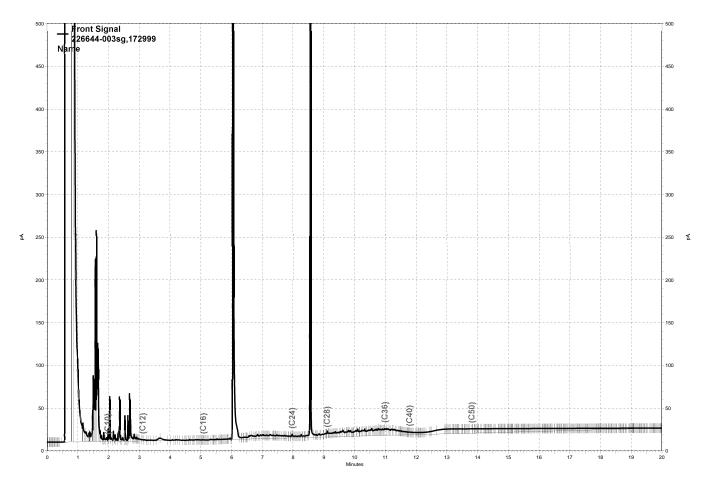
RPD= Relative Percent Difference SGCU= Silica gel cleanup



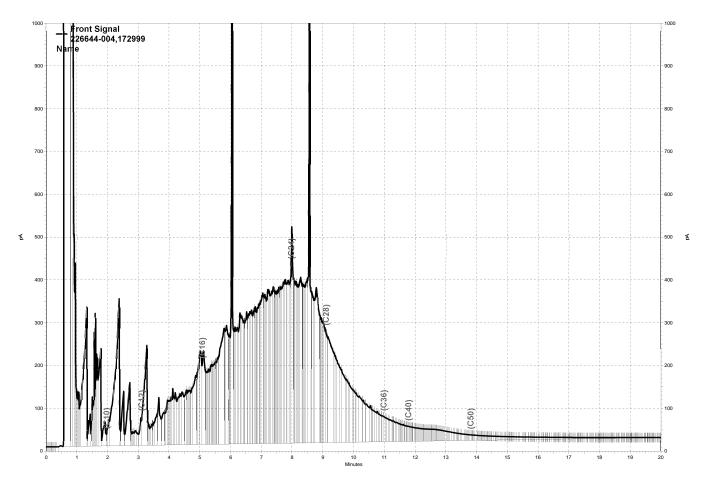
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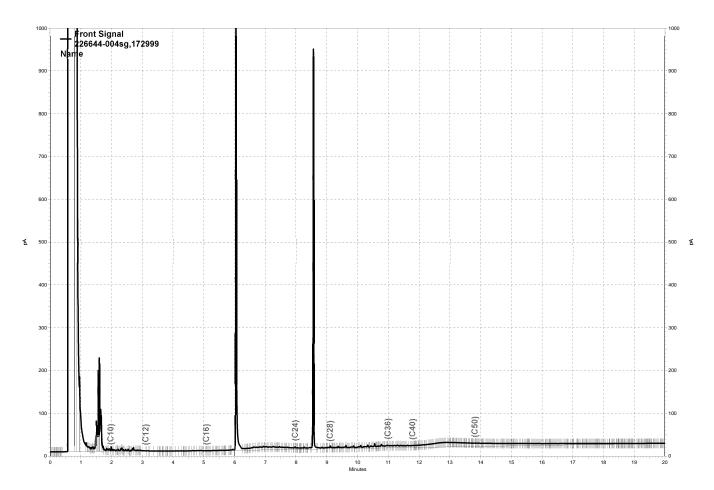
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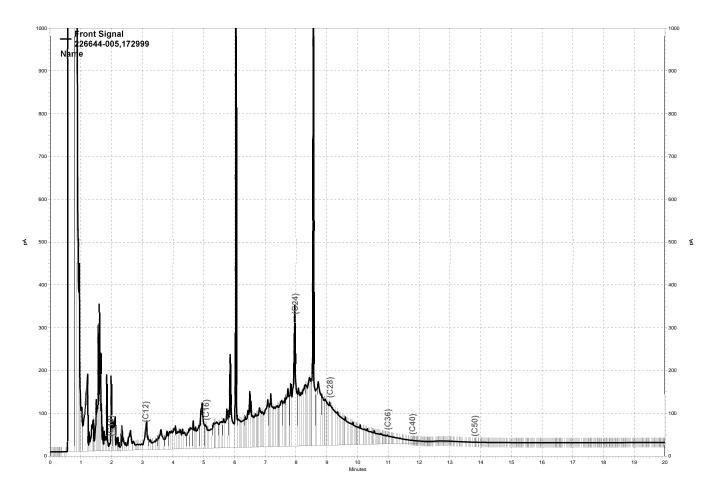
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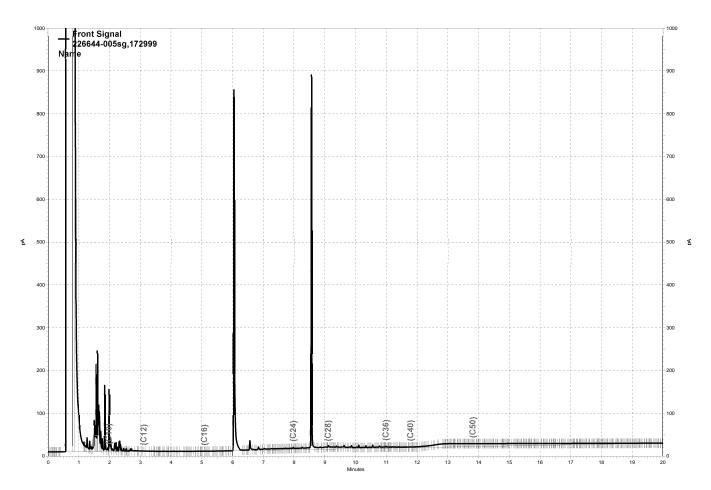
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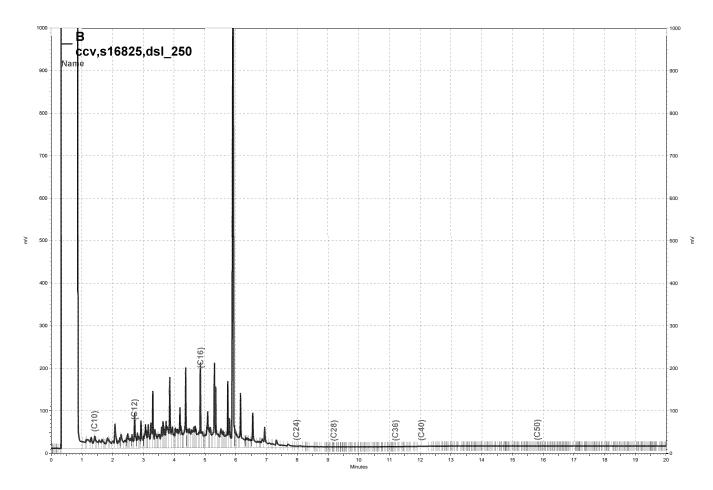
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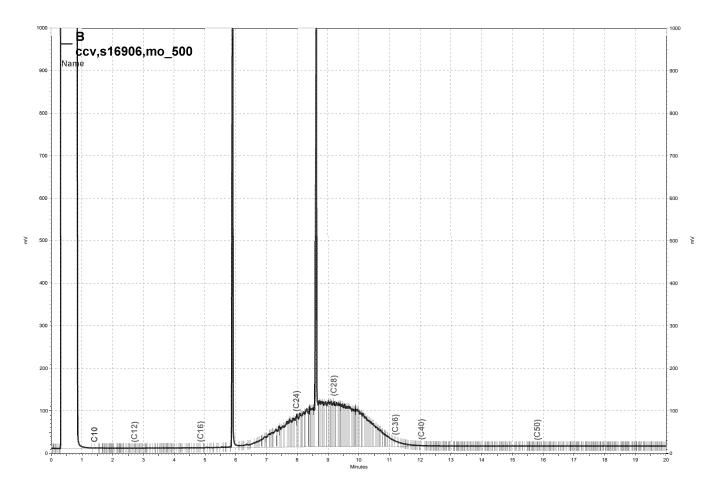
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G:\ezchrom\Projects\GC27\Data\081a021.dat, Front Signal



\Lims\gdrive\ezchrom\Projects\GC14B\Data\081b004, B



\\Lims\gdrive\ezchrom\Projects\GC14B\Data\081b005, B



Curtis & Tompkins Laboratories Analytical Report						
Lab #:	226644	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Field ID:	TB-1	Diln Fac: 1.000				
Lab ID:	226644-001	Sampled: 03/15/11				
Matrix:	Water	Received: 03/15/11				
Units:	ug/L	Analyzed: 03/23/11				

Analyte	Result	RL	Batch#	
Gasoline C7-C12	ND	50	173060	
Freon 12	ND	1.0	173049	
Chloromethane	ND	1.0	173049	
Vinyl Chloride	ND	0.5	173049	
Bromomethane	ND	1.0	173049	
Chloroethane	ND	1.0	173049	
Trichlorofluoromethane	ND	1.0	173049	
Acetone	ND	10	173049	
Freon 113	ND	2.0	173049	
1,1-Dichloroethene	ND	0.5	173049	
Methylene Chloride	ND	10	173049	
Carbon Disulfide	ND	0.5	173049	
MTBE	ND	0.5	173049	
trans-1,2-Dichloroethene	ND	0.5	173049	
Vinyl Acetate	ND	10	173049	
1,1-Dichloroethane	ND	0.5	173049	
2-Butanone	ND	10	173049	
cis-1,2-Dichloroethene	ND	0.5	173049	
2,2-Dichloropropane	ND	0.5	173049	
Chloroform	ND	0.5	173049	
Bromochloromethane	ND	0.5	173049	
1,1,1-Trichloroethane	ND	0.5	173049	
1,1-Dichloropropene	ND	0.5	173049	
Carbon Tetrachloride	ND	0.5	173049	
1,2-Dichloroethane	ND	0.5	173049	
Benzene	ND	0.5	173049	
Trichloroethene	ND	0.5	173049	
1,2-Dichloropropane	ND	0.5	173049	
Bromodichloromethane	ND	0.5	173049	
Dibromomethane	ND	0.5	173049	
4-Methyl-2-Pentanone	ND	10	173049	
cis-1,3-Dichloropropene	ND	0.5	173049	
Toluene	ND	0.5	173049	
trans-1,3-Dichloropropene	ND	0.5	173049	
1,1,2-Trichloroethane	ND	0.5	173049	
2-Hexanone	ND	10	173049	
1,3-Dichloropropane	ND	0.5	173049	
Tetrachloroethene	ND	0.5	173049	

RL= Reporting Limit



Curtis & Tompkins Laboratories Analytical Report							
Lab #:	226644	Location: 64th & Christie Emeryville, CA					
Client:	PES Environmental, Inc.	Prep: EPA 5030B					
Project#:	241.082.02.001	Analysis: EPA 8260B					
Field ID:	TB-1	Diln Fac: 1.000					
Lab ID:	226644-001	Sampled: 03/15/11					
Matrix:	Water	Received: 03/15/11					
Units:	ug/L	Analyzed: 03/23/11					

Analyte	Result	RL	Batch#	
Dibromochloromethane	ND	0.5	173049	
1,2-Dibromoethane	ND	0.5	173049	
Chlorobenzene	ND	0.5	173049	
1,1,1,2-Tetrachloroethane	ND	0.5	173049	
Ethylbenzene	ND	0.5	173049	
m,p-Xylenes	ND	0.5	173049	
o-Xylene	ND	0.5	173049	
Styrene	ND	0.5	173049	
Bromoform	ND	1.0	173049	
Isopropylbenzene	ND	0.5	173049	
1,1,2,2-Tetrachloroethane	ND	0.5	173049	
1,2,3-Trichloropropane	ND	0.5	173049	
Propylbenzene	ND	0.5	173049	
Bromobenzene	ND	0.5	173049	
1,3,5-Trimethylbenzene	ND	0.5	173049	
2-Chlorotoluene	ND	0.5	173049	
4-Chlorotoluene	ND	0.5	173049	
tert-Butylbenzene	ND	0.5	173049	
1,2,4-Trimethylbenzene	ND	0.5	173049	
sec-Butylbenzene	ND	0.5	173049	
para-Isopropyl Toluene	ND	0.5	173049	
1,3-Dichlorobenzene	ND	0.5	173049	
1,4-Dichlorobenzene	ND	0.5	173049	
n-Butylbenzene	ND	0.5	173049	
1,2-Dichlorobenzene	ND	0.5	173049	
1,2-Dibromo-3-Chloropropane	ND	2.0	173049	
1,2,4-Trichlorobenzene	ND	0.5	173049	
Hexachlorobutadiene	ND	2.0	173049	
Naphthalene	ND	2.0	173049	
1,2,3-Trichlorobenzene	ND	0.5	173049	

Surrogate	%REC	Limits	Batch#
Dibromofluoromethane	104	80-125	173049
1,2-Dichloroethane-d4	101	71-146	173049
Toluene-d8	99	80-120	173049
Bromofluorobenzene	98	80-120	173049

RL= Reporting Limit

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Curtis & Tompkins Laboratories Analytical Report							
Lab #:	226644	Location: 64th & Christie Emeryville, CA					
Client:	PES Environmental, Inc.	Prep: EPA 5030B					
Project#:	241.082.02.001	Analysis: EPA 8260B					
Field ID:	GW-10	Diln Fac: 1.000					
Lab ID:	226644-002	Sampled: 03/15/11					
Matrix:	Water	Received: 03/15/11					
Units:	ug/L	Analyzed: 03/23/11					

Analyte	Result	RL	Batch#	
Gasoline C7-C12	ND	50	173060	
Freon 12	ND	1.0	173049	
Chloromethane	ND	1.0	173049	
Vinyl Chloride	ND	0.5	173049	
Bromomethane	ND	1.0	173049	
Chloroethane	ND	1.0	173049	
Trichlorofluoromethane	ND	1.0	173049	
Acetone	ND	10	173049	
Freon 113	ND	2.0	173049	
1,1-Dichloroethene	ND	0.5	173049	
Methylene Chloride	ND	10	173049	
Carbon Disulfide	ND	0.5	173049	
MTBE	ND	0.5	173049	
trans-1,2-Dichloroethene	ND	0.5	173049	
Vinyl Acetate	ND	10	173049	
1,1-Dichloroethane	ND	0.5	173049	
2-Butanone	ND	10	173049	
cis-1,2-Dichloroethene	ND	0.5	173049	
2,2-Dichloropropane	ND	0.5	173049	
Chloroform	ND	0.5	173049	
Bromochloromethane	ND	0.5	173049	
1,1,1-Trichloroethane	ND	0.5	173049	
1,1-Dichloropropene	ND	0.5	173049	
Carbon Tetrachloride	ND	0.5	173049	
1,2-Dichloroethane	ND	0.5	173049	
Benzene	ND	0.5	173049	
Trichloroethene	ND	0.5	173049	
1,2-Dichloropropane	ND	0.5	173049	
Bromodichloromethane	ND	0.5	173049	
Dibromomethane	ND	0.5	173049	
4-Methyl-2-Pentanone	ND	10	173049	
cis-1,3-Dichloropropene	ND	0.5	173049	
Toluene	ND	0.5	173049	
trans-1,3-Dichloropropene	ND	0.5	173049	
1,1,2-Trichloroethane	ND	0.5	173049	
2-Hexanone	ND	10	173049	
1,3-Dichloropropane	ND	0.5	173049	
Tetrachloroethene	ND	0.5	173049	

RL= Reporting Limit



Curtis & Tompkins Laboratories Analytical Report							
Lab #:	226644	Location: 64th & Christie Emeryville, CA					
Client:	PES Environmental, Inc.	Prep: EPA 5030B					
Project#:	241.082.02.001	Analysis: EPA 8260B					
Field ID:	GW-10	Diln Fac: 1.000					
Lab ID:	226644-002	Sampled: 03/15/11					
Matrix:	Water	Received: 03/15/11					
Units:	ug/L	Analyzed: 03/23/11					

Analyte	Result	RL	Batch#	
Dibromochloromethane	ND	0.5	173049	
1,2-Dibromoethane	ND	0.5	173049	
Chlorobenzene	ND	0.5	173049	
1,1,1,2-Tetrachloroethane	ND	0.5	173049	
Ethylbenzene	ND	0.5	173049	
m,p-Xylenes	ND	0.5	173049	
o-Xylene	ND	0.5	173049	
Styrene	ND	0.5	173049	
Bromoform	ND	1.0	173049	
Isopropylbenzene	ND	0.5	173049	
1,1,2,2-Tetrachloroethane	ND	0.5	173049	
1,2,3-Trichloropropane	ND	0.5	173049	
Propylbenzene	ND	0.5	173049	
Bromobenzene	ND	0.5	173049	
1,3,5-Trimethylbenzene	ND	0.5	173049	
2-Chlorotoluene	ND	0.5	173049	
4-Chlorotoluene	ND	0.5	173049	
tert-Butylbenzene	ND	0.5	173049	
1,2,4-Trimethylbenzene	0.6	0.5	173049	
sec-Butylbenzene	ND	0.5	173049	
para-Isopropyl Toluene	ND	0.5	173049	
1,3-Dichlorobenzene	ND	0.5	173049	
1,4-Dichlorobenzene	ND	0.5	173049	
n-Butylbenzene	ND	0.5	173049	
1,2-Dichlorobenzene	ND	0.5	173049	
1,2-Dibromo-3-Chloropropane	ND	2.0	173049	
1,2,4-Trichlorobenzene	ND	0.5	173049	
Hexachlorobutadiene	ND	2.0	173049	
Naphthalene	ND	2.0	173049	
1,2,3-Trichlorobenzene	ND	0.5	173049	

Surrogate	%REC	Limits	Batch#
Dibromofluoromethane	109	80-125	173049
1,2-Dichloroethane-d4	102	71-146	173049
Toluene-d8	99	80-120	173049
Bromofluorobenzene	101	80-120	173049

RL= Reporting Limit

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Curtis & Tompkins Laboratories Analytical Report					
Lab #:	226644	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5030B			
Project#:	241.082.02.001	Analysis: EPA 8260B			
Field ID:	GW-11	Diln Fac: 1.000			
Lab ID:	226644-003	Sampled: 03/15/11			
Matrix:	Water	Received: 03/15/11			
Units:	ug/L	Analyzed: 03/23/11			

Analyte	Result	RL	Batch#	
Gasoline C7-C12	180	50	173060	
Freon 12	ND	1.0	173049	
Chloromethane	ND	1.0	173049	
Vinyl Chloride	ND	0.5	173049	
Bromomethane	ND	1.0	173049	
Chloroethane	ND	1.0	173049	
Trichlorofluoromethane	ND	1.0	173049	
Acetone	ND	10	173049	
Freon 113	ND	2.0	173049	
1,1-Dichloroethene	ND	0.5	173049	
Methylene Chloride	ND	10	173049	
Carbon Disulfide	ND	0.5	173049	
MTBE	ND	0.5	173049	
trans-1,2-Dichloroethene	ND	0.5	173049	
Vinyl Acetate	ND	10	173049	
1,1-Dichloroethane	ND	0.5	173049	
2-Butanone	ND	10	173049	
cis-1,2-Dichloroethene	ND	0.5	173049	
2,2-Dichloropropane	ND	0.5	173049	
Chloroform	ND	0.5	173049	
Bromochloromethane	ND	0.5	173049	
1,1,1-Trichloroethane	ND	0.5	173049	
1,1-Dichloropropene	ND	0.5	173049	
Carbon Tetrachloride	ND	0.5	173049	
1,2-Dichloroethane	ND	0.5	173049	
Benzene	ND	0.5	173049	
Trichloroethene	ND	0.5	173049	
1,2-Dichloropropane	ND	0.5	173049	
Bromodichloromethane	ND	0.5	173049	
Dibromomethane	ND	0.5	173049	
4-Methyl-2-Pentanone	ND	10	173049	
cis-1,3-Dichloropropene	ND	0.5	173049	
Toluene	2.0	0.5	173049	
trans-1,3-Dichloropropene	ND	0.5	173049	
1,1,2-Trichloroethane	ND	0.5	173049	
2-Hexanone	ND	10	173049	
1,3-Dichloropropane	ND	0.5	173049	
Tetrachloroethene	ND	0.5	173049	

RL= Reporting Limit



Curtis & Tompkins Laboratories Analytical Report					
Lab #:	226644	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5030B			
Project#:	241.082.02.001	Analysis: EPA 8260B			
Field ID:	GW-11	Diln Fac: 1.000			
Lab ID:	226644-003	Sampled: 03/15/11			
Matrix:	Water	Received: 03/15/11			
Units:	ug/L	Analyzed: 03/23/11			

Analyte	Result	RL	Batch#	
Dibromochloromethane	ND	0.5	173049	
1,2-Dibromoethane	ND	0.5	173049	
Chlorobenzene	ND	0.5	173049	
1,1,1,2-Tetrachloroethane	ND	0.5	173049	
Ethylbenzene	ND	0.5	173049	
m,p-Xylenes	0.6	0.5	173049	
o-Xylene	ND	0.5	173049	
Styrene	ND	0.5	173049	
Bromoform	ND	1.0	173049	
Isopropylbenzene	ND	0.5	173049	
1,1,2,2-Tetrachloroethane	ND	0.5	173049	
1,2,3-Trichloropropane	ND	0.5	173049	
Propylbenzene	0.7	0.5	173049	
Bromobenzene	ND	0.5	173049	
1,3,5-Trimethylbenzene	ND	0.5	173049	
2-Chlorotoluene	ND	0.5	173049	
4-Chlorotoluene	ND	0.5	173049	
tert-Butylbenzene	ND	0.5	173049	
1,2,4-Trimethylbenzene	1.9	0.5	173049	
sec-Butylbenzene	0.6	0.5	173049	
para-Isopropyl Toluene	ND	0.5	173049	
1,3-Dichlorobenzene	ND	0.5	173049	
1,4-Dichlorobenzene	ND	0.5	173049	
n-Butylbenzene	ND	0.5	173049	
1,2-Dichlorobenzene	ND	0.5	173049	
1,2-Dibromo-3-Chloropropane	ND	2.0	173049	
1,2,4-Trichlorobenzene	ND	0.5	173049	
Hexachlorobutadiene	ND	2.0	173049	
Naphthalene	3.1	2.0	173049	
1,2,3-Trichlorobenzene	ND	0.5	173049	

Surrogate	%REC	Limits	Batch#
Dibromofluoromethane	106	80-125	173049
1,2-Dichloroethane-d4	101	71-146	173049
Toluene-d8	99	80-120	173049
Bromofluorobenzene	99	80-120	173049

RL= Reporting Limit

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Curtis & Tompkins Laboratories Analytical Report					
Lab #:	226644	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5030B			
Project#:	241.082.02.001	Analysis: EPA 8260B			
Field ID:	GW-12	Diln Fac: 1.000			
Lab ID:	226644-004	Sampled: 03/15/11			
Matrix:	Water	Received: 03/15/11			
Units:	ug/L	Analyzed: 03/23/11			

Analyte	Result	RL	Batch#	
Gasoline C7-C12	150 Y	50	173060	
Freon 12	ND	1.0	173049	
Chloromethane	ND	1.0	173049	
Vinyl Chloride	ND	0.5	173049	
Bromomethane	ND	1.0	173049	
Chloroethane	ND	1.0	173049	
Trichlorofluoromethane	ND	1.0	173049	
Acetone	ND	10	173049	
Freon 113	ND	2.0	173049	
1,1-Dichloroethene	ND	0.5	173049	
Methylene Chloride	ND	10	173049	
Carbon Disulfide	ND	0.5	173049	
MTBE	ND	0.5	173049	
trans-1,2-Dichloroethene	ND	0.5	173049	
Vinyl Acetate	ND	10	173049	
1,1-Dichloroethane	ND	0.5	173049	
2-Butanone	ND	10	173049	
cis-1,2-Dichloroethene	ND	0.5	173049	
2,2-Dichloropropane	ND	0.5	173049	
Chloroform	ND	0.5	173049	
Bromochloromethane	ND	0.5	173049	
1,1,1-Trichloroethane	ND	0.5	173049	
1,1-Dichloropropene	ND	0.5	173049	
Carbon Tetrachloride	ND	0.5	173049	
1,2-Dichloroethane	ND	0.5	173049	
Benzene	ND	0.5	173049	
Trichloroethene	ND	0.5	173049	
1,2-Dichloropropane	ND	0.5	173049	
Bromodichloromethane	ND	0.5	173049	
Dibromomethane	ND	0.5	173049	
4-Methyl-2-Pentanone	ND	10	173049	
cis-1,3-Dichloropropene	ND	0.5	173049	
Toluene	ND	0.5	173049	
trans-1,3-Dichloropropene	ND	0.5	173049	
1,1,2-Trichloroethane	ND	0.5	173049	
2-Hexanone	ND	10	173049	
1,3-Dichloropropane	ND	0.5	173049	

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



Curtis & Tompkins Laboratories Analytical Report						
Lab #:	226644	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Field ID:	GW-12	Diln Fac: 1.000				
Lab ID:	226644-004	Sampled: 03/15/11				
Matrix:	Water	Received: 03/15/11				
Units:	ug/L	Analyzed: 03/23/11				

Analyte	Result	RL	Batch#	
Tetrachloroethene	ND	0.5	173049	
Dibromochloromethane	ND	0.5	173049	
1,2-Dibromoethane	ND	0.5	173049	
Chlorobenzene	ND	0.5	173049	
1,1,1,2-Tetrachloroethane	ND	0.5	173049	
Ethylbenzene	ND	0.5	173049	
m,p-Xylenes	0.5	0.5	173049	
o-Xylene	ND	0.5	173049	
Styrene	ND	0.5	173049	
Bromoform	ND	1.0	173049	
Isopropylbenzene	ND	0.5	173049	
1,1,2,2-Tetrachloroethane	ND	0.5	173049	
1,2,3-Trichloropropane	ND	0.5	173049	
Propylbenzene	ND	0.5	173049	
Bromobenzene	ND	0.5	173049	
1,3,5-Trimethylbenzene	ND	0.5	173049	
2-Chlorotoluene	ND	0.5	173049	
4-Chlorotoluene	ND	0.5	173049	
tert-Butylbenzene	ND	0.5	173049	
1,2,4-Trimethylbenzene	1.1	0.5	173049	
sec-Butylbenzene	ND	0.5	173049	
para-Isopropyl Toluene	ND	0.5	173049	
1,3-Dichlorobenzene	ND	0.5	173049	
1,4-Dichlorobenzene	ND	0.5	173049	
n-Butylbenzene	ND	0.5	173049	
1,2-Dichlorobenzene	ND	0.5	173049	
1,2-Dibromo-3-Chloropropane	ND	2.0	173049	
1,2,4-Trichlorobenzene	ND	0.5	173049	
Hexachlorobutadiene	ND	2.0	173049	
Naphthalene	ND	2.0	173049	
1,2,3-Trichlorobenzene	ND	0.5	173049	

Surrogate	%REC	Limits	Batch#
Dibromofluoromethane	106	80-125	173049
1,2-Dichloroethane-d4	100	71-146	173049
Toluene-d8	100	80-120	173049
Bromofluorobenzene	99	80-120	173049

Y= Sample exhibits chromatographic pattern which does not resemble standard

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ND= Not Detected

RL= Reporting Limit



Curtis & Tompkins Laboratories Analytical Report						
Lab #:	226644	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Field ID:	GW-13	Diln Fac: 1.000				
Lab ID:	226644-005	Sampled: 03/15/11				
Matrix:	Water	Received: 03/15/11				
Units:	ug/L	Analyzed: 03/23/11				

Analyte	Result	RL	Batch#	
Gasoline C7-C12	420	50	173060	
Freon 12	ND	1.0	173049	
Chloromethane	ND	1.0	173049	
Vinyl Chloride	ND	0.5	173049	
Bromomethane	ND	1.0	173049	
Chloroethane	ND	1.0	173049	
Trichlorofluoromethane	ND	1.0	173049	
Acetone	ND	10	173049	
Freon 113	ND	2.0	173049	
1,1-Dichloroethene	ND	0.5	173049	
Methylene Chloride	ND	10	173049	
Carbon Disulfide	ND	0.5	173049	
MTBE	ND	0.5	173049	
trans-1,2-Dichloroethene	ND	0.5	173049	
Vinyl Acetate	ND	10	173049	
1,1-Dichloroethane	ND	0.5	173049	
2-Butanone	ND	10	173049	
cis-1,2-Dichloroethene	ND	0.5	173049	
2,2-Dichloropropane	ND	0.5	173049	
Chloroform	ND	0.5	173049	
Bromochloromethane	ND	0.5	173049	
1,1,1-Trichloroethane	ND	0.5	173049	
1,1-Dichloropropene	ND	0.5	173049	
Carbon Tetrachloride	ND	0.5	173049	
1,2-Dichloroethane	ND	0.5	173049	
Benzene	ND	0.5	173049	
Trichloroethene	ND	0.5	173049	
1,2-Dichloropropane	ND	0.5	173049	
Bromodichloromethane	ND	0.5	173049	
Dibromomethane	ND	0.5	173049	
4-Methyl-2-Pentanone	ND	10	173049	
cis-1,3-Dichloropropene	ND	0.5	173049	
Toluene	1.5	0.5	173049	
trans-1,3-Dichloropropene	ND	0.5	173049	
1,1,2-Trichloroethane	ND	0.5	173049	
2-Hexanone	ND	10	173049	
1,3-Dichloropropane	ND	0.5	173049	
Tetrachloroethene	ND	0.5	173049	

ND= Not Detected

RL= Reporting Limit



Curtis & Tompkins Laboratories Analytical Report						
Lab #:	226644	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Field ID:	GW-13	Diln Fac: 1.000				
Lab ID:	226644-005	Sampled: 03/15/11				
Matrix:	Water	Received: 03/15/11				
Units:	ug/L	Analyzed: 03/23/11				

Analyte	Result	RL	Batch#	
Dibromochloromethane	ND	0.5	173049	
1,2-Dibromoethane	ND	0.5	173049	
Chlorobenzene	ND	0.5	173049	
1,1,1,2-Tetrachloroethane	ND	0.5	173049	
Ethylbenzene	1.0	0.5	173049	
m,p-Xylenes	6.2	0.5	173049	
o-Xylene	3.7	0.5	173049	
Styrene	ND	0.5	173049	
Bromoform	ND	1.0	173049	
Isopropylbenzene	0.7	0.5	173049	
1,1,2,2-Tetrachloroethane	ND	0.5	173049	
1,2,3-Trichloropropane	ND	0.5	173049	
Propylbenzene	1.8	0.5	173049	
Bromobenzene	ND	0.5	173049	
1,3,5-Trimethylbenzene	9.4	0.5	173049	
2-Chlorotoluene	ND	0.5	173049	
4-Chlorotoluene	ND	0.5	173049	
tert-Butylbenzene	ND	0.5	173049	
1,2,4-Trimethylbenzene	36	0.5	173049	
sec-Butylbenzene	1.5	0.5	173049	
para-Isopropyl Toluene	2.5	0.5	173049	
1,3-Dichlorobenzene	ND	0.5	173049	
1,4-Dichlorobenzene	ND	0.5	173049	
n-Butylbenzene	2.2	0.5	173049	
1,2-Dichlorobenzene	ND	0.5	173049	
1,2-Dibromo-3-Chloropropane	ND	2.0	173049	
1,2,4-Trichlorobenzene	ND	0.5	173049	
Hexachlorobutadiene	ND	2.0	173049	
Naphthalene	ND	2.0	173049	
1,2,3-Trichlorobenzene	ND	0.5	173049	

Surrogate	%REC	Limits	Batch#
Dibromofluoromethane	108	80-125	173049
1,2-Dichloroethane-d4	101	71-146	173049
Toluene-d8	100	80-120	173049
Bromofluorobenzene	93	80-120	173049

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins Laboratories Analytical Report						
Lab #:	226644	Location: 64th & Christie	Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Matrix:	Water	Batch#: 173049				
Units:	ug/L	Analyzed: 03/23/11				
Diln Fac:	1.000					

Lab ID: QC584890 Type: BS

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	19.57	78	65-138
Benzene	25.00	25.39	102	80-124
Trichloroethene	25.00	25.93	104	78-122
Toluene	25.00	24.35	97	80-120
Chlorobenzene	25.00	25.18	101	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	105	80-125	
1,2-Dichloroethane-d4	102	71-146	
Toluene-d8	98	80-120	
Bromofluorobenzene	96	80-120	

Type: BSD Lab ID: QC584891

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	19.24	77	65-138	2	20
Benzene	25.00	24.61	98	80-124	3	20
Trichloroethene	25.00	25.58	102	78-122	1	20
Toluene	25.00	24.17	97	80-120	1	20
Chlorobenzene	25.00	24.83	99	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-125
1,2-Dichloroethane-d4	100	71-146
Toluene-d8	99	80-120
Bromofluorobenzene	96	80-120



	Curtis & Tompkins Lab	oratories Analytical Report
Lab #: Client: Project#:	226644 PES Environmental, Inc. 241.082.02.001	Location: 64th & Christie Emeryville, CA Prep: EPA 5030B Analysis: EPA 8260B
Type: Lab ID: Matrix: Units:	BLANK QC584892 Water ug/L	Diln Fac: 1.000 Batch#: 173049 Analyzed: 03/23/11

Analyte	Result	RL
Gasoline C7-C12	NA	
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND ND	0.5
o-Xylene	ND ND	0.5
Styrene	ND	0.5
Bromoform	ND ND	1.0
Isopropylbenzene	ND ND	0.5
1,1,2,2-Tetrachloroethane	ND ND	0.5
1,2,3-Trichloropropane	ND ND	0.5
Propylbenzene	ND ND	0.5
Bromobenzene	ND ND	0.5
1,3,5-Trimethylbenzene	ND ND	0.5
TIND TTTIIIC CITY THEILY CITE	אוז	0.3

NA= Not Analyzed ND= Not Detected RL= Reporting Limit Page 1 of 2



	Curtis & Tompkins Lab	oratories Analytical Report
Lab #:	226644	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5030B
Project#:	241.082.02.001	Analysis: EPA 8260B
Type:	BLANK	Diln Fac: 1.000
Lab ID:	QC584892	Batch#: 173049
Matrix: Units:	Water ug/L	Analyzed: 03/23/11

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-125
1,2-Dichloroethane-d4	101	71-146
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-120

NA= Not Analyzed ND= Not Detected RL= Reporting Limit Page 2 of 2



	Curtis & Tompkins Lab	oratories Analytical Report
Lab #: Client: Project#:	226644 PES Environmental, Inc. 241.082.02.001	Location: 64th & Christie Emeryville, CA Prep: EPA 5030B Analysis: EPA 8260B
Type: Lab ID: Matrix: Units:	BLANK QC584934 Water ug/L	Diln Fac: 1.000 Batch#: 173060 Analyzed: 03/23/11

Analyte	Result	RL
Gasoline C7-C12	ND	50
Freon 12	NA	
Chloromethane	NA	
Vinyl Chloride	NA	
Bromomethane	NA	
Chloroethane	NA	
Trichlorofluoromethane	NA	
Acetone	NA	
Freon 113	NA	
1,1-Dichloroethene	NA	
Methylene Chloride	NA	
Carbon Disulfide	NA	
MTBE	NA	
trans-1,2-Dichloroethene	NA	
Vinyl Acetate	NA	
1,1-Dichloroethane	NA	
2-Butanone	NA	
cis-1,2-Dichloroethene	NA	
2,2-Dichloropropane	NA	
Chloroform	NA	
Bromochloromethane	NA	
1,1,1-Trichloroethane	NA	
1,1-Dichloropropene	NA	
Carbon Tetrachloride	NA	
1,2-Dichloroethane	NA	
Benzene	NA	
Trichloroethene	NA	
1,2-Dichloropropane	NA	
Bromodichloromethane	NA	
Dibromomethane	NA	
4-Methyl-2-Pentanone	NA	
cis-1,3-Dichloropropene	NA	
Toluene	NA	
trans-1,3-Dichloropropene	NA	
1,1,2-Trichloroethane	NA	
2-Hexanone	NA	
1,3-Dichloropropane	NA	
Tetrachloroethene	NA	
Dibromochloromethane	NA	
1,2-Dibromoethane	NA	
Chlorobenzene	NA	
1,1,1,2-Tetrachloroethane	NA	
Ethylbenzene	NA	
m,p-Xylenes	NA	
o-Xylene	NA	
Styrene	NA	
Bromoform	NA	
Isopropylbenzene	NA	
1,1,2,2-Tetrachloroethane	NA	
1,2,3-Trichloropropane	NA	
Propylbenzene	NA	
Bromobenzene	NA	

^{*=} Value outside of QC limits; see narrative NA= Not Analyzed ND= Not Detected RL= Reporting Limit

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	Curtis & Tompkins Lab	oratories Analytical Report
Lab #: Client:	226644 PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA Prep: EPA 5030B
Project#: Type:	241.082.02.001 BLANK	Analysis: EPA 8260B Diln Fac: 1.000
Type: Lab ID: Matrix: Units:	QC584934 Water ug/L	Batch#: 173060 Analyzed: 03/23/11

Analyte	Result	RL	
1,3,5-Trimethylbenzene	NA		
2-Chlorotoluene	NA		
4-Chlorotoluene	NA		
tert-Butylbenzene	NA		
1,2,4-Trimethylbenzene	NA		
sec-Butylbenzene	NA		
para-Isopropyl Toluene	NA		
1,3-Dichlorobenzene	NA		
1,4-Dichlorobenzene	NA		
n-Butylbenzene	NA		
1,2-Dichlorobenzene	NA		
1,2-Dibromo-3-Chloropropane	NA		
1,2,4-Trichlorobenzene	NA		
Hexachlorobutadiene	NA		
Naphthalene	NA		
1,2,3-Trichlorobenzene	NA		

Surrogate %R	EC	Limits
Dibromofluoromethane 116		80-125
1,2-Dichloroethane-d4 149	*	71-146
Toluene-d8 115		80-120
Bromofluorobenzene 141	*	80-120

^{*=} Value outside of QC limits; see narrative NA= Not Analyzed ND= Not Detected

RL= Reporting Limit

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	Curtis & Tompkins Labor	atories Analytical Report
Lab #:	226644	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5030B
Project#:	241.082.02.001	Analysis: EPA 8260B
Matrix:	Water	Batch#: 173060
Units:	ug/L	Analyzed: 03/23/11
Diln Fac:	1.000	

Type: BS Lab ID: QC584935

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	786.2	98	70-130

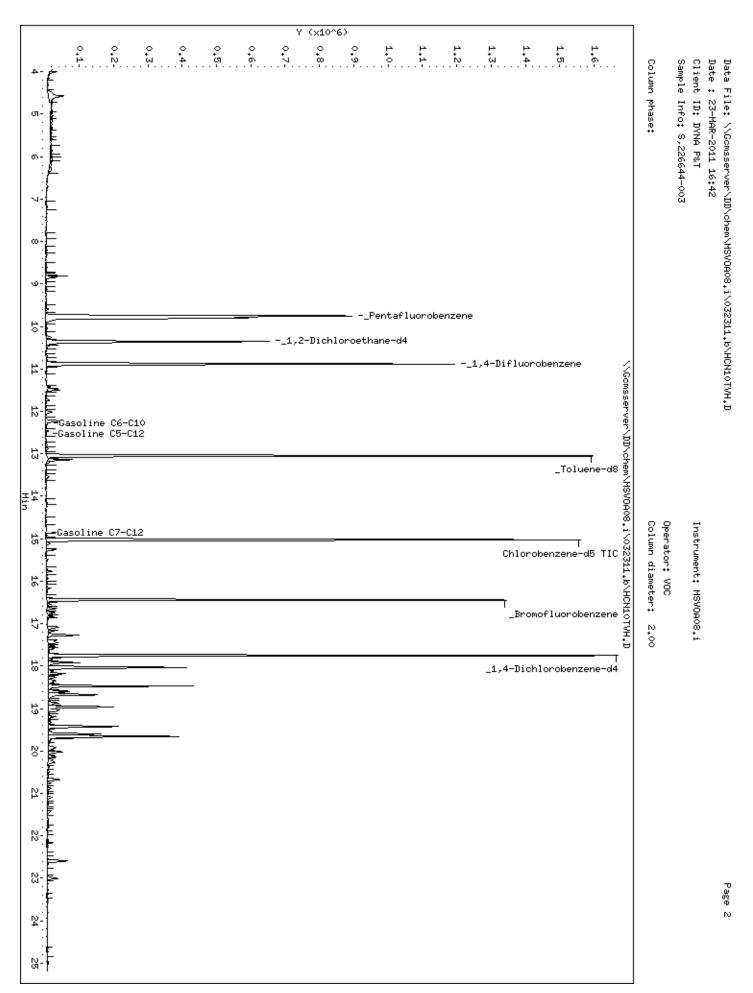
Surrogate	%REC	Limits
Dibromofluoromethane 11	.15	80-125
1,2-Dichloroethane-d4	45	71-146
Toluene-d8	10	80-120
Bromofluorobenzene 13	31 *	80-120

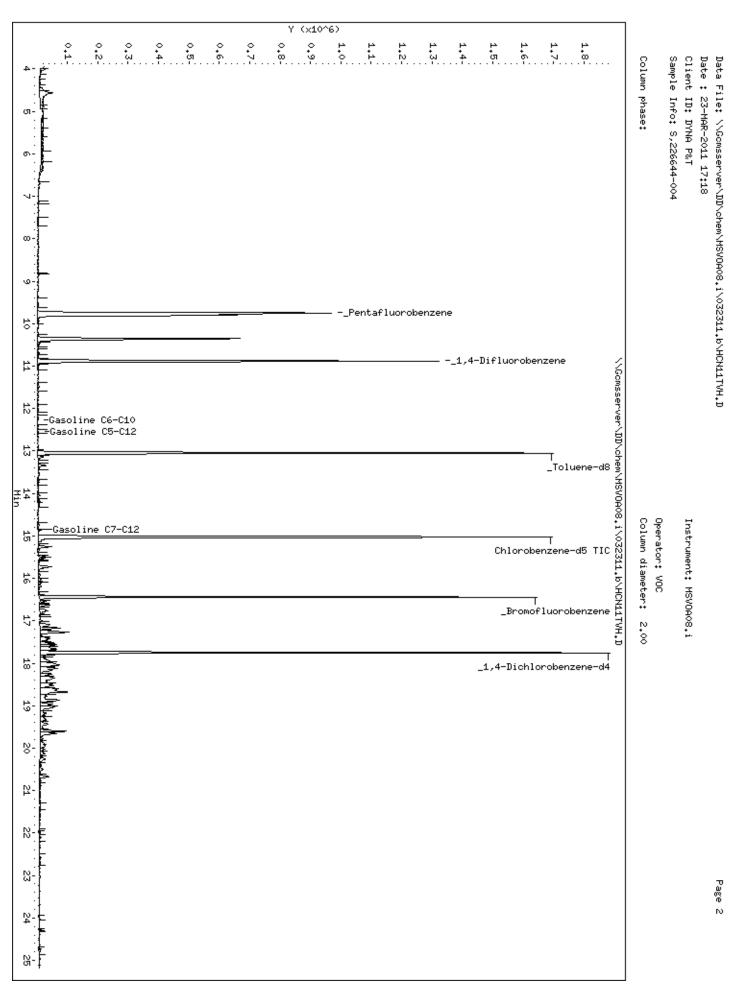
Type: BSD Lab ID: QC584936

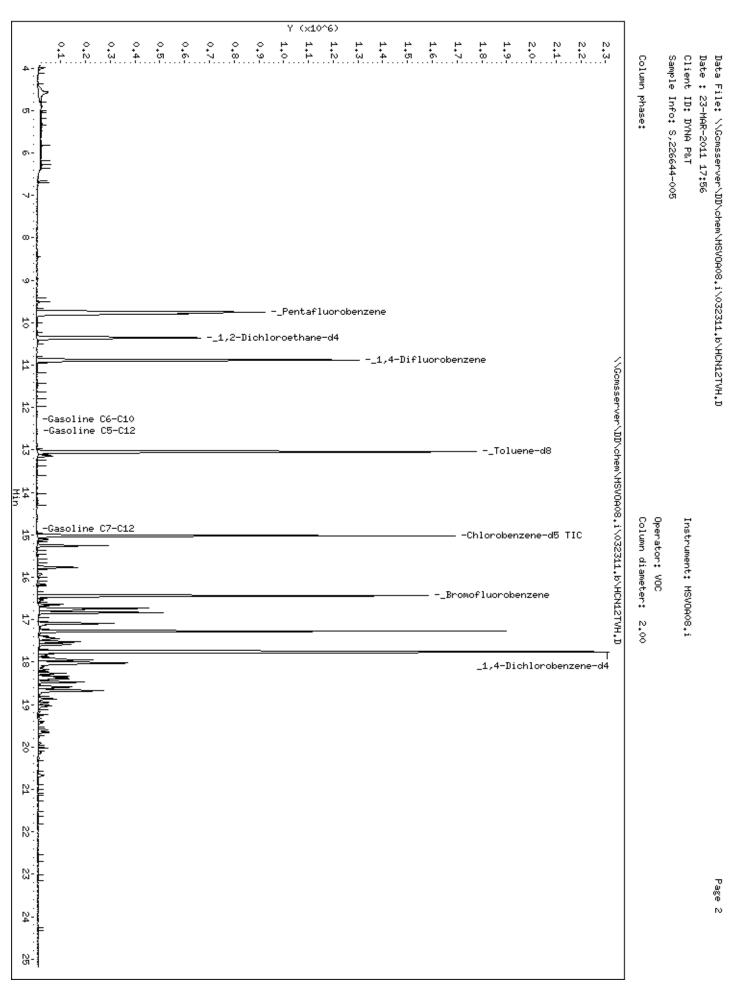
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	800.0	804.3	101	70-130	2	20

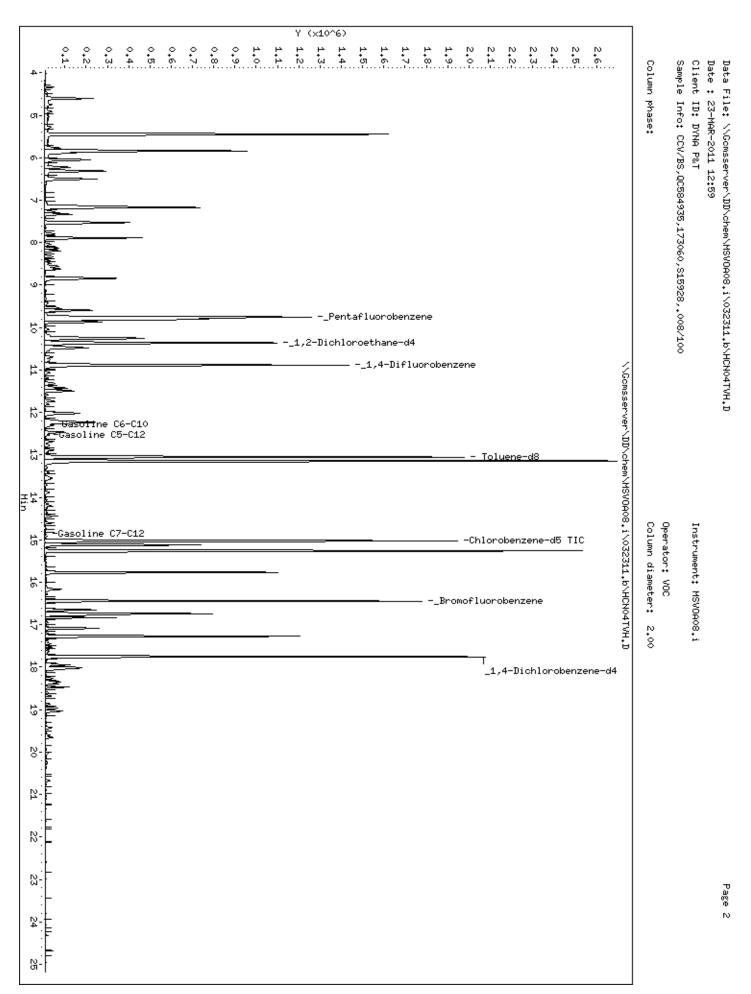
Surrogate	%REC	Limits
Dibromofluoromethane	115	80-125
1,2-Dichloroethane-d4	138	71-146
Toluene-d8	109	80-120
Bromofluorobenzene	132 *	80-120

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference











Dissolved California Title 22 Metals					
Lab #:	226644	Location: 64th	h & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METH	HOD		
Project#:	241.082.02.001				
Field ID:	GW-10	Diln Fac:	1.000		
Lab ID:	226644-002	Sampled:	03/15/11		
Matrix:	Filtrate	Received:	03/15/11		
Units:	ug/L				

Analyte	Result	RL	Batch# Prepared	Analyzed	Analysis
Antimony	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Arsenic	ND	7.1	172852 03/16/11	03/26/11	EPA 6010B
Barium	190	5.0	172852 03/16/11	03/26/11	EPA 6010B
Beryllium	ND	2.0	172852 03/16/11	03/26/11	EPA 6010B
Cadmium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Chromium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Cobalt	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Copper	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Lead	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Mercury	ND	0.20	172987 03/21/11	03/21/11	EPA 7470A
Molybdenum	9.3	5.0	172852 03/16/11	03/26/11	EPA 6010B
Nickel	11	5.0	172852 03/16/11	03/26/11	EPA 6010B
Selenium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Silver	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Thallium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Vanadium	10	5.0	172852 03/16/11	03/26/11	EPA 6010B
Zinc	75	20	172852 03/16/11	03/26/11	EPA 6010B



Dissolved California Title 22 Metals					
Lab #:	226644	Location: 64tl	h & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METI	HOD		
Project#:	241.082.02.001				
Field ID:	GW-11	Diln Fac:	1.000		
Lab ID:	226644-003	Sampled:	03/15/11		
Matrix:	Filtrate	Received:	03/15/11		
Units:	ug/L				

Analyte	Result	RL	Batch# Prepared	Analyzed	Analysis
Antimony	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Arsenic	ND	7.1	172852 03/16/11	03/26/11	EPA 6010B
Barium	1,400	5.0	172852 03/16/11	03/26/11	EPA 6010B
Beryllium	ND	2.0	172852 03/16/11	03/26/11	EPA 6010B
Cadmium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Chromium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Cobalt	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Copper	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Lead	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Mercury	ND	0.20	172987 03/21/11	03/21/11	EPA 7470A
Molybdenum	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Nickel	6.0	5.0	172852 03/16/11	03/26/11	EPA 6010B
Selenium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Silver	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Thallium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Vanadium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Zinc	ND	20	172852 03/16/11	03/26/11	EPA 6010B



Dissolved California Title 22 Metals					
Lab #:	226644	Location: 64th	h & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METH	HOD		
Project#:	241.082.02.001				
Field ID:	GW-12	Diln Fac:	1.000		
Lab ID:	226644-004	Sampled:	03/15/11		
Matrix:	Filtrate	Received:	03/15/11		
Units:	ug/L				

Analyte	Result	RL	Batch# Prepared	Analyzed	Analysis
Antimony	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Arsenic	25	7.1	172852 03/16/11	03/26/11	EPA 6010B
Barium	4,500	5.0	172852 03/16/11	03/26/11	EPA 6010B
Beryllium	ND	2.0	172852 03/16/11	03/26/11	EPA 6010B
Cadmium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Chromium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Cobalt	5.6	5.0	172852 03/16/11	03/26/11	EPA 6010B
Copper	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Lead	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Mercury	ND	0.20	172987 03/21/11	03/21/11	EPA 7470A
Molybdenum	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Nickel	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Selenium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Silver	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Thallium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Vanadium	6.0	5.0	172852 03/16/11	03/26/11	EPA 6010B
Zinc	37	20	172852 03/16/11	03/26/11	EPA 6010B



Dissolved California Title 22 Metals					
Lab #:	226644	Location: 64tl	h & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METI	HOD		
Project#:	241.082.02.001				
Field ID:	GW-13	Diln Fac:	1.000		
Lab ID:	226644-005	Sampled:	03/15/11		
Matrix:	Filtrate	Received:	03/15/11		
Units:	ug/L				

Analyte	Result	RL	Batch# Prepared	Analyzed	Analysis
Antimony	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Arsenic	ND	7.1	172852 03/16/11	03/26/11	EPA 6010B
Barium	210	5.0	172852 03/16/11	03/26/11	EPA 6010B
Beryllium	ND	2.0	172852 03/16/11	03/26/11	EPA 6010B
Cadmium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Chromium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Cobalt	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Copper	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Lead	12	5.0	172852 03/16/11	03/26/11	EPA 6010B
Mercury	ND	0.20	172987 03/21/11	03/21/11	EPA 7470A
Molybdenum	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Nickel	9.7	5.0	172852 03/16/11	03/26/11	EPA 6010B
Selenium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Silver	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Thallium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Vanadium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Zinc	36	20	172852 03/16/11	03/26/11	EPA 6010B



Dissolved California Title 22 Metals					
Lab #:	226644	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD			
Project#:	241.082.02.001	Analysis: EPA 6010B			
Type:	BLANK	Diln Fac: 1.000			
Lab ID:	QC584117	Batch#: 172852			
Matrix:	Filtrate	Prepared: 03/16/11			
Units:	ug/L	Analyzed: 03/26/11			

Analyte	Result	RL	
Antimony	ND	10	
Arsenic	ND	7.1	
Barium	ND	5.0	
Beryllium	ND	2.0	
Cadmium	ND	5.0	
Chromium	ND	5.0	
Cobalt	ND	5.0	
Copper	ND	5.0	
Lead	ND	5.0	
Molybdenum	ND	5.0	
Nickel	ND	5.0	
Selenium	ND	10	
Silver	ND	5.0	
Thallium	ND	10	
Vanadium	ND	5.0	
Zinc	ND	20	

ND= Not Detected RL= Reporting Limit



Dissolved California Title 22 Metals					
Lab #:	226644	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD			
Project#:	241.082.02.001	Analysis: EPA 6010B			
Matrix:	Filtrate	Batch#: 172852			
Units:	ug/L	Prepared: 03/16/11			
Diln Fac:	1.000	Analyzed: 03/26/11			

Type: BS Lab ID: QC584118

Analyte	Spiked	Result	%REC	Limits
Antimony	500.0	510.6	102	75-120
Arsenic	100.0	99.13	99	80-124
Barium	2,000	1,985	99	80-120
Beryllium	50.00	51.73	103	80-120
Cadmium	50.00	50.95	102	80-120
Chromium	200.0	196.8	98	77-120
Cobalt	500.0	479.8	96	78-120
Copper	250.0	230.9	92	74-120
Lead	100.0	97.49	97	75-120
Molybdenum	400.0	413.2	103	80-120
Nickel	500.0	489.7	98	78-120
Selenium	100.0	98.77	99	78-121
Silver	50.00	50.06	100	78-120
Thallium	100.0	104.9	105	79-120
Vanadium	500.0	506.7	101	80-120
Zinc	500.0	507.3	101	79-120

Type: BSD Lab ID: QC584119

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	523.7	105	75-120	3	20
Arsenic	100.0	99.87	100	80-124	1	20
Barium	2,000	2,017	101	80-120	2	20
Beryllium	50.00	52.66	105	80-120	2	20
Cadmium	50.00	52.73	105	80-120	3	20
Chromium	200.0	202.3	101	77-120	3	20
Cobalt	500.0	496.4	99	78-120	3	20
Copper	250.0	243.1	97	74-120	5	20
Lead	100.0	100.9	101	75-120	3	20
Molybdenum	400.0	425.1	106	80-120	3	20
Nickel	500.0	505.3	101	78-120	3	20
Selenium	100.0	103.6	104	78-121	5	20
Silver	50.00	50.87	102	78-120	2	20
Thallium	100.0	109.8	110	79-120	5	20
Vanadium	500.0	513.8	103	80-120	1	20
Zinc	500.0	525.3	105	79-120	3	20



Dissolved California Title 22 Metals					
Lab #:	226644	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD			
Project#:	241.082.02.001	Analysis: EPA 6010B			
Field ID:	ZZZZZZZZZZ	Batch#: 172852			
MSS Lab ID:	226619-001	Sampled: 03/14/11			
Matrix:	Filtrate	Received: 03/15/11			
Units:	ug/L	Prepared: 03/16/11			
Diln Fac:	1.000	Analyzed: 03/26/11			

Type: MS Lab ID: QC584120

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<1.774	500.0	496.6	99	67-120
Arsenic	47.11	100.0	150.7	104	70-132
Barium	4.625	2,000	1,886	94	72-120
Beryllium	<0.2014	50.00	50.03	100	78-121
Cadmium	<1.150	50.00	46.66	93	69-122
Chromium	2.686	200.0	189.1	93	71-120
Cobalt	1.216	500.0	463.9	93	70-120
Copper	<1.614	250.0	239.2	96	65-120
Lead	<1.610	100.0	87.67	88	62-120
Molybdenum	3.982	400.0	399.5	99	76-120
Nickel	4.739	500.0	465.3	92	65-120
Selenium	<2.501	100.0	98.84	99	67-127
Silver	<1.586	50.00	47.48	95	61-120
Thallium	<3.020	100.0	101.5	101	64-121
Vanadium	6.538	500.0	485.3	96	73-120
Zinc	<3.104	500.0	491.2	98	67-123

Type: MSD Lab ID: QC584121

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	508.0	102	67-120	2	20
Arsenic	100.0	146.9	100	70-132	3	28
Barium	2,000	1,874	93	72-120	1	26
Beryllium	50.00	49.34	99	78-121	1	20
Cadmium	50.00	46.26	93	69-122	1	23
Chromium	200.0	189.5	93	71-120	0	23
Cobalt	500.0	458.6	91	70-120	1	23
Copper	250.0	236.0	94	65-120	1	27
Lead	100.0	89.10	89	62-120	2	24
Molybdenum	400.0	401.8	99	76-120	1	24
Nickel	500.0	462.0	91	65-120	1	23
Selenium	100.0	96.22	96	67-127	3	28
Silver	50.00	47.25	95	61-120	0	25
Thallium	100.0	95.93	96	64-121	6	23
Vanadium	500.0	484.0	95	73-120	0	24
Zinc	500.0	485.0	97	67-123	1	25



Dissolved California Title 22 Metals					
Lab #:	226644	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD			
Project#:	241.082.02.001	Analysis: EPA 7470A			
Analyte:	Mercury	Diln Fac: 1.000			
Type:	BLANK	Batch#: 172987			
Lab ID:	QC584629	Prepared: 03/21/11			
Matrix:	Filtrate	Analyzed: 03/21/11			
Units:	ug/L				

Result	RL	
ND	0.20	

ND= Not Detected RL= Reporting Limit Page 1 of 1



Dissolved California Title 22 Metals					
Lab #:	226644	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD			
Project#:	241.082.02.001	Analysis: EPA 7470A			
Analyte:	Mercury	Batch#: 172987			
Matrix:	Filtrate	Prepared: 03/21/11			
Units:	ug/L	Analyzed: 03/21/11			
Diln Fac:	1.000				

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584630	2.500	2.320	93	80-120		
BSD	QC584631	2.500	2.380	95	80-120	3	20



Dissolved California Title 22 Metals				
Lab #:	226644	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METHOD		
Project#:	241.082.02.001	Analysis: EPA 7470A		
Analyte:	Mercury	Batch#: 172987		
Field ID:	ZZZZZZZZZ	Sampled: 03/09/11		
MSS Lab ID:	226504-001	Received: 03/10/11		
Matrix:	Filtrate	Prepared: 03/21/11		
Units:	ug/L	Analyzed: 03/21/11		
Diln Fac:	1.000			

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584632	0.03900	2.500	2.470	97	79-120		
MSD	QC584633		2.500	2.380	94	79-120	4	20





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

Laboratory Job Number 226664 ANALYTICAL REPORT

PES Environmental, Inc. Project : 241.082.02.001

1682 Novato Boulevard Location: 64th & Christie Emeryville, CA

Novato, CA 94947 Level : II

 Sample ID
 Lab ID

 GW-8
 226664-001

 GW-9
 226664-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Deine 7. Tetrett

Project Manager

Date: <u>03/28/2011</u>

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 226664

Client: PES Environmental, Inc.

Project: 241.082.02.001

Location: 64th & Christie Emeryville, CA

Request Date: 03/16/11 Samples Received: 03/16/11

This data package contains sample and QC results for two water samples, requested for the above referenced project on 03/16/11. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

High surrogate recoveries were observed for bromofluorobenzene in the method blank/BS/BSD for batch 173060. High surrogate recovery was observed for 1,2-dichloroethane-d4 in the method blank for batch 173060; no target analytes were detected in the sample. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7470A):

No analytical problems were encountered.

22/2064

DIA					ROGERS AVEN			CON	DUCT	ANAL	YSIS	O DE	ECT	LAB	Entecn		DHS#
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CHAIN OF CUS	STODY					7		lear	Gel	Field I				OTHER			
		BTS#	1103	5-P	41	- SS		el C	lica	Fie							
CLIENT	PES					CONTAINERS		Silica Gel Cleanup	TPH-D / MO (8015m) with out Silica Gel Cleanup	Metals (6010B)				SPECIAL INSTRUCTION	ONS		
SITE						- ₹	(B)	Silic	no ı	601							
	64th and	l Christi	e Ave.] ģ	(8260B)	/W	wit	als (Invoice and Repo	ort to: PES		
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COOLER RECEIPT CHECKLIST



Login #226664 Client PES	Date Received	13/16/11 Project_ Wth	_ Number of co	
Date Opened 3/16/11 Date Logged in V	By (print) R.Po By (print) V	(sign)	Ang	
Did cooler come with a Shipping info	shipping slip (airbill,	etc)		YES (NO)
2A. Were custody seals pr How many 2B. Were custody seals in 3. Were custody papers dr 4. Were custody papers fil 5. Is the project identifiab 6. Indicate the packing in o	Name tact upon arrival? y and intact when reco led out properly (ink, le from custody paper	eived? signed, etc)?		YES NO NA YES NO YES NO YES NO
Bubble Wrap Cloth material 7. Temperature documenta	☐ Cardboard	⊠Bags □ Styrofoam	, -	er towels
Type of ice used:	Wet □ Blue/G	el None	Temp(°C)	3.2
☐ Samples Receiv	ed on ice & cold with	out a temperature		
	ed on ice directly from			egun
8. Were Method 5035 sam If YES, what time v	npling containers preso were they transferred t	ent?		YES O
9. Did all bottles arrive unb	oroken/unopened?			(YES NO
10. Are samples in the app	nopriate containers to	r indicated tests?	44.	YES NO
12. Do the sample labels ag	gree with custody pane	ers?		YES NO
13. Was sufficient amount	of sample sent for test	ts requested?		YES) NO
14. Are the samples approp15. Are bubbles > 6mm abs	riately preserved?		YE	
16. Was the client contacted	d concerning this sam	nle delivery?	YE.	S) NO N/A YES (NO)
If YES, Who was ca	alled?	By	Dat	_ \ /
COMMENTS redd 4	t VOA's each	sample.		
		. \		

SOP Volume: Client Services

Section:

1.1.2

Page: 1 of 1

Rev. 6 Number 1 of 3 Effective: 23 July 2008

Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc

Fw: 241.082.02.001 - Groundwater samples from 6340 and 6390 Chr...

226664

Subject: Fw: 241.082.02.001 - Groundwater samples from 6340 and 6390 Christie Ave., Emeryville

From: "Desiree Tetrault" <desiree.tetrault@ctberk.com>

Date: Wed, 16 Mar 2011 10:44:31 -0700

To: <roszette.panis@ctberk.com>, <marte.villanueva@ctberk.com>

Please add Gravity separation (including the comment for TEHM) for the samples we receive from PES (a Blaine Tech COC) for the groundwater samples from 64th and Christie in Emeryville. I believe we should see the samples by the end of the day today.

Also, please use this email and add it to the COC as confirmation.

Thank you!

---- Original Message ----- From: Chris Baldassari

To: desiree.tetrault@ctberk.com

Sent: Wednesday, March 16, 2011 10:30 AM

Subject: 241.082.02.001 - Groundwater samples from 6340 and 6390 Christie Ave., Emeryville

Desiree,

As we discussed, please provide Zemo gravity separation for groundwater samples that we are submitting to C&T from the above-referenced site (via Blaine Tech). Please call me with any questions.

Thanks, Chris

Christopher J. Baldassari Senior Geologist

PES Environmental, Inc.

1682 Novato Boulevard, Suite 100 Novato, CA 94947 415.899.1600 office 415.497.2731 cell 415.899.1601 fax cbaldassari@pesenv.com

Curtis & Tompkins Sample Preservation for 226664

<u>Sample</u>	: Hq	<2	>12	Other
-001a	_	[]	[]	
b		[]	[]	
c d		[]	[]	
d		[]	[]	
е		\mathbb{N}	[]	
f		[]	١ [] ١	
g		[]	[]	
-002a b c		[] []	[] []	
d		~[]	[]	
е		N	[]	
f		[]	[]	
g		[]	[]	

Analyst: Date: ____ Page 1 of 1



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Prep: EPA 3520C Lab #: 226664 PES Environmental, Inc. Client: Prep: Analysis: EPA 8015B Project#: 241.082.02.001 03/16/11 03/16/11 Sampled: Matrix: Water Received: Units: ug/L Diln Fac: 1.000 Prepared: 03/21/11 Batch#: 172999

Field ID: GW-8 Analyzed: 03/23/11 Type: SAMPLE Cleanup Method: EPA 3630C Lab ID: 226664-001

Analyte	Result	RL	
Diesel C10-C24	1,000 Y	50	
Diesel C10-C24 (SGCU)	ND	50	
Motor Oil C24-C36	1,400	300	
Motor Oil C24-C36 (SGCU)	ND	300	

Surrogate	%REC	Limits
o-Terphenyl	102	60-129
o-Terphenyl (SGCU)	105	60-129

Field ID: GW-9 Analyzed: 03/23/11 Type: SAMPLE Cleanup Method: EPA 3630C Lab ID: 226664-002

Analyte	Result	RL	
Diesel C10-C24	3,600 Y	50	
Diesel C10-C24 (SGCU)	ND	50	
Motor Oil C24-C36	3,900	300	
Motor Oil C24-C36 (SGCU)	ND	300	

Surrogate	%REC	Limits
o-Terphenyl	104	60-129
o-Terphenyl (SGCU)	98	60-129

Type: BLANK Analyzed: 03/22/11 Lab ID: QC584678 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	50	
Diesel C10-C24 (SGCU)	ND	50	
Motor Oil C24-C36	ND	300	
Motor Oil C24-C36 (SGCU)	ND	300	

Surrogate	%REC	Limits
o-Terphenyl	94	60-129
o-Terphenyl (SGCU)	102	60-129

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit SGCU= Silica gel cleanup

Page 1 of 1

8.2



Total Extractable Hydrocarbons				
Lab #:	226664	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3520C		
Project#:	241.082.02.001	Analysis: EPA 8015B		
Matrix:	Water	Batch#: 172999		
Units:	ug/L	Prepared: 03/21/11		
Diln Fac:	1.000	Analyzed: 03/22/11		

Type: BS Cleanup Method: EPA 3630C

Lab ID: QC584679

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,124	85	53-128
Diesel C10-C24 (SGCU)	2,500	2,057	82	53-128

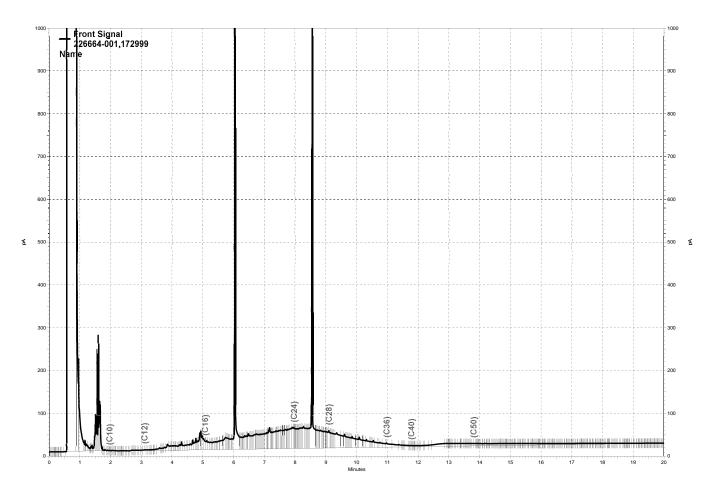
	Surrogate	%REC	Limits
0-7	Terphenyl	94	60-129
0-7	Terphenyl (SGCU)	90	60-129

Type: BSD Cleanup Method: EPA 3630C

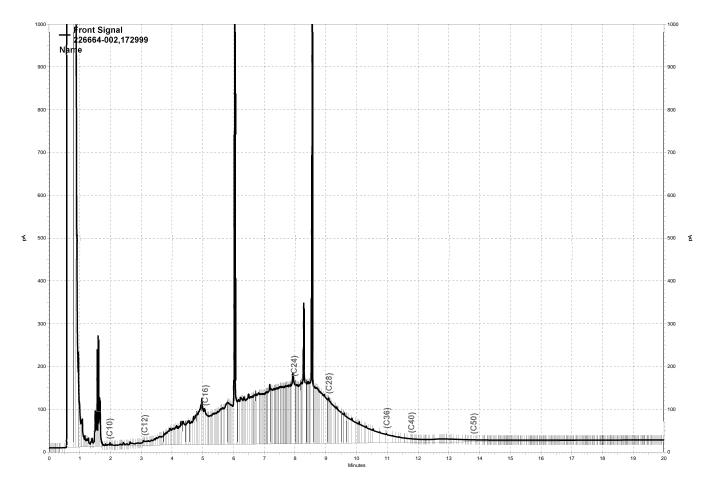
Lab ID: QC584680

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,093	84	53-128	1	48
Diesel C10-C24 (SGCU)	2,500	1,762	70	53-128	15	48

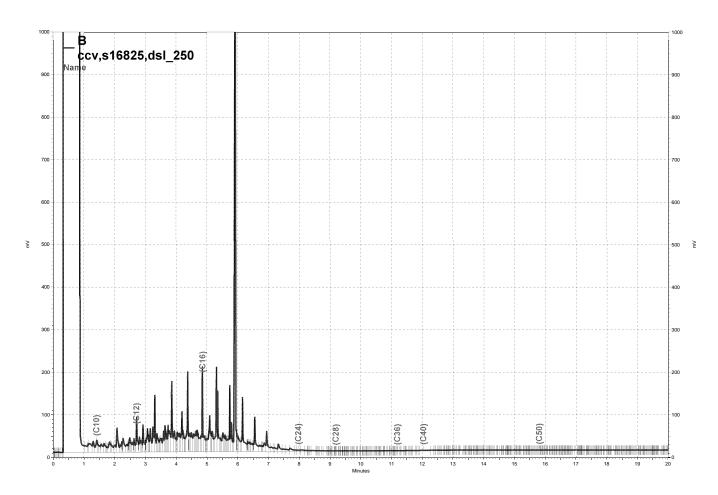
S	Surrogate	%REC	Limits
o-Terphenyl	nyl	93	60-129
o-Terphenyl	nyl (SGCU)	79	60-129



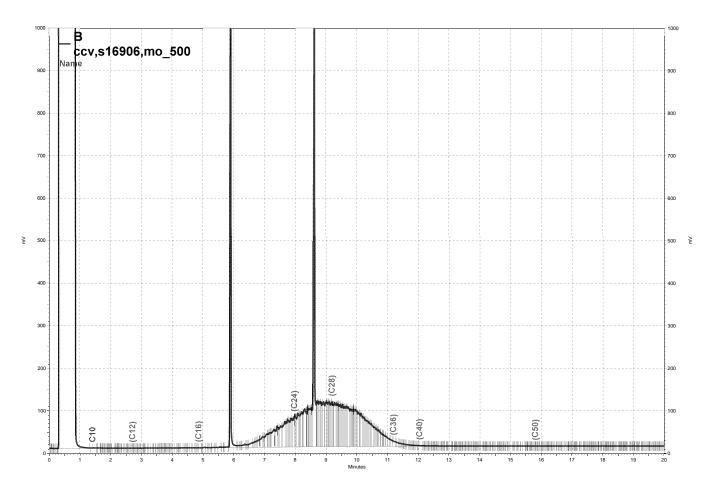
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G:\ezchrom\Projects\GC27\Data\081a028.dat, Front Signal



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Curtis & Tompkins Laboratories Analytical Report				
Lab #:	226664	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 5030B		
Project#:	241.082.02.001	Analysis: EPA 8260B		
Field ID:	GW-8	Diln Fac: 1.000		
Lab ID:	226664-001	Sampled: 03/16/11		
Matrix:	Water	Received: 03/16/11		
Units:	ug/L	Analyzed: 03/23/11		

Analyte	Result	RL	Batch#	
Gasoline C7-C12	ND	50	173060	
Freon 12	ND	1.0	173049	
Chloromethane	ND	1.0	173049	
Vinyl Chloride	ND	0.5	173049	
Bromomethane	ND	1.0	173049	
Chloroethane	ND	1.0	173049	
Trichlorofluoromethane	ND	1.0	173049	
Acetone	ND	10	173049	
Freon 113	ND	2.0	173049	
1,1-Dichloroethene	ND	0.5	173049	
Methylene Chloride	ND	10	173049	
Carbon Disulfide	ND	0.5	173049	
MTBE	2.6	0.5	173049	
trans-1,2-Dichloroethene	ND	0.5	173049	
Vinyl Acetate	ND	10	173049	
1,1-Dichloroethane	ND	0.5	173049	
2-Butanone	ND	10	173049	
cis-1,2-Dichloroethene	ND	0.5	173049	
2,2-Dichloropropane	ND	0.5	173049	
Chloroform	ND	0.5	173049	
Bromochloromethane	ND	0.5	173049	
1,1,1-Trichloroethane	ND	0.5	173049	
1,1-Dichloropropene	ND	0.5	173049	
Carbon Tetrachloride	ND	0.5	173049	
1,2-Dichloroethane	ND	0.5	173049	
Benzene	ND	0.5	173049	
Trichloroethene	ND	0.5	173049	
1,2-Dichloropropane	ND	0.5	173049	
Bromodichloromethane	ND	0.5	173049	
Dibromomethane	ND	0.5	173049	
4-Methyl-2-Pentanone	ND	10	173049	
cis-1,3-Dichloropropene	ND	0.5	173049	
Toluene	ND	0.5	173049	
trans-1,3-Dichloropropene	ND	0.5	173049	
1,1,2-Trichloroethane	ND	0.5	173049	
2-Hexanone	ND	10	173049	
1,3-Dichloropropane	ND	0.5	173049	
Tetrachloroethene	ND	0.5	173049	

RL= Reporting Limit



Curtis & Tompkins Laboratories Analytical Report				
Lab #:	226664	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 5030B		
Project#:	241.082.02.001	Analysis: EPA 8260B		
Field ID:	GW-8	Diln Fac: 1.000		
Lab ID:	226664-001	Sampled: 03/16/11		
Matrix:	Water	Received: 03/16/11		
Units:	ug/L	Analyzed: 03/23/11		

Analyte	Result	RL	Batch#	
Dibromochloromethane	ND	0.5	173049	
1,2-Dibromoethane	ND	0.5	173049	
Chlorobenzene	ND	0.5	173049	
1,1,1,2-Tetrachloroethane	ND	0.5	173049	
Ethylbenzene	ND	0.5	173049	
m,p-Xylenes	ND	0.5	173049	
o-Xylene	ND	0.5	173049	
Styrene	ND	0.5	173049	
Bromoform	ND	1.0	173049	
Isopropylbenzene	ND	0.5	173049	
1,1,2,2-Tetrachloroethane	ND	0.5	173049	
1,2,3-Trichloropropane	ND	0.5	173049	
Propylbenzene	ND	0.5	173049	
Bromobenzene	ND	0.5	173049	
1,3,5-Trimethylbenzene	ND	0.5	173049	
2-Chlorotoluene	ND	0.5	173049	
4-Chlorotoluene	ND	0.5	173049	
tert-Butylbenzene	ND	0.5	173049	
1,2,4-Trimethylbenzene	ND	0.5	173049	
sec-Butylbenzene	ND	0.5	173049	
para-Isopropyl Toluene	ND	0.5	173049	
1,3-Dichlorobenzene	ND	0.5	173049	
1,4-Dichlorobenzene	ND	0.5	173049	
n-Butylbenzene	ND	0.5	173049	
1,2-Dichlorobenzene	ND	0.5	173049	
1,2-Dibromo-3-Chloropropane	ND	2.0	173049	
1,2,4-Trichlorobenzene	ND	0.5	173049	
Hexachlorobutadiene	ND	2.0	173049	
Naphthalene	ND	2.0	173049	
1,2,3-Trichlorobenzene	ND	0.5	173049	

Surrogate	%REC	Limits	Batch#
Dibromofluoromethane	107	80-125	173049
1,2-Dichloroethane-d4	101	71-146	173049
Toluene-d8	100	80-120	173049
Bromofluorobenzene	100	80-120	173049

RL= Reporting Limit

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Curtis & Tompkins Laboratories Analytical Report				
Lab #:	226664	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 5030B		
Project#:	241.082.02.001	Analysis: EPA 8260B		
Field ID:	GW-9	Diln Fac: 1.000		
Lab ID:	226664-002	Sampled: 03/16/11		
Matrix:	Water	Received: 03/16/11		
Units:	ug/L	Analyzed: 03/23/11		

Analyte	Result	RL	Batch#	
Gasoline C7-C12	ND	50	173060	
Freon 12	ND	1.0	173049	
Chloromethane	ND	1.0	173049	
Vinyl Chloride	ND	0.5	173049	
Bromomethane	ND	1.0	173049	
Chloroethane	ND	1.0	173049	
Trichlorofluoromethane	ND	1.0	173049	
Acetone	ND	10	173049	
Freon 113	ND	2.0	173049	
1,1-Dichloroethene	ND	0.5	173049	
Methylene Chloride	ND	10	173049	
Carbon Disulfide	ND	0.5	173049	
MTBE	ND	0.5	173049	
trans-1,2-Dichloroethene	ND	0.5	173049	
Vinyl Acetate	ND	10	173049	
1,1-Dichloroethane	ND	0.5	173049	
2-Butanone	ND	10	173049	
cis-1,2-Dichloroethene	ND	0.5	173049	
2,2-Dichloropropane	ND	0.5	173049	
Chloroform	ND	0.5	173049	
Bromochloromethane	ND	0.5	173049	
1,1,1-Trichloroethane	ND	0.5	173049	
1,1-Dichloropropene	ND	0.5	173049	
Carbon Tetrachloride	ND	0.5	173049	
1,2-Dichloroethane	ND	0.5	173049	
Benzene	ND	0.5	173049	
Trichloroethene	ND	0.5	173049	
1,2-Dichloropropane	ND	0.5	173049	
Bromodichloromethane	ND	0.5	173049	
Dibromomethane	ND	0.5	173049	
4-Methyl-2-Pentanone	ND	10	173049	
cis-1,3-Dichloropropene	ND	0.5	173049	
Toluene	ND	0.5	173049	
trans-1,3-Dichloropropene	ND	0.5	173049	
1,1,2-Trichloroethane	ND	0.5	173049	
2-Hexanone	ND	10	173049	
1,3-Dichloropropane	ND	0.5	173049	
Tetrachloroethene	ND	0.5	173049	

RL= Reporting Limit



Curtis & Tompkins Laboratories Analytical Report				
Lab #:	226664	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 5030B		
Project#:	241.082.02.001	Analysis: EPA 8260B		
Field ID:	GW-9	Diln Fac: 1.000		
Lab ID:	226664-002	Sampled: 03/16/11		
Matrix:	Water	Received: 03/16/11		
Units:	ug/L	Analyzed: 03/23/11		

Analyte	Result	RL	Batch#	
Dibromochloromethane	ND	0.5	173049	
1,2-Dibromoethane	ND	0.5	173049	
Chlorobenzene	ND	0.5	173049	
1,1,1,2-Tetrachloroethane	ND	0.5	173049	
Ethylbenzene	ND	0.5	173049	
m,p-Xylenes	ND	0.5	173049	
o-Xylene	ND	0.5	173049	
Styrene	ND	0.5	173049	
Bromoform	ND	1.0	173049	
Isopropylbenzene	ND	0.5	173049	
1,1,2,2-Tetrachloroethane	ND	0.5	173049	
1,2,3-Trichloropropane	ND	0.5	173049	
Propylbenzene	ND	0.5	173049	
Bromobenzene	ND	0.5	173049	
1,3,5-Trimethylbenzene	ND	0.5	173049	
2-Chlorotoluene	ND	0.5	173049	
4-Chlorotoluene	ND	0.5	173049	
tert-Butylbenzene	ND	0.5	173049	
1,2,4-Trimethylbenzene	0.8	0.5	173049	
sec-Butylbenzene	ND	0.5	173049	
para-Isopropyl Toluene	ND	0.5	173049	
1,3-Dichlorobenzene	ND	0.5	173049	
1,4-Dichlorobenzene	ND	0.5	173049	
n-Butylbenzene	ND	0.5	173049	
1,2-Dichlorobenzene	ND	0.5	173049	
1,2-Dibromo-3-Chloropropane	ND	2.0	173049	
1,2,4-Trichlorobenzene	ND	0.5	173049	
Hexachlorobutadiene	ND	2.0	173049	
Naphthalene	ND	2.0	173049	
1,2,3-Trichlorobenzene	ND	0.5	173049	

Surrogate	%REC	Limits	Batch#
Dibromofluoromethane	107	80-125	173049
1,2-Dichloroethane-d4	101	71-146	173049
Toluene-d8	99	80-120	173049
Bromofluorobenzene	99	80-120	173049

RL= Reporting Limit

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Curtis & Tompkins Laboratories Analytical Report					
Lab #:	226664	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5030B			
Project#:	241.082.02.001	Analysis: EPA 8260B			
Matrix:	Water	Batch#: 173049			
Units:	ug/L	Analyzed: 03/23/11			
Diln Fac:	1.000				

Type: BS Lab ID: QC584890

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	19.57	78	65-138
Benzene	25.00	25.39	102	80-124
Trichloroethene	25.00	25.93	104	78-122
Toluene	25.00	24.35	97	80-120
Chlorobenzene	25.00	25.18	101	80-120

Surrogate	%REC	Limits	
Dibromofluoromethane	105	80-125	
1,2-Dichloroethane-d4	102	71-146	
Toluene-d8	98	80-120	
Bromofluorobenzene	96	80-120	

Type: BSD Lab ID: QC584891

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	19.24	77	65-138	2	20
Benzene	25.00	24.61	98	80-124	3	20
Trichloroethene	25.00	25.58	102	78-122	1	20
Toluene	25.00	24.17	97	80-120	1	20
Chlorobenzene	25.00	24.83	99	80-120	1	20

Surrogate	%REC	Limits	
Dibromofluoromethane	104	30-125	
1,2-Dichloroethane-d4	100	71-146	
Toluene-d8	99	30-120	
Bromofluorobenzene	96	30-120	



Curtis & Tompkins Laboratories Analytical Report				
Lab #: Client: Project#:	226664 PES Environmental, Inc. 241.082.02.001	Location: 64th & Christie Emeryville, CA Prep: EPA 5030B Analysis: EPA 8260B		
Type: Lab ID: Matrix: Units:	BLANK QC584892 Water ug/L	Diln Fac: 1.000 Batch#: 173049 Analyzed: 03/23/11		

Analyte	Result	RL
Gasoline C7-C12	NA	
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND ND	0.5
o-Xylene	ND ND	0.5
Styrene	ND	0.5
Bromoform	ND ND	1.0
Isopropylbenzene	ND ND	0.5
1,1,2,2-Tetrachloroethane	ND ND	0.5
1,2,3-Trichloropropane	ND ND	0.5
Propylbenzene	ND ND	0.5
Bromobenzene	ND ND	0.5
1,3,5-Trimethylbenzene	ND ND	0.5
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NA= Not Analyzed ND= Not Detected RL= Reporting Limit Page 1 of 2



Curtis & Tompkins Laboratories Analytical Report				
Lab #: Client: Project#:	226664 PES Environmental, Inc. 241.082.02.001	Location: 64th & Christie Emeryville, CA Prep: EPA 5030B Analysis: EPA 8260B		
Type: Lab ID:	BLANK OC584892	Diln Fac: 1.000 Batch#: 173049		
Matrix: Units:	Water ug/L	Analyzed: 03/23/11		

Analyte	Result	RL	
2-Chlorotoluene	ND	0.5	
4-Chlorotoluene	ND	0.5	
tert-Butylbenzene	ND	0.5	
1,2,4-Trimethylbenzene	ND	0.5	
sec-Butylbenzene	ND	0.5	
para-Isopropyl Toluene	ND	0.5	
1,3-Dichlorobenzene	ND	0.5	
1,4-Dichlorobenzene	ND	0.5	
n-Butylbenzene	ND	0.5	
1,2-Dichlorobenzene	ND	0.5	
1,2-Dibromo-3-Chloropropane	ND	2.0	
1,2,4-Trichlorobenzene	ND	0.5	
Hexachlorobutadiene	ND	2.0	
Naphthalene	ND	2.0	
1,2,3-Trichlorobenzene	ND	0.5	

Surrogate	%REC	Limits
Dibromofluoromethane 1	107	80-125
1,2-Dichloroethane-d4 1	101	71-146
Toluene-d8 9	99	80-120
Bromofluorobenzene 1	100	80-120

NA= Not Analyzed ND= Not Detected RL= Reporting Limit Page 2 of 2

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Curtis & Tompkins Laboratories Analytical Report				
Lab #: Client: Project#:	226664 PES Environmental, Inc. 241.082.02.001	Location: 64th & Christie Emeryville, CA Prep: EPA 5030B Analysis: EPA 8260B		
Type: Lab ID: Matrix: Units:	BLANK QC584934 Water ug/L	Diln Fac: 1.000 Batch#: 173060 Analyzed: 03/23/11		

Analyte	Result	RL
Gasoline C7-C12	ND	50
Freon 12	NA	
Chloromethane	NA	
Vinyl Chloride	NA	
Bromomethane	NA	
Chloroethane	NA	
Trichlorofluoromethane	NA	
Acetone	NA	
Freon 113	NA	
1,1-Dichloroethene	NA	
Methylene Chloride	NA	
Carbon Disulfide	NA	
MTBE	NA	
trans-1,2-Dichloroethene	NA	
Vinyl Acetate	NA	
1,1-Dichloroethane	NA	
2-Butanone	NA	
cis-1,2-Dichloroethene	NA	
2,2-Dichloropropane	NA	
Chloroform	NA	
Bromochloromethane	NA	
1,1,1-Trichloroethane	NA	
1,1-Dichloropropene	NA	
Carbon Tetrachloride	NA	
1,2-Dichloroethane	NA	
Benzene	NA	
Trichloroethene	NA	
1,2-Dichloropropane	NA	
Bromodichloromethane	NA	
Dibromomethane	NA	
4-Methyl-2-Pentanone	NA	
cis-1,3-Dichloropropene	NA	
Toluene	NA	
trans-1,3-Dichloropropene	NA	
1,1,2-Trichloroethane	NA	
2-Hexanone	NA	
1,3-Dichloropropane	NA	
Tetrachloroethene	NA	
Dibromochloromethane	NA	
1,2-Dibromoethane	NA	
Chlorobenzene	NA	
1,1,1,2-Tetrachloroethane	NA	
Ethylbenzene	NA	
m,p-Xylenes	NA	
o-Xylene	NA	
Styrene	NA	
Bromoform	NA	
Isopropylbenzene	NA	
1,1,2,2-Tetrachloroethane	NA	
1,2,3-Trichloropropane	NA	
Propylbenzene	NA	
Bromobenzene	NA	

^{*=} Value outside of QC limits; see narrative NA= Not Analyzed ND= Not Detected RL= Reporting Limit

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Curtis & Tompkins Laboratories Analytical Report				
Lab #:	226664	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 5030B		
Project#:	241.082.02.001	Analysis: EPA 8260B		
Type: Lab ID:	BLANK	Diln Fac: 1.000		
Lab ID:	QC584934	Batch#: 173060		
Matrix:	Water	Analyzed: 03/23/11		
Units:	ug/L	•		

Analyte	Result	RL	
1,3,5-Trimethylbenzene	NA		
2-Chlorotoluene	NA		
4-Chlorotoluene	NA		
tert-Butylbenzene	NA		
1,2,4-Trimethylbenzene	NA		
sec-Butylbenzene	NA		
para-Isopropyl Toluene	NA		
1,3-Dichlorobenzene	NA		
1,4-Dichlorobenzene	NA		
n-Butylbenzene	NA		
1,2-Dichlorobenzene	NA		
1,2-Dibromo-3-Chloropropane	NA		
1,2,4-Trichlorobenzene	NA		
Hexachlorobutadiene	NA		
Naphthalene	NA		
1,2,3-Trichlorobenzene	NA		

Surrogate %R	EC	Limits
Dibromofluoromethane 116		80-125
1,2-Dichloroethane-d4 149	*	71-146
Toluene-d8 115		80-120
Bromofluorobenzene 141	*	80-120

RL= Reporting Limit

^{*=} Value outside of QC limits; see narrative NA= Not Analyzed ND= Not Detected

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Curtis & Tompkins Laboratories Analytical Report							
Lab #:	226664	Location: 64th & Christie Emeryville, CA					
Client:	PES Environmental, Inc.	Prep: EPA 5030B					
Project#:	241.082.02.001	Analysis: EPA 8260B					
Matrix:	Water	Batch#: 173060					
Units:	ug/L	Analyzed: 03/23/11					
Diln Fac:	1.000						

Type: BS Lab ID: QC584935

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	800.0	786.2	98	70-130

Surrogate	%REC	Limits
Dibromofluoromethane 11	.15	80-125
1,2-Dichloroethane-d4	45	71-146
Toluene-d8	10	80-120
Bromofluorobenzene 13	31 *	80-120

Type: BSD Lab ID: QC584936

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	800.0	804.3	101	70-130	2	20

Surrogate	%REC	Limits
Dibromofluoromethane 1	115	80-125
1,2-Dichloroethane-d4	138	71-146
Toluene-d8	109	80-120
Bromofluorobenzene	132 *	80-120

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference



Dissolved California Title 22 Metals							
Lab #:	226664	Location: 64th 8	& Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: METHOI	D				
Project#:	241.082.02.001						
Field ID:	GW-8	Diln Fac:	1.000				
Lab ID:	226664-001	Sampled:	03/16/11				
Matrix:	Filtrate	Received:	03/16/11				
Units:	ug/L						

Analyte	Result	RL	Batch# Prepared	Analyzed	Analysis
Antimony	ND	10	172852 03/16/11	03/27/11	EPA 6010B
Arsenic	ND	7.1	172852 03/16/11	03/26/11	EPA 6010B
Barium	400	5.0	172852 03/16/11	03/26/11	EPA 6010B
Beryllium	ND	2.0	172852 03/16/11	03/26/11	EPA 6010B
Cadmium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Chromium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Cobalt	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Copper	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Lead	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Mercury	ND	0.20	173021 03/22/11	03/22/11	EPA 7470A
Molybdenum	24	5.0	172852 03/16/11	03/26/11	EPA 6010B
Nickel	12	5.0	172852 03/16/11	03/26/11	EPA 6010B
Selenium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Silver	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Thallium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Vanadium	9.8	5.0	172852 03/16/11	03/26/11	EPA 6010B
Zinc	ND	20	172852 03/16/11	03/27/11	EPA 6010B

ND= Not Detected RL= Reporting Limit



Dissolved California Title 22 Metals							
Lab #:	226664	Location: 64tl	h & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: MET	HOD				
Project#:	241.082.02.001						
Field ID:	GW-9	Diln Fac:	1.000				
Lab ID:	226664-002	Sampled:	03/16/11				
Matrix:	Filtrate	Received:	03/16/11				
Units:	ug/L						

Analyte	Result	RL	Batch# Prepared	Analyzed	Analysis
Antimony	ND	10	172852 03/16/11	03/27/11	EPA 6010B
Arsenic	ND	7.1	172852 03/16/11	03/26/11	EPA 6010B
Barium	690	5.0	172852 03/16/11	03/26/11	EPA 6010B
Beryllium	ND	2.0	172852 03/16/11	03/26/11	EPA 6010B
Cadmium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Chromium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Cobalt	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Copper	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Lead	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Mercury	ND	0.20	173021 03/22/11	03/22/11	EPA 7470A
Molybdenum	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Nickel	7.5	5.0	172852 03/16/11	03/26/11	EPA 6010B
Selenium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Silver	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Thallium	ND	10	172852 03/16/11	03/26/11	EPA 6010B
Vanadium	ND	5.0	172852 03/16/11	03/26/11	EPA 6010B
Zinc	ND	20	172852 03/16/11	03/27/11	EPA 6010B

ND= Not Detected RL= Reporting Limit



Dissolved California Title 22 Metals						
Lab #:	226664	Location: 64th 8	Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD				
Project#:	241.082.02.001	Analysis: EPA 60)10B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC584117	Batch#:	172852			
Matrix:	Filtrate	Prepared:	03/16/11			
Units:	ug/L	Analyzed:	03/26/11			

Analyte	Result	RL	
Antimony	ND	10	
Arsenic	ND	7.1	
Barium	ND	5.0	
Beryllium	ND	2.0	
Cadmium	ND	5.0	
Chromium	ND	5.0	
Cobalt	ND	5.0	
Copper	ND	5.0	
Lead	ND	5.0	
Molybdenum	ND	5.0	
Nickel	ND	5.0	
Selenium	ND	10	
Silver	ND	5.0	
Thallium	ND	10	
Vanadium	ND	5.0	
Zinc	ND	20	

ND= Not Detected RL= Reporting Limit



Dissolved California Title 22 Metals						
Lab #:	226664	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: METHOD				
Project#:	241.082.02.001	Analysis: EPA 6010B				
Matrix:	Filtrate	Batch#: 172852				
Units:	ug/L	Prepared: 03/16/11				
Diln Fac:	1.000	Analyzed: 03/26/11				

Type: BS Lab ID: QC584118

Analyte	Spiked	Result	%REC	Limits
Antimony	500.0	510.6	102	75-120
Arsenic	100.0	99.13	99	80-124
Barium	2,000	1,985	99	80-120
Beryllium	50.00	51.73	103	80-120
Cadmium	50.00	50.95	102	80-120
Chromium	200.0	196.8	98	77-120
Cobalt	500.0	479.8	96	78-120
Copper	250.0	230.9	92	74-120
Lead	100.0	97.49	97	75-120
Molybdenum	400.0	413.2	103	80-120
Nickel	500.0	489.7	98	78-120
Selenium	100.0	98.77	99	78-121
Silver	50.00	50.06	100	78-120
Thallium	100.0	104.9	105	79-120
Vanadium	500.0	506.7	101	80-120
Zinc	500.0	507.3	101	79-120

Type: BSD Lab ID: QC584119

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	523.7	105	75-120	3	20
Arsenic	100.0	99.87	100	80-124	1	20
Barium	2,000	2,017	101	80-120	2	20
Beryllium	50.00	52.66	105	80-120	2	20
Cadmium	50.00	52.73	105	80-120	3	20
Chromium	200.0	202.3	101	77-120	3	20
Cobalt	500.0	496.4	99	78-120	3	20
Copper	250.0	243.1	97	74-120	5	20
Lead	100.0	100.9	101	75-120	3	20
Molybdenum	400.0	425.1	106	80-120	3	20
Nickel	500.0	505.3	101	78-120	3	20
Selenium	100.0	103.6	104	78-121	5	20
Silver	50.00	50.87	102	78-120	2	20
Thallium	100.0	109.8	110	79-120	5	20
Vanadium	500.0	513.8	103	80-120	1	20
Zinc	500.0	525.3	105	79-120	3	20



Dissolved California Title 22 Metals					
Lab #:	226664	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD			
Project#:	241.082.02.001	Analysis: EPA 6010B			
Field ID:	ZZZZZZZZZZ	Batch#: 172852			
MSS Lab ID:	226619-001	Sampled: 03/14/11			
Matrix:	Filtrate	Received: 03/15/11			
Units:	uq/L	Prepared: 03/16/11			
Diln Fac:	1.000	Analyzed: 03/26/11			

Type: MS Lab ID: QC584120

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<1.774	500.0	496.6	99	67-120
Arsenic	47.11	100.0	150.7	104	70-132
Barium	4.625	2,000	1,886	94	72-120
Beryllium	<0.2014	50.00	50.03	100	78-121
Cadmium	<1.150	50.00	46.66	93	69-122
Chromium	2.686	200.0	189.1	93	71-120
Cobalt	1.216	500.0	463.9	93	70-120
Copper	<1.614	250.0	239.2	96	65-120
Lead	<1.610	100.0	87.67	88	62-120
Molybdenum	3.982	400.0	399.5	99	76-120
Nickel	4.739	500.0	465.3	92	65-120
Selenium	<2.501	100.0	98.84	99	67-127
Silver	<1.586	50.00	47.48	95	61-120
Thallium	<3.020	100.0	101.5	101	64-121
Vanadium	6.538	500.0	485.3	96	73-120
Zinc	<3.104	500.0	491.2	98	67-123

Type: MSD Lab ID: QC584121

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	500.0	508.0	102	67-120	2	20
Arsenic	100.0	146.9	100	70-132	3	28
Barium	2,000	1,874	93	72-120	1	26
Beryllium	50.00	49.34	99	78-121	1	20
Cadmium	50.00	46.26	93	69-122	1	23
Chromium	200.0	189.5	93	71-120	0	23
Cobalt	500.0	458.6	91	70-120	1	23
Copper	250.0	236.0	94	65-120	1	27
Lead	100.0	89.10	89	62-120	2	24
Molybdenum	400.0	401.8	99	76-120	1	24
Nickel	500.0	462.0	91	65-120	1	23
Selenium	100.0	96.22	96	67-127	3	28
Silver	50.00	47.25	95	61-120	0	25
Thallium	100.0	95.93	96	64-121	6	23
Vanadium	500.0	484.0	95	73-120	0	24
Zinc	500.0	485.0	97	67-123	1	25



Dissolved California Title 22 Metals					
Lab #:	226664	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD			
Project#:	241.082.02.001	Analysis: EPA 7470A			
Analyte:	Mercury	Diln Fac: 1.000			
Type:	BLANK	Batch#: 173021			
Lab ID:	QC584765	Prepared: 03/22/11			
Matrix:	Filtrate	Analyzed: 03/22/11			
Units:	ug/L				

Result	RL	
ND	0.20	

ND= Not Detected RL= Reporting Limit Page 1 of 1



Dissolved California Title 22 Metals						
Lab #:	226664	Location: 64th & Christie Emeryvill	e, CA			
Client:	PES Environmental, Inc.	Prep: METHOD				
Project#:	241.082.02.001	Analysis: EPA 7470A				
Analyte:	Mercury	Batch#: 173021				
Matrix:	Filtrate	Prepared: 03/22/11				
Units:	ug/L	Analyzed: 03/22/11				
Diln Fac:	1.000					

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584766	2.500	2.530	101	80-120		
BSD	QC584767	2.500	2.440	98	80-120	4	20



Dissolved California Title 22 Metals						
Lab #:	226664	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: METHOD				
Project#:	241.082.02.001	Analysis: EPA 7470A				
Analyte:	Mercury	Batch#: 173021				
Field ID:	ZZZZZZZZZ	Sampled: 03/10/11				
MSS Lab ID:	226517-015	Received: 03/10/11				
Matrix:	Filtrate	Prepared: 03/22/11				
Units:	ug/L	Analyzed: 03/22/11				
Diln Fac:	1.000					

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584768	<0.03335	2.500	2.630	105	79-120		
MSD	QC584769		2.500	2.560	102	79-120	3	20





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 226688 ANALYTICAL REPORT

PES Environmental, Inc. Project : 241.082.02.001

1682 Novato Boulevard Location: 64th & Christie Emeryville, CA

Novato, CA 94947 Level : II

Sample ID	Lab ID	Sample ID	Lab ID
SB-25-2.5	226688-001	SB-31-2.5	226688-015
SB-25-7.5	226688-002	SB-31-7.5	226688-016
SB-25-12.5	226688-003	SB-31-12.5	226688-017
SB-29-2.5	226688-004	SB-31-16.0	226688-018
SB-29-7.5	226688-005	SB-31-20.0	226688-019
SB-29-12.5	226688-006	SB-32-2.5	226688-020
SB-29-16.0	226688-007	SB-32-7.5	226688-021
SB-29-20.0	226688-008	SB-32-11.0	226688-022
SB-16-2.5	226688-009	SB-27-2.5	226688-023
SB-16-7.5	226688-010	SB-27-7.5	226688-024
SB-16-12.5	226688-011	SB-27-12.5	226688-025
SB-17-2.5	226688-012	SB-24-1.5	226688-026
SB-17-6.0	226688-013	SB-24-5.5	226688-027
SB-17-12.5	226688-014	SB-24-12.0	226688-028

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Date: 03/30/2011

Project Manager

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 226688

Client: PES Environmental, Inc.

Project: 241.082.02.001

Location: 64th & Christie Emeryville, CA

Request Date: 03/16/11 Samples Received: 03/16/11

This data package contains sample and QC results for twenty six soil samples, requested for the above referenced project on 03/16/11. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

High surrogate recoveries were observed for bromofluorobenzene (FID) in a number of samples. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

Matrix spikes QC584512,QC584513 (batch 172955) were not reported because the parent sample was reextracted in another batch. Low recoveries were observed for diesel C10-C24 in the MS/MSD of SB-20-1.5 (lab # 226712-001); the LCS was within limits, and the associated RPD was within limits. Low surrogate recoveries were observed for o-terphenyl in the MS/MSD of SB-20-1.5 (lab # 226712-001). Many samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

Matrix spikes were not performed for this analysis in batch 172953 due to insufficient sample amount. Matrix spikes were not performed for this analysis in batch 172973 due to insufficient sample amount. High surrogate recovery was observed for bromofluorobenzene in SB-29-12.5 (lab # 226688-006). A number of samples were diluted due to high hydrocarbons. SB-29-16.0 (lab # 226688-007) was not diluted; the low sample weight is due to 5035 packaging. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):

No analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

High recoveries were observed for barium and lead in the MS of SB-25-2.5 (lab # 226688-001); the BS/BSD were within limits. High RPD was observed for barium in the MS/MSD of SB-25-2.5 (lab # 226688-001); the RPD was acceptable in the BS/BSD. High recovery was observed for lead in the MSD of SB-13-2.5 (lab # 226637-021); the BS/BSD were within limits, and the associated RPD was within limits. High recovery was observed for mercury in the MSD of SB-25-2.5 (lab # 226688-001); the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

PES Environmental, Inc.
Engineering & Environmental Services

SAMPLERS: 4. Simmons J. Alcagndor

226688 1682 NOVATO BOULEVARD, SUITE 100

NOVATO, CALIFORNIA 94947							
(415) 899-1600	FAX (415) 899-1601						
ANALYSIS REQI	UESTED						

JOB NUMBER: 241. 082 02 601		,		(A)		
NAME/LOCATION: 64 TO EMBRYVILLE GA	in +Christia	Exerville (4		25 7 25 Sign (Sign)		
NAME / LOCATION: 64 H EWERYVILLE GAP PROJECT MANAGER: W. Mast	RECORDER:	K. Simmons		10 21 50B · VCCs 5/8015M 5M 2 · J/ 5/VCCs 115M 5 £ A 115M 5 £ A 115M 5 £ A		
DATE SAMPLE NUMBER / DESIGNATION YR MO DY TIME	Vapor Water Soil Sedim't	# of Containers & Preservatives	DEPTH SEET	EPA 5035/8010 EPA 5035/8021 EPA 5035/8260B · VCCs TPHg by 5035/8015M TPHd by 8015M 2 · V/C TPHmo by 8015M 2 · V/C EPA 8270C · S v C C s MNA Parameters (see notes) 83.60 BTEX T22 Metts · CO10B		
1110316082558-25 25	X	1 12		XXX		
0830 5B-25-7.5 0830 5B-25-7.5 0900 5B-29-2.5 0900 5B-29-12.5 0910 5B-29-12.5 0910 5B-29-20.0 0910 5B-10-2.5 0910 5B-10-7.5		2 4 4 4 4 2 2 2 2 2		X	L DJ.	*
		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		T V VW		
NOTES			CHAIN OF C	USTODY RECORD		
Turn Around Time: Standard TAT - please retain samples after of for potential suture STLC/10	valysis LP	RELINQUISHED BY: (Signature) RELINQUISHED BY: (Signature)	111	D BY (Signature) D BY: (Signature)	DATE 3/14/11 DATE	TIME 1630 TIME
* please (HOLD) 38-29-20.0		RELINQUISHED BY: (Signature)	RECEIVED	D BY: (Signature)	DATE	TIME
		RELINQUISHED BY: (Signature)	RECEIVE	D BY: (Signature)	DATE	TIME
		DISPATCHED BY: (Signature)	DATE TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
Page of		METHOD OF SHIPMENT:				
•	WHITE-I	aboratory COPY YELLOW-Project Office Conv. PIN	IK Field or Office Com.			

PES Environmental, Inc.
Engineering & Environmental Services

CHAIN OF CUSTODY RECORD

276688 1682 NOVATO BOULEVARD, SUITE 100

NOVATO, CALIFORNIA 94947 (415) 899-1600 FAX (415) 899-1601

LABORATORY:	SAMPLERS:	P. DIMM	9019/07 F	stevin A	EV	ANALYSIS R	REQUESTED	
JOB NUMBER: 241.082.02.001,						X		
NAME/LOCATION: 64th + Christic / Emer	I ville, CA				-	TEX File File File File File File File File		
JOB NUMBER: 241.082.02.001, NAME/LOCATION: 64th + Christic/Emere PROJECT MANAGER: W. Wast	RECORDER:	L. Sim	mons			M2115 S S S S S S S S S S S S S S S S S S		
DATE SAMPLE NUMBER /	MATRIX	,	# of Containers & Preservatives	DEF	ты	3/8010 3/8021 3/8260B 5035/80 8015M 7 8015M 9 1C		
YR MO DY TIME DESIGNATION	Vapor Water Soil Sedim't	Unpres. EnCore H ₂ SO ₄	Methans!	1 1 4	ET	EPA 5035/8010 EPA 5035/8021 EPA 5035/8020 EPA 5035/8060 - E F E X TPHg by 5035/8015M TPHd by 8015M Z */ TPHmo by 8015M Z */ TPHm by 8015M Z */ EPA 8270C MNA Parameters (see notes)		
3 11 03 1 61 0 15 58 17 - 7.5	X	1	12			XXXX		
4111110205B-V7-125			12					
1110068-31-25			4			X		
16 11 11 105 5B-31-75						X		
7 110 SB-31-125			4			X		
18 11 11 558-31 16.0			4			X		
9 11 20 53 - 31 - 20.0			14			X	[HO40]*	
2 11 12 05 5 B-32-25			2					
121053-32-75			2					
2 1 2 1 5 58 - 32 - 11.0			2					
3 3 5 0 5 3 - 27 - 2,5			2	,				
7 V V V V V V V V V S S S S S S S S S S			12			VVV		
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NOTES Turn Around Time: Standard TAT		RELINQUISHED BY: (S	igrature)	CHA	RECEIYED E	STODY RECORD BY: (Signature)	DATE,	TIME
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- please retain samples after analy potential Suture STLC/TCLP	1515 for	RELINATION HED BY (S	ignature		AECEIVED E	BY ([stopptuse)	DATE	TIME
portial Suture STLC/TCLP		RELINQUISHED BY: (S	iignature)		RECEIVED E	3Y: (Signature)	DATE	TIME
*-planx [HOLD] 5B-31-20 0		RELINQUISHED BY: (S	ignature)		RECEIVED E	3Y: (Signature)	DATE	TIME
		DISPATCHED BY: (Signa	ature)	DATE	TIME F	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
		METHOD OF SHIPME	NT:		L I			L
Page Z of Ŋ	MARTE L		***					

PES Environmental, Inc.
Engineering & Environmental Services

CHAIN OF CUSTODY RECORD

ZZ668 1682 NOVATO BOULEVARD, SUITE 100 NOVATO, CALIFORNIA 94947

(415) 899-1600 FAX (415) 899-1601 SAMPLERS: K. Simmons J. Alexander ANALYSIS REQUESTED JOB NUMBER: 241. U 82. 02.001,
NAME/LOCATION: 64th + Christie / Emeryville, CA MNA Parameters (see notes)
T22 Metals - (CON) B PROJECT MANAGER: W. NOST K. Simmons TPHg by 5035/8015M TPHd by 8015M 2 TPHmo by 8015M. # of Containers EPA 5035/8021 EPA 5035/8260E EPA 5035/8010 MATRIX DATE & Preservatives DEPTH/ SAMPLE NUMBER / **EPA 8270C** Methanol EnCore H₂SO₄ HNO₃ HCI DESIGNATION Sedim't Unpres. まず Vapor Water YR MO DY TIME Soil **NOTES CHAIN OF CUSTODY RECORD** Turn Around Time: Standard TAT TIME please retain samples after analysis for possible suture STLL/TCLT RELINQUISHED BY: (Signature) RECEIVED BY: (Signature) DATE TIME RELINQUISHED BY: (Signature) RECEIVED BY: (Signature) DATE TIME DISPATCHED BY: (Signature) DATE RECEIVED FOR LAB BY: (Signature) DATE TIME Ω METHOD OF SHIPMENT: **3** of

COOLER RECEIPT CHECKLIST



Login # 27688 Date Received 3/16/11 Number of coolers of Client PES Project 64# & CHRISTIR	Z
Client PES Project 64 # 4 CHRISTIE	
Date Opened 3/14/1 By (print) MNILLANGE (sign) Date Logged in 2/7/11 By (print) (sign)	
1. Did cooler come with a shipping slip (airbill, etc) YES Shipping info	9
2A. Were custody seals present? \(\text{YES} \) (circle) on cooler on samples \(\text{How many} \) Name \(\text{Date} \) 2B. Were custody seals intact upon arrival? \(\text{YES} \) NOT \(\text{YES} \) NOT \(\text{YES} \) Were custody papers dry and intact when received? \(\text{YES} \) NOT \(\text{YES} \) NOT \(\text{YES} \) Is the project identifiable from custody papers? (If so fill out top of form) \(\text{YES} \) NOT \(\text{NOT} \) Indicate the packing in cooler: (if other, describe))
☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels 7. Temperature documentation:	
Type of ice used: ☐ Wet ☐ Blue/Gel ☐ None Temp(°C)	
Samples Received on ice & cold without a temperature blank	
☐ Samples received on ice directly from the field. Cooling process had begun	
8. Were Method 5035 sampling containers present? If YES, what time were they transferred to freezer? Outs. Economics 9. Did all bottles arrive unbroken/unopened?	NO .
10. Are samples in the appropriate containers for indicated tests?	NO
11. Are sample labels present, in good condition and complete?	NO
12. Do the sample labels agree with custody papers?	NO
13. Was sufficient amount of sample sent for tests requested?	NO
14. Are the samples appropriately preserved?	N/A
15. Are bubbles > 6mm absent in VOA samples? YES NO 16. Was the client contacted concerning this sample delivery? YES	
If YES, Who was called? By Date:	N G
COMMENTS	
	· · · · · · · · · · · · · · · · · · ·

SOP Volume: Client Services

Section:

1.1.2

Page:

1 of 1

Rev. 6 Number 1 of 3

Effective: 23 July 2008 Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc

Desiree Tetrault

From:

"Chris Baldassari" <cbaldassari@pesenv.com>

To:

"Desiree Tetrault" <desiree.tetrault@ctberk.com>; "Ken Simmons" <KSimmons@pesenv.com>

Sent:

Monday, March 21, 2011 12:56 PM

Subject:

RE: 241.082 adjustments

Hi Desiree,

We don't need gravity separation for the sample, but would like silica-gel cleanup performed; please no reporting/analysis for without silica gel.

The digestion fee on analyses started already sounds fair to me; we just want to be clear on which ones shouldn't have metals reported (indicated in the COCs sent by Kenny)

Thanks, Chris

From: Desiree Tetrault [mailto:desiree.tetrault@ctberk.com]

Sent: Monday, March 21, 2011 12:52 PM

To: Ken Simmons **Cc:** Chris Baldassari

Subject: Re: 241.082 adjustments

Hey Ken and Chris- thanks for the update. There shouldn't be any problems changing the IDs and the requests for analyses, although for logins 226688 and 226712 we have already prepped the samples for the metals. I can remove the analyses that you listed, but will have to charge a \$10 digestion fee for the ones already started.

Could you confirm that you do or do not need gravity separation for the last water sample (226732-001) submitted on Friday? Also, do you need the results to be reported with and without silica gel cleanup?

Thank you and please feel free to call with any questions.

Desirée Tétrault Project Manager Curtis and Tompkins, Ltd 2323 Fifth Street Berkeley CA 94710 510.204.2221

www.curtisandtompkins.com

---- Original Message ----- From: Ken Simmons

To: desiree.tetrault@ctberk.com

Cc: Chris Baldassari

Sent: Monday, March 21, 2011 10:58 AM

Subject: 241.082 adjustments

Morning Desiree -

After reviewing the log-in sheets and COCs, there are a few adjustments to sample names and analysis that we would like to see.

PES Environmental. Inc. Engineering & Environmental Services LABORATORY: C+1 JOB NUMBER: 241. 082.02.001 NAME / LOCATION: C+4 + Enveryville C6+1 PROJECT MANAGER: W. Must	SAMPLERS:			(415) 899-1600 F ANALYSIS REQUE	EVARD SUITE 100 FORNIA 94947 FAX (415) 899-1601
DATE SAMPLE NUMBER / DESIGNATION TIME 11 03 1 6 08 2 5 58 25 2.5	MATRIX	# of Containers & Preservatives	DEPTH	EPA 5035/8010 EPA 5035/8021 EPA 5035/8021 EPA 5035/8020 TPHIG by 5035/8015M TPHIG by 8015M TPHIG by 8015M TPHIG by 8015M SOL EPA 8270C - SVDCS MAN Parameters (see notes) 82.CO B TEX TPLIC B TEX	
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1			Q _8 0LD#
NOTES Turn Around Time: Standard TAT - please retain samples after a Scr potential suture STLC/Tel * please [HOLD] 5B-29-20.0 Page 1 of 7	valysis LP	RELINCUISHED BY: (Symphon) RELINCUISHED BY: (Symphon) RELINCUISHED BY: (Symphon) DISPATCHED BY: (Symphon) METHOD OF SHIPMENT:	PECEIVED B	SY (Signatura)	DATE TIME 3/11/11/13/0 DATE TIME DATE TIME DATE TIME DATE TIME

PES Environmental, Inc. Engineering & Environmental Services	СНА	IN OF CUSTODY	RECORE	27668 1682 NOVATO BOULD	EVARD, SUITE 100
		/		NOVATO, CALIF (415) 899-1600 FA	
LABORATORY: C+	SAMPLERS:	K. Simmons J. A	Hexander	ANALYSIS REQUES	STED
JOB NUMBER: 241.082.02.001,					
NAME/LOCATION: 64th + Christic / Emere	1 ville, CA		•	M W W W W W W W W W W W W W W W W W W W	
PROJECT MANAGER: Wa5+	RECORDER: _	K. Simmons		15 KASAA (300 mg/s)	
DATE	MATRIX	# of Containers & Preservatives	2527	0010 0021 22608 335/80 335/80 315M 9015M	
YR MO DY TIME SAMPLE NUMBER / DESIGNATION 9 03	Vapor Water Soil Sedim't	Unpres. Encore H-SO4 HNO3 HCI (-3, \$E4	DEPTH	EPA 5035/8010 EPA 5035/8010 EPA 5035/8084	
7 11 03 1 41 015 58 17-7.5 60	X	1 12	 		+++++
14 1111111020 58-17-125		1 1 2	 		++++
15 11 100 58-31-25				x	++++
12 11 10 5 5 8 - 31 - 75			 		
4 111 11 D SB-31-12-5			+++++		CB
8 11 11 5 38 31 16.0		1 4	 		
19 11 1 20 5B-31-20.0			++++		2407K
20 120558-82-25			++++		771
3 1210 5B-32-75			+		
121558-32-1.0		 	┿╼╊╼┾╌┥╼┟╼┨		++++
3 13 5 05 3 - 27 - 25	 	╃╾╂╂┼╾┼┈┼╾╢╼┼╂╂╶┼┈┽═┼╸	++++		++++
4 1 1 1 1 1 3 5 5 5 R - 27 - 7 5		 	+++++		
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		RELINATION FED BY Storens	f1	1/92	3/16/11/1630
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potential Little STLC/TCLP	- W	RELINQUISHED BY: (Signature)	RECEIVED	BY: (Signature)	DATE TIME
*-plack[HOLD] 5B-31-20.0		RELINGUISHED BY: (Signature)	RECEIVED	BY: (Sepreture)	DATE TIME
		DISPATCHED BY: (Signature)	DATE TIME	RECEIVED FOR LAB BY: (Bigmakes)	DATE TIME
Page 2 of 7		METHOD OF SHIPMENT:		***************************************	<u></u>
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PES Environmental, Inc. Engineering & Environmental Services		IN OF CUSTODY F		HOVATO, CALI	ORNIA 9494	47
LABORATORY:	SAMPLERS:	Simmony J. Ale	conser	ANALYSIS REQUE	STED	
JOB NUMBER: 241. 0 82. 02.001						\prod
NAME/LOCATION: 64th + Circistre / Emery	ille, CA			252 2500)		
PROJECT MANAGER: W. NAST	RECORDER:	K. Simmens				
DATE	MATRIX	# of Containers & Preservatives		035/8010 035/8021 035/8021 035/822608 by 5035/8015M by 8015M 2 to by 8015M 1270C Parameters (see		
YR MO DY TIME SAMPLE NUMBER / DESIGNATION	Vapor Water Soil Sedim't	Unpress. Enclore Heso. HHO. HCI Meltanol LASK	DEPTH IN FRET	EPA 5035/8010 EPA 5035/8010 EPA 5035/8021 EPA 5035/80208 TPHg by 5035/8015/A TPHmo by 8015/A TPHmo by 8015/A SSC EPA 8270C MINA Parameters (see notes)		
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24 111111151038-24-2013			1+++		++-	++
27 11 11 15 15 58-24-555	· 	 		╶ ┨╏ ╏╏╏╏ ┼┼┼┼┼		+
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Page 2 of 3		METHOD OF SHIPMENT:	<u>i</u>	.		

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Location: 64th & Christie Emeryville, CA Prep: EPA 5035 Lab #: 226688

Client: Prep: PES Environmental, Inc. Project#: 241.082.02.001 Analysis: EPA 8015B

Matrix: Soil Sampled: 03/16/11 03/16/11 Units: mg/Kg Received:

Basis: as received

Field ID: SB-25-2.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172931 Lab ID: 03/18/11 226688-001 Analyzed:

Analyte Result RL

Gasoline C7-C12 ND 0.17

Surrogate %REC Limits Bromofluorobenzene (FID) 108 67-140

Field ID: SB-25-7.5 Diln Fac: 1.000 SAMPLE Batch#: 172931 Type: Lab ID: 226688-002 Analyzed: 03/18/11

Analyte Result

ND Gasoline C7-C12 0.18

%REC Limits Surrogate Bromofluorobenzene (FID) 67-140

1.000 Field ID: SB-25-12.5 Diln Fac: Type: SAMPLE Batch#: 172931 03/18/11 Lab ID: 226688-003 Analyzed:

Analyte Result Gasoline C7-C12 0.53 0.18

Surrogate %REC Limits Bromofluorobenzene (FID)

SB-29-2.5 20.00 Field ID: Diln Fac: Type: SAMPLE Batch#: 172985 Lab ID: 226688-004 Analyzed: 03/21/11

Analyte Result Gasoline C7-C12 710 Y

Surrogate %REC Limits Bromofluorobenzene (FID)

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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46 2



Lab #: 226688 Location: 64th & Christie Emeryville, CA

Client: PES Environmental, Inc. EPA 5035 Prep: Project#: 241.082.02.001 Analysis: EPA 8015B

Sampled: Matrix: Soil 03/16/11 Units: mg/Kg Received: 03/16/11

Basis: as received

Field ID: SB-29-7.5 Diln Fac: 1,000 172998 Type: SAMPLE Batch#: 226688-005 Lab ID: Analyzed: 03/22/11

Result Analyte

Gasoline C7-C12 9,700 Y 1,000

Limits Surrogate %REC Bromofluorobenzene (FID) 111 67-140

SB-29-12.5 Field ID: Diln Fac: 1.000 Type: SAMPLE Batch#: 172985 Lab ID: 226688-006 03/21/11 Analyzed:

Analyte Result RLGasoline C7-C12 2.6 Υ 0.25

%REC Limits Surrogate Bromofluorobenzene (FID)

Field ID: SB-29-16.0 Diln Fac: 1.000 SAMPLE 172985 Type: Batch#: Lab ID: 226688-007 03/21/11 Analyzed:

Result Analyte Gasoline C7-C12 ND 0.18

%REC Limits Surrogate Bromofluorobenzene (FID)

Field ID: SB-16-2.5 Diln Fac: 1.000 SAMPLE Batch#: 172931 Type: Lab ID: 226688-009 03/18/11

Analyte Result RLGasoline C7-C12 ND 0.15

Analyzed:

Surrogate %REC Limits Bromofluorobenzene (FID) 114

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 2 of 8



Lab #: 226688 Location: 64th & Christie Emeryville, CA

Client: PES Environmental, Inc. EPA 5035 Prep: Project#: 241.082.02.001 Analysis: EPA 8015B

Sampled: Matrix: Soil 03/16/11 Units: mg/Kg Received: 03/16/11

Basis: as received

Field ID: SB-16-7.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172931 226688-010 Lab ID: Analyzed: 03/18/11

Result Analyte

Gasoline C7-C12 ND 0.19

Limits Surrogate %REC Bromofluorobenzene (FID) 111 67-140

Field ID: SB-16-12.5 Diln Fac: 1.000 SAMPLE Type: Batch#: 172931 Lab ID: 226688-011 03/18/11 Analyzed:

ND

Analyte Result RL

%REC Limits Surrogate

0.15

Bromofluorobenzene (FID) 106

Field ID: SB-17-2.5 Diln Fac: 1.000 SAMPLE 172931 Type: Batch#: 03/19/11 226688-012 Lab ID: Analyzed:

Analyte Result Gasoline C7-C12 ND 0.16

%REC Limits Surrogate Bromofluorobenzene (FID) 67-140

Field ID: SB-17-6.0 Diln Fac: 1.000 SAMPLE Batch#: 172931 Type: Lab ID: 226688-013 03/19/11 Analyzed:

Analyte Result RLGasoline C7-C12 ND 0.18

%REC Limits Surrogate Bromofluorobenzene (FID)

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

Gasoline C7-C12

RL= Reporting Limit

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Lab #: 226688 Location: 64th & Christie Emeryville, CA

Client: PES Environmental, Inc. EPA 5035 Prep: Project#: 241.082.02.001 Analysis: EPA 8015B

Sampled: Matrix: Soil 03/16/11 Units: mg/Kg Received: 03/16/11

Basis: as received

Field ID: SB-17-12.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172931 226688-014 Lab ID: Analyzed: 03/19/11

Result Analyte Gasoline C7-C12 ND 0.17

Limits Surrogate %REC Bromofluorobenzene (FID) 112 67-140

Field ID: SB-31-2.5 Diln Fac: 1.000 SAMPLE Type: Batch#: 172931 Lab ID: 226688-015 03/19/11 Analyzed:

Analyte Result RLGasoline C7-C12 ND 0.17

%REC Limits Surrogate

Bromofluorobenzene (FID) 113

Field ID: SB-31-7.5 Diln Fac: 1.000 SAMPLE 172985 Type: Batch#: Lab ID: 226688-016 03/21/11 Analyzed:

Result Analyte Gasoline C7-C12 6.2 Y 0.15

%REC Limits Surrogate

Bromofluorobenzene (FID) 136

SB-31-12.5 100.0 Field ID: Diln Fac: SAMPLE Batch#: 172985 Type: 03/22/11 Lab ID: 226688-017 Analyzed:

Analyte Result RLGasoline C7-C12 1,600 Y 100

Surrogate %REC Limits Bromofluorobenzene (FID) 134

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226688 Location: 64th & Christie Emeryville, CA

 Client:
 PES Environmental, Inc.
 Prep:
 EPA 5035

 Project#:
 241.082.02.001
 Analysis:
 EPA 8015B

 Matrix:
 Soil
 Sampled:
 03/16/11

 Units:
 mg/Kg
 Received:
 03/16/11

Basis: as received

Field ID: SB-31-16.0 Type: SAMPLE Lab ID: 226688-018 Diln Fac: 100.0 Batch#: 172985 Analyzed: 03/22/11

 Analyte
 Result
 RL

 Gasoline C7-C12
 460 Y
 100

Surrogate %REC Limits

Surrogate%RECLimitsBromofluorobenzene (FID)12067-140

Field ID: SB-32-2.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172985 Lab ID: 226688-020 Analyzed: 03/22/11

Analyte Result RL

Gasoline C7-C12 ND 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 103 67-140

Field ID: SB-32-7.5 Diln Fac: 1.000
Type: SAMPLE Batch#: 172931
Lab ID: 226688-021 Analyzed: 03/19/11

Analyte Result RL
Gasoline C7-C12 3.1 Y 0.19

Surrogate %REC Limits
Bromofluorobenzene (FID) 128 67-140

Field ID: SB-32-11.0 Diln Fac: 1.000 Type: SAMPLE Batch#: 172931 Lab ID: 226688-022 Analyzed: 03/19/11

 Analyte
 Result
 RL

 Gasoline C7-C12
 2.3 Y
 0.19

Surrogate %REC Limits
Bromofluorobenzene (FID) 125 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Location: 64th & Christie Emeryville, CA Lab #: 226688

Client: PES Environmental, Inc. EPA 5035 Prep: Project#: 241.082.02.001 Analysis: EPA 8015B

Sampled: Matrix: Soil 03/16/11 03/16/11

Units: mg/Kg Received: Basis: as received

Field ID: SB-27-2.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172985 226688-023 Lab ID: Analyzed: 03/21/11

Result Analyte

Gasoline C7-C12 0.90 Y 0.19

Limits Surrogate %REC Bromofluorobenzene (FID) 117 67-140

SB-27-7.5 Field ID: Diln Fac: 1.000 Type: SAMPLE Batch#: 172985 Lab ID: 226688-024 03/21/11 Analyzed:

Analyte Result RLGasoline C7-C12 0.46 Y 0.16

%REC Limits Surrogate

104 67-140 Bromofluorobenzene (FID)

Field ID: SB-27-12.5 Diln Fac: 1.000 SAMPLE 172985 Type: Batch#: Lab ID: 226688-025 03/21/11 Analyzed:

Analyte Result Gasoline C7-C12 4.7 0.15

%REC Limits Surrogate Bromofluorobenzene (FID)

20.00 Field ID: SB-24-1.5 Diln Fac: SAMPLE Batch#: 173026 Type: 03/22/11 Lab ID: 226688-026 Analyzed:

Analyte Result RLGasoline C7-C12 560 Y 2.0

%REC Limits Surrogate Bromofluorobenzene (FID) 259 *

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit Page 6 of 8



03/18/11

Gasoline by GC/FID (5035 Prep)

Lab #: 226688 Location: 64th & Christie Emeryville, CA

Client: PES Environmental, Inc. Prep: EPA 5035 Project#: 241.082.02.001 Analysis: EPA 8015B

 Matrix:
 Soil
 Sampled:
 03/16/11

 Units:
 mg/Kg
 Received:
 03/16/11

Basis: as received

 Field ID:
 SB-24-5.5
 Diln Fac:
 1.000

 Type:
 SAMPLE
 Batch#:
 173026

 Lab ID:
 226688-027
 Analyzed:
 03/22/11

Analyte Result RL

Gasoline C7-C12 1.2 Y 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 150 * 67-140

Field ID: SB-24-12.0 Diln Fac: 1.000 Type: SAMPLE Batch#: 173026 Lab ID: 226688-028 Analyzed: 03/22/11

Analyte Result RL
Gasoline C7-C12 0.79 0.18

Surrogate %REC Limits
Bromofluorobenzene (FID) 110 67-140

Type: BLANK Batch#: 172931

Lab ID: QC584419 Diln Fac: 1.000

Analyte Result RL

Gasoline C7-C12 ND 0.20

Analyzed:

Surrogate %REC Limits
Bromofluorobenzene (FID) 88 67-140

Type: BLANK Batch#: 172985
Lab ID: QC584624 Analyzed: 03/21/11
Diln Fac: 1.000

DIIII Fac. 1.000

Analyte Result RL
Gasoline C7-C12 ND 0.20

Surrogate %REC Limits
Bromofluorobenzene (FID) 101 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 7 of 8



Gasoline by GC/FID (5035 Prep)

Location: 64th & Christie Emeryville, CA 226688 Lab #:

EPA 5035 Client: PES Environmental, Inc. Prep: Project#: 241.082.02.001 EPA 8015B

Analysis: Sampled: 03/16/11 Matrix: Soil Units: mg/Kg Received: 03/16/11

Basis: as received

Type: BLANK Batch#: 172998 Lab ID: 03/21/11 QC584677 Analyzed:

Diln Fac: 1.000

Analyte Result Gasoline C7-C12 ND 0.20

Limits Surrogate %REC

Bromofluorobenzene (FID) 67-140

Type: BLANK Batch#: 173026 Lab ID: QC584791 Analyzed: 03/22/11

Diln Fac: 1.000

Result Analyte RL Gasoline C7-C12 ND 0.20

%REC Limits Surrogate Bromofluorobenzene (FID) 95 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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	Gasoline by GC/FID (5035 Prep)							
Lab #:	226688	Location: 64th & Christie Emeryville, CA						
Client:	PES Environmental, Inc.	Prep: EPA 5035						
Project#:	241.082.02.001	Analysis: EPA 8015B						
Matrix:	Soil	Batch#: 172931						
Units:	mg/Kg	Analyzed: 03/18/11						
Diln Fac:	1.000							

Type: BS Lab ID: QC584417

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.020	102	79-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	106	67-140	

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	0.9874	99	79-121	3	23

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	67-140



	Gasoline by GC/FID (5035 Prep)							
Lab #:	226688	Location: 64th & Christie Emeryville, CA						
Client:	PES Environmental, Inc.	Prep: EPA 5035						
Project#:	241.082.02.001	Analysis: EPA 8015B						
Matrix:	Soil	Batch#: 172985						
Units:	mg/Kg	Analyzed: 03/21/11						
Diln Fac:	1.000							

Type: BS Lab ID: QC584622

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.019	102	79-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	110	67-140	

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	0.9892	99	79-121	3	23

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	106	67-140



	Gasoline by GC/FID (5035 Prep)							
Lab #:	226688	Location: 64th & Christie Emeryville, CA						
Client:	PES Environmental, Inc.	Prep: EPA 5035						
Project#:	241.082.02.001	Analysis: EPA 8015B						
Matrix:	Soil	Batch#: 172998						
Units:	mg/Kg	Analyzed: 03/21/11						
Diln Fac:	1.000							

Type: BS Lab ID: QC584675

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.057	106	79-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	105	67-140	

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	1.063	106	79-121	1	23

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	67-140



Gasoline by GC/FID (5035 Prep)						
Lab #:	226688	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5035				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Matrix:	Soil	Batch#: 173026				
Units:	mg/Kg	Analyzed: 03/22/11				
Diln Fac:	1.000					

Type: BS Lab ID: QC584789

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.090	109	79-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	98	67-140	

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	1.068	107	79-121	2	23

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	99	67-140	



Gasoline by GC/FID (5035 Prep)						
Lab #:	226688	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Field ID:	ZZZZZZZZZ	Diln Fac: 1.000				
MSS Lab ID:	226779-001	Batch#: 173026				
Matrix:	Soil	Sampled: 03/22/11				
Units:	mg/Kg	Received: 03/22/11				
Basis:	as received	Analyzed: 03/22/11				

Type: MS Lab ID: QC584792

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.06573	10.87	8.713	80	41-120

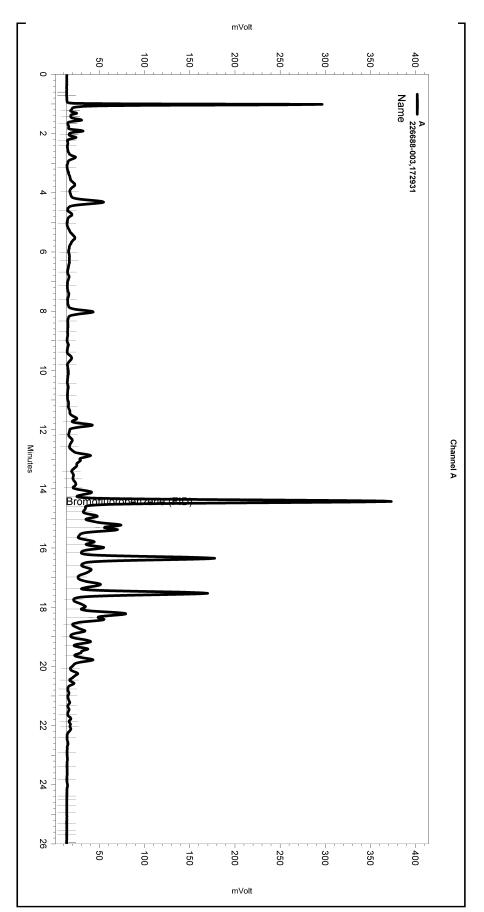
Surrogate %REC Li	imits
Bromofluorobenzene (FID) 101 67	7-140

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.53	8.924	84	41-120	6	47

Sample Name: 226688-003,172931

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\077-008 |
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) |
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

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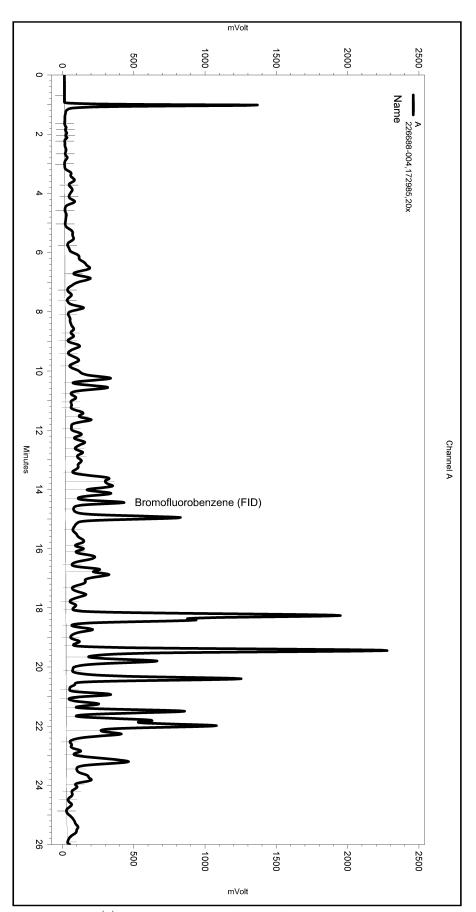
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Enabl	ed Event Type	Start			linutes)	Value
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Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\080-012

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/21/2011 7:45:40 PM Analysis Date: 3/21/2011 8:15:08 PM Sample Amount: 5 Multiplier: 5

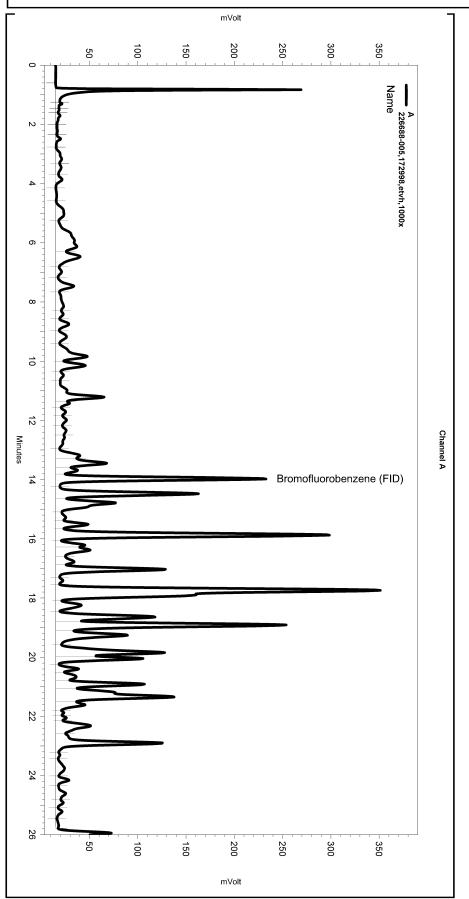


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Manual Integration Fixes	
Data File: C:\Documents and Set Data\ChromatographySystem\Rec Data\Instrument.10047\080-012_ Sta	covery 70C1.tmp
Enabled Event Type	(Minutes) (Minutes) Valu
None	

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq Sample Name: 226688-005,172998,etvh,1000x
Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-030

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-030 \\
Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) \\
Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe068.met

Software Version 3.1.7 Run Date: 3/22/2011 1:17:51 PM Analysis Date: 3/23/2011 2:34:39 PM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: a,dc275



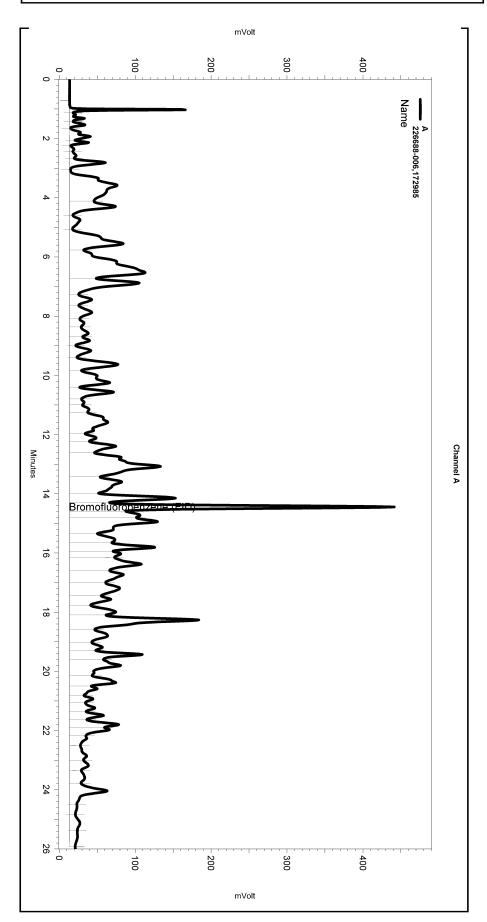
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Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\080.seq

Sample Name: 226688-006,172985

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\080-014 |
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) |
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/21/2011 9:01:36 PM Analysis Date: 3/22/2011 5:35:21 PM Sample Amount: 4.02 Multiplier: 4.02



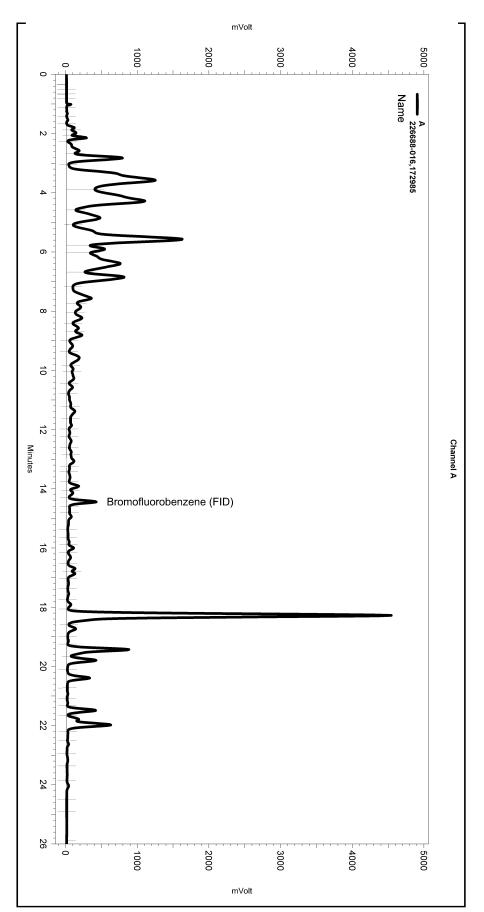
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Yes Lowest Point Horizontal B	aseli	0.648	25.95	2 (

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\080.seq

Sample Name: 226688-016,172985

Software Version 3.1.7 Run Date: 3/21/2011 11:32:53 PM Analysis Date: 3/22/2011 10:49:57 AM Sample Amount: 6.63 Multiplier: 6.63

Vial & pH or Core ID: d

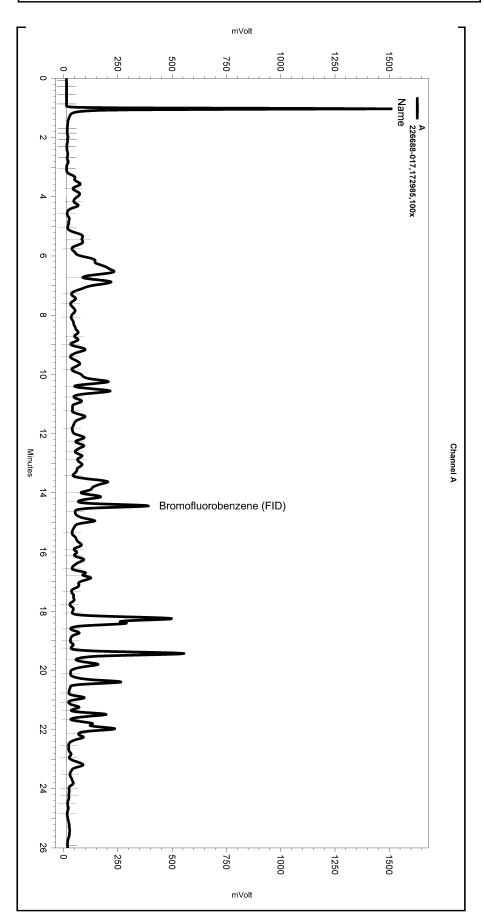


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Enabled Event Type	(Minutes) (Minutes) Value
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Page 2 of 4 (2)

Sample Name: 226688-017,172985,100x

Software Version 3.1.7 Run Date: 3/22/2011 12:11:09 AM Analysis Date: 3/22/2011 5:37:05 PM Sample Amount: 1 Multiplier: 1



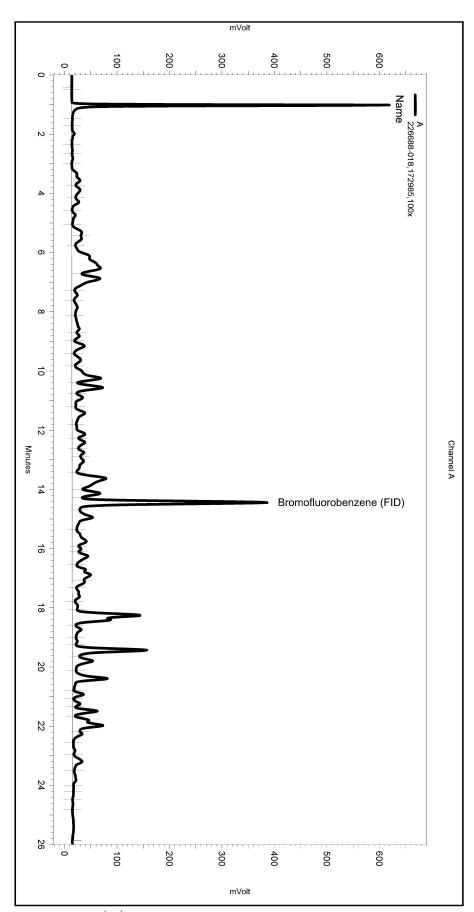
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	Enabled	d Event Type				linutes)	Value
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Sample Name: 226688-018,172985,100x

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\080-020

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/22/2011 12:48:49 AM Analysis Date: 3/22/2011 1:18:17 AM Sample Amount: 1 Multiplier: 1



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Enabled Event Type Yes Width	(Minutes) (Minutes) Value 0 0 0.2
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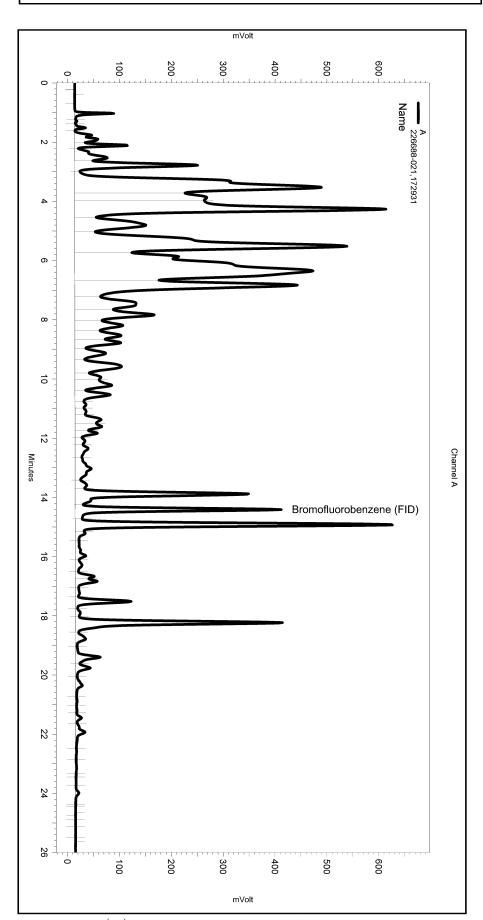
Sample Name: 226688-021,172931

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\077-026

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/19/2011 6:57:25 AM

Analysis Date: 3/19/2011 7:26:53 AM Sample Amount: 5.25 Multiplier: 5.25



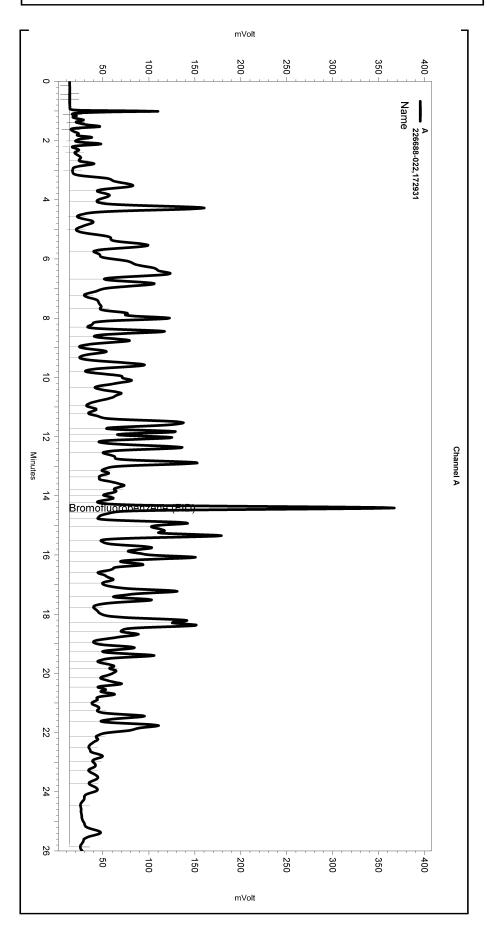
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Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\077.seq

Sample Name: 226688-022,172931

Data File: \\Lims\\gdrive\ezchrom\\Projects\\GC04\\Data\\077-027\\Instrument: GC04 \(Offline\) \ Vial: \(N/A\) \ Operator: \(Tvh 1. \) \ Analyst \((lims2k3\\tvh1)\) \ Method \(Name: \\Lims\\gdrive\ezchrom\\Projects\\GC04\\Method\\tvhbtxe061.met\)

Software Version 3.1.7 Run Date: 3/19/2011 7:34:58 AM Analysis Date: 3/21/2011 12:17:11 PM Sample Amount: 5.34 Multiplier: 5.34



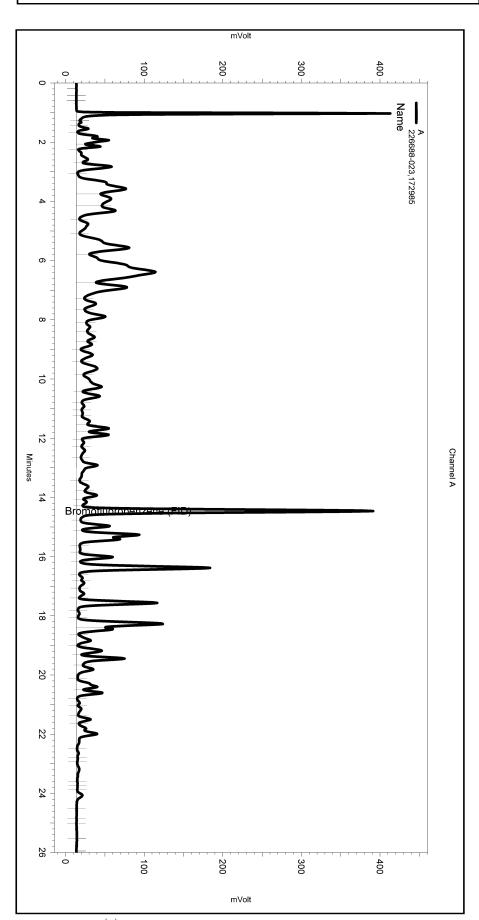
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Yes Yes Manual Data	Width Threshold Integration Fixes	(Minut 0 0 0 nrom\Projects Start Sto	ies) (M 	0.2 50	7-027

Sample Name: 226688-023,172985

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\080-006

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/21/2011 3:56:15 PM Analysis Date: 3/21/2011 4:25:44 PM Sample Amount: 5.28 Multiplier: 5.28



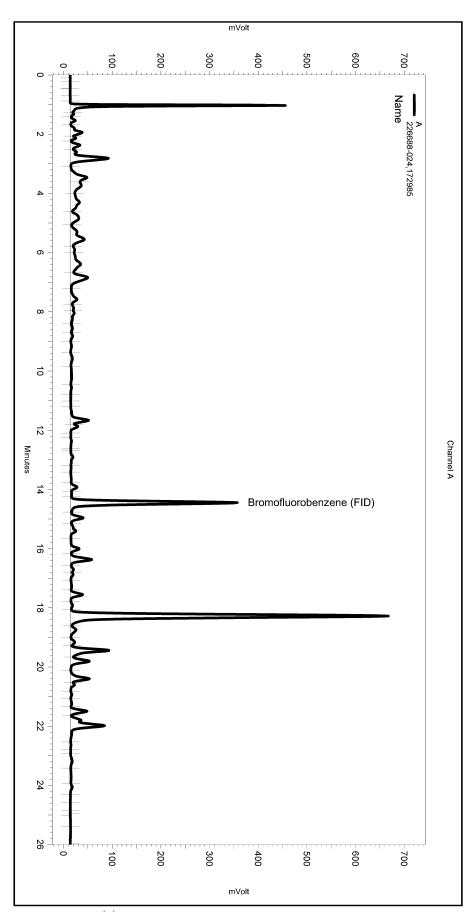
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Enabled Event Type Yes Width Yes Threshold Manual Integration Fixes Data File: C:\Documents and Sett Data\ChromatographySystem\Reco Data\Instrument.10047\080-006_70	(Minutes) (Minutes) Valu 0 0 0.2 0 0 50 tings\All Users\Application overy 0BB.tmp

Sample Name: 226688-024,172985

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\080-007

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/21/2011 4:35:36 PM Analysis Date: 3/21/2011 5:05:07 PM Sample Amount: 6.31 Multiplier: 6.31



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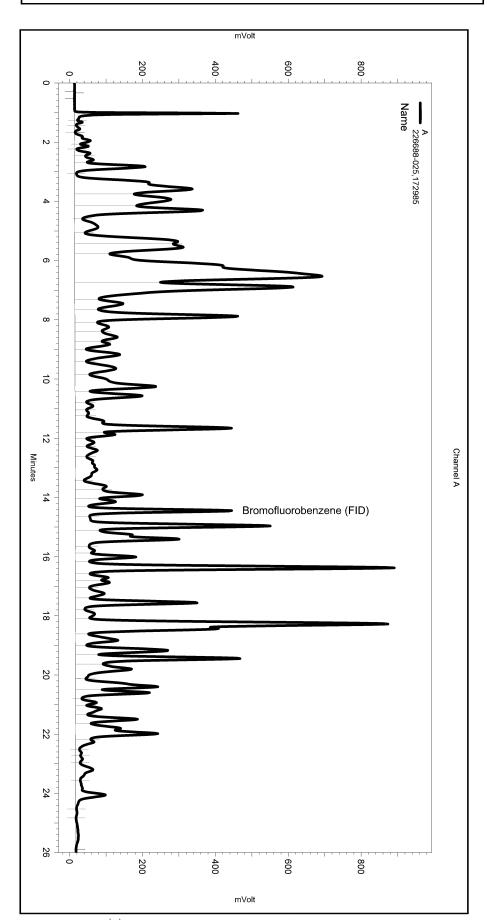
Sample Name: 226688-025,172985

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Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/21/2011 5:13:36 PM Analysis Date: 3/21/2011 5:43:03 PM

Sample Amount: 6.59 Multiplier: 6.59



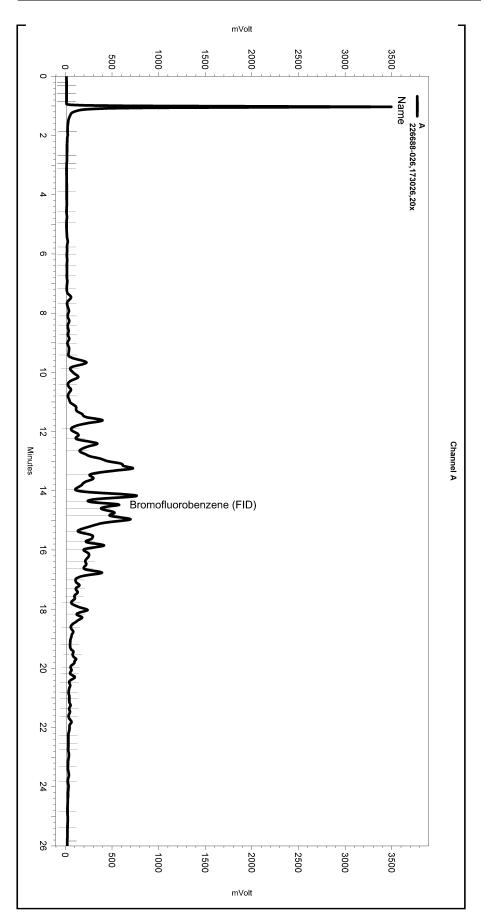
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Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\081.seq

Sample Name: 226688-026,173026,20x

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\081-006 |
Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) |
Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/22/2011 5:28:00 PM Analysis Date: 3/23/2011 2:54:09 PM Sample Amount: 1 Multiplier: 1



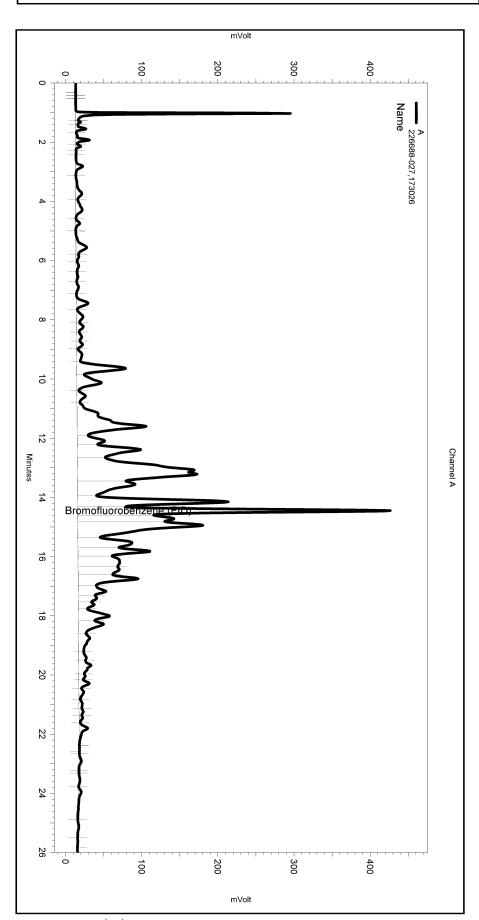
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Sample Name: 226688-027,173026

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\081-008

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/22/2011 6:43:41 PM Analysis Date: 3/22/2011 7:13:09 PM Sample Amount: 5.73 Multiplier: 5.73



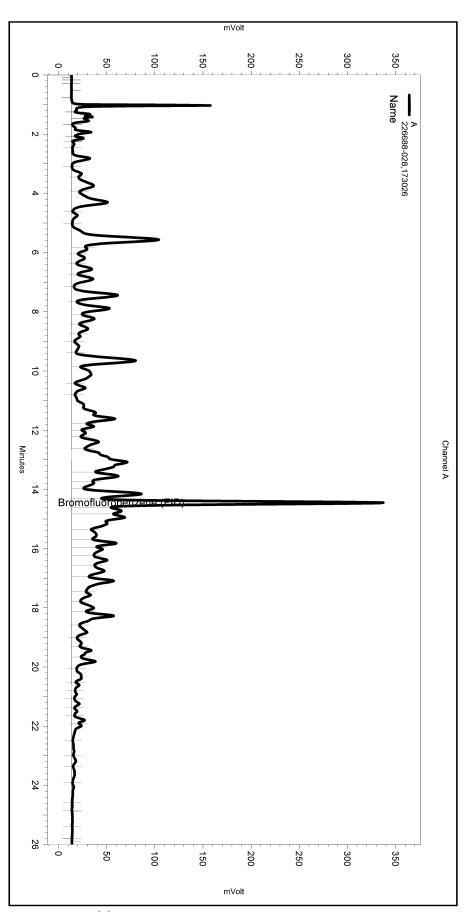
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Sample Name: 226688-028,173026

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\081-007

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/22/2011 6:06:04 PM Analysis Date: 3/22/2011 6:35:32 PM Sample Amount: 5.65 Multiplier: 5.65



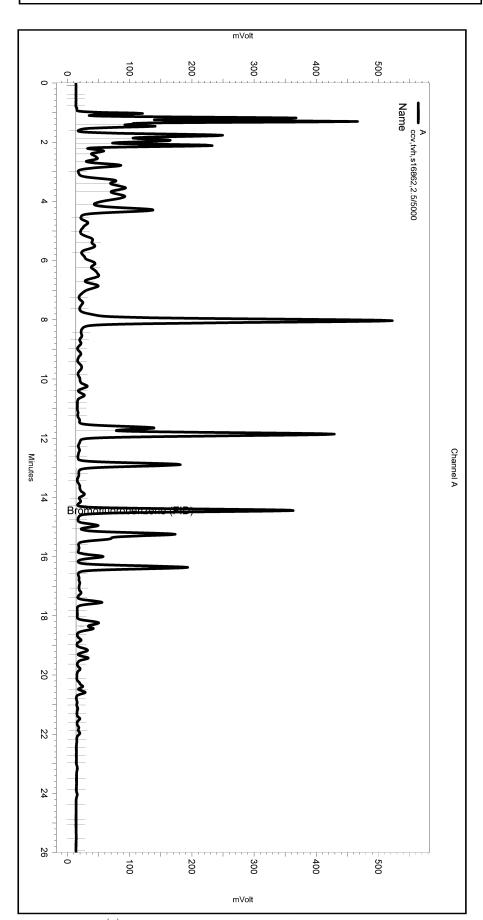
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 $\label{lem:convergence} Sequence \ File: \verb|\Lims\gdrive\ezchrom\Projects\GC04\Sequence\077.seq| \\$ Sample Name: ccv,tvh,s16862,2.5/5000

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\077-002

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/18/2011 3:08:50 PM Analysis Date: 3/18/2011 3:38:19 PM Sample Amount: 5 Multiplier: 5 Vial & pH or Core ID: {Data Description}



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Total Extractable Hydrocarbons Lab #: 226688 Location: 64th & Christie Emeryville, CA Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 Sampled: Matrix: Soil 03/16/11 Units: mg/Kg Received: 03/16/11 Basis: as received

Field ID: SB-25-2.5 Prepared: 03/22/11 Type: SAMPLE Analyzed: 03/23/11 EPA 3550B Lab ID: 226688-001 Prep: Diln Fac: 5.000 Cleanup Method: EPA 3630C Batch#: 173041

Result RL Analyte 120 Diesel C10-C24 5.0 Motor Oil C24-C36 430 25

Surrogate Limits o-Terphenyl 52-130

Field ID: SB-25-7.5Prepared: 03/20/11 Type: SAMPLE Analyzed: 03/22/11 226688-002 Lab ID: Prep: SHAKER TABLE Diln Fac: 5.000 Cleanup Method: EPA 3630C Batch#: 172955

Analyte Result RLDiesel C10-C24 110 5.0 Motor Oil C24-C36 500 25

Surrogate Limits 68 52-130 o-Terphenyl

Field ID: SB-25-12.5 Prepared: 03/20/11 SAMPLE Analyzed: 03/22/11 Type: Lab ID: 226688-003 Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C 172955 Batch#:

Analyte Result RLDiesel C10-C24 340 Y 9.9 Motor Oil C24-C36 ,000 50

Surrogate %REC Limits o-Terphenyl DO 52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226688 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 03/16/11 Matrix: Soil Sampled: Units: mg/Kg Received: 03/16/11 Basis: as received

Field ID: SB-29-2.5 Prepared: 03/22/11 03/23/11 Type: SAMPLE Analyzed: Lab ID: 226688-004 Prep: EPA 3550B Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 173041

Analyte	Result	RL	
Diesel C10-C24	920 Y	9.9	
Motor Oil C24-C36	910	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: SB-29-7.5 Prepared: 03/20/11 SAMPLE Type: Analyzed: 03/22/11 Lab ID: 226688-005 Prep: SHAKER TABLE Diln Fac: 5.000 Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	580 Y	5.0	
Motor Oil C24-C36	550	25	

Surrogate	%REC	Limits
o-Terphenyl	86	52-130

Field ID: SB-29-12.5 03/20/11 Prepared: 03/22/11 Type: SAMPLE Analyzed: 226688-006 Lab ID: Prep: SHAKER TABLE 5.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	260 Y	5.0	
Motor Oil C24-C36	400	25	

Surrogate	%REC	Limits
o-Terphenyl	87	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226688 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 03/16/11 Matrix: Soil Sampled: Units: mg/Kg Received: 03/16/11 Basis: as received

Field ID: SB-29-16.0 Prepared: 03/20/11 03/21/11 Type: SAMPLE Analyzed: Lab ID: 226688-007 Prep: SHAKER TABLE 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	5.7 Y	1.0	
Motor Oil C24-C36	9.0	5.0	

Surrogate	%REC	Limits
o-Terphenyl	68	52-130

Field ID: SB-16-2.5 Prepared: 03/20/11 SAMPLE Type: Analyzed: 03/22/11 Lab ID: 226688-009 Prep: SHAKER TABLE Diln Fac: 5.000 Cleanup Method: EPA 3630C Batch#: 172955

Analyte	Result	RL	
Diesel C10-C24	110 Y	5.0	
Motor Oil C24-C36	390	25	

Surrogate	%REC	Limits
o-Terphenyl	58	52-130

Field ID: 03/21/11 SB-16-7.5 Prepared: 03/21/11 Type: SAMPLE Analyzed: 226688-010 Lab ID: Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	6.1 Y	0.99	
Motor Oil C24-C36	22	5.0	

Surrogate	%REC	Limits
o-Terphenyl	69	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit

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Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226688 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 Sampled: 03/16/11 Matrix: Soil Units: mg/Kg Received: 03/16/11 Basis: as received

Field ID: SB-16-12.5 Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: SHAKER TABLE 226688-011 Prep: Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	3.4 Y	1.0	
Motor Oil C24-C36	7.4	5.0	

Surrogate	%REC	Limits
o-Terphenyl	69	52-130

Field ID: SB-17-2.5 Prepared: 03/22/11 SAMPLE Type: Analyzed: 03/23/11 Lab ID: 226688-012 Prep: EPA 3550B Cleanup Method: EPA 3630C Diln Fac: 3.000 Batch#: 173041

Analyte	Result	RL	
Diesel C10-C24	82 Y	3.0	
Motor Oil C24-C36	230	15	

Surrogate	%REC	Limits
o-Terphenyl	119	52-130

Field ID: SB-17-6.0 03/21/11 Prepared: 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226688-013 Prep: SHAKER TABLE 1.000 Diln Fac: EPA 3630C Cleanup Method: Batch#: 172970

 Analyte
 Result
 RL

 Diesel C10-C24
 6.8 Y
 1.0

 Motor Oil C24-C36
 17
 5.0

Surrogate	%REC	Limits
o-Terphenyl	80	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226688 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 03/16/11 Matrix: Soil Sampled: Units: mg/Kg Received: 03/16/11 Basis: as received

Field ID: SB-17-12.5 Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226688-014 Prep: SHAKER TABLE 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	15 Y	0.99	
Motor Oil C24-C36	58	5.0	

Surrogate	%REC	Limits
o-Terphenyl	64	52-130

Field ID: SB-31-2.5 Prepared: 03/21/11 SAMPLE Type: Analyzed: 03/21/11 Lab ID: 226688-015 Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	69 Y	9.9	
Motor Oil C24-C36	330	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: 03/21/11 SB-31-7.5 Prepared: 03/22/11 Type: SAMPLE Analyzed: 226688-016 Lab ID: Prep: SHAKER TABLE 5.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	170 Y	5.0	
Motor Oil C24-C36	430	25	

Surrogate	%REC	Limits
o-Terphenyl	57	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226688 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 Sampled: 03/16/11 Matrix: Soil Units: mg/Kg Received: 03/16/11 Basis: as received

Field ID: SB-31-12.5 Prepared: 03/21/11 03/21/11 Type: SAMPLE Analyzed: Lab ID: SHAKER TABLE 226688-017 Prep: Diln Fac: 2.000 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	640 Y	2.0	
Motor Oil C24-C36	1,000	10	

Surrogate	%REC	Limits
o-Terphenyl	61	52-130

Field ID: SB-31-16.0 Prepared: 03/21/11 SAMPLE Type: Analyzed: 03/22/11 Lab ID: 226688-018 Prep: SHAKER TABLE Diln Fac: 2.000 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	360 Y	2.0	
Motor Oil C24-C36	690	10	

Surrogate	%REC	Limits
o-Terphenyl	57	52-130

Field ID: 03/21/11 SB-32-2.5 Prepared: 03/22/11 Type: SAMPLE Analyzed: SHAKER TABLE Lab ID: 226688-020 Prep: 20.00 Diln Fac: EPA 3630C Cleanup Method: Batch#: 172970

 Analyte
 Result
 RL

 Diesel C10-C24
 80 Y
 20

 Motor Oil C24-C36
 670
 100

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226688 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 Soil Sampled: 03/16/11 Matrix: Units: mg/Kg Received: 03/16/11 Basis: as received

Field ID: SB-32-7.5Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: SHAKER TABLE 226688-021 Prep: Diln Fac: 2.000 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	93 Y	2.0	
Motor Oil C24-C36	220	9.9	

Field ID: SB-32-11.0 Prepared: 03/21/11 Type: SAMPLE Analyzed: 03/21/11 Lab ID: 226688-022 Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	3,100 Y	10	
Motor Oil C24-C36	3,300	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: SB-27-2.5 03/21/11 Prepared: 03/21/11 Type: SAMPLE Analyzed: 226688-023 SHAKER TABLE Lab ID: Prep: 1.000 Diln Fac: EPA 3630C Cleanup Method: Batch#: 172970

Analyte Result RLDiesel C10-C24 16 Y 0.99 Motor Oil C24-C36 94 <u>5</u>.0

Surrogate	%REC	Limits
o-Terphenyl	81	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit

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Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226688 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 03/16/11 Matrix: Soil Sampled: Units: mg/Kg Received: 03/16/11 Basis: as received

Field ID: SB-27-7.5Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226688-024 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	430 Y	0.99	
Motor Oil C24-C36	290	5.0	

Surrogate	%REC	Limits
o-Terphenyl	56	52-130

Field ID: SB-27-12.5 Prepared: 03/21/11 SAMPLE Type: Analyzed: 03/22/11 Lab ID: 226688-025 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	30 Y	0.99	
Motor Oil C24-C36	79	5.0	

Surrogate	%REC	Limits
o-Terphenyl	57	52-130

Field ID: SB-24-1.5 03/21/11 Prepared: 03/21/11 Type: SAMPLE Analyzed: Lab ID: 226688-026 Prep: SHAKER TABLE 10.00 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	740 Y	10	
Motor Oil C24-C36	850	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226688 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 03/16/11 Matrix: Soil Sampled: Units: mg/Kg Received: 03/16/11 Basis: as received

Field ID: SB-24-5.5 Prepared: 03/21/11 03/21/11 Type: SAMPLE Analyzed: Lab ID: 226688-027 Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	74 Y	9.9	
Motor Oil C24-C36	510	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: SB-24-12.0 Prepared: 03/21/11 SAMPLE Type: Analyzed: 03/21/11 Lab ID: 226688-028 Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	260 Y	10	
Motor Oil C24-C36	990	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

03/20/11 Type: BLANK Prepared: Lab ID: 03/21/11 QC584510 Analyzed: Diln Fac: $\tilde{1}.000$ Prep: SHAKER TABLE Batch#: 172955 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
o-Terphenyl	74	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit

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Total Extractable Hydrocarbons 226688 Location: 64th & Christie Emeryville, CA Lab #: Client: PES Environmental, Inc. Analysis: EPA 8015B Project#: 241.082.02.001 Matrix: Soil Sampled: 03/16/11 Units: mg/Kg Received: 03/16/11 Basis: as received

Type: BLANK Prepared: 03/21/11 Lab ID: QC584569 03/21/11 Analyzed: Diln Fac: 1.000 Prep: SHAKER TABLE Batch#: 172970 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits	
Surrogate	-SKEC	птштср	
o-Terphenyl	65	52-130	
O TELDITETIAL	0.5	JZ 130	

03/22/11 Type: BLANK Prepared: QC584843 Lab ID: Analyzed: 03/23/11 1.000 EPA 3550B Diln Fac: Prep: Batch#: 173041 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
o-Terphenyl	92	52-130

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit

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	Total Extract	able Hydrocarbons
Lab #:	226688	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE
Project#:	241.082.02.001	Analysis: EPA 8015B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC584511	Batch#: 172955
Matrix:	Soil	Prepared: 03/20/11
Units:	mg/Kg	Analyzed: 03/21/11

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.82	40.21	81	44-151

Surrogate	%REC	Limits
o-Terphenyl	82	52-130

Page 1 of 1 41.1



	Total Extract	able Hydrocarbons
Lab #:	226688	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE
Project#:	241.082.02.001	Analysis: EPA 8015B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC584570	Batch#: 172970
Matrix:	Soil	Prepared: 03/21/11
Units:	mg/Kg	Analyzed: 03/22/11

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.94	35.13	70	44-151

Surrogate	%REC	Limits
o-Terphenyl	91	52-130

Page 1 of 1 42.1



Total Extractable Hydrocarbons				
Lab #:	226688	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE		
Project#:	241.082.02.001	Analysis: EPA 8015B		
Field ID:	SB-20-1.5	Batch#: 172970		
MSS Lab ID:	226712-001	Sampled: 03/17/11		
Matrix:	Soil	Received: 03/17/11		
Units:	mg/Kg	Prepared: 03/21/11		
Basis:	as received	Analyzed: 03/21/11		
Diln Fac:	5.000			

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC584571

Analyte	MSS Result	Spiked	Result	%REC Limits
Diesel C10-C24	172.7	49.52	106.4	-134 * 39-146

Surrogate	%REC	Limits
o-Terphenyl	33 *	52-130

Type: MSD Cleanup Method: EPA 3630C

Lab ID: QC584572

Analyte	Spiked	Result	%REC	Limits	RPD I	Lim
Diesel C10-C24	50.00	131.6	-82 *	39-146	21 (61

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1



Total Extractable Hydrocarbons				
Lab #:	226688	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B		
Project#:	241.082.02.001	Analysis: EPA 8015B		
Type:	LCS	Diln Fac: 1.000		
Lab ID:	QC584844	Batch#: 173041		
Matrix:	Soil	Prepared: 03/22/11		
Units:	mg/Kg	Analyzed: 03/23/11		

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.39	53.54	106	44-151

Surrogate	%REC	Limits
o-Terphenyl	113	52-130

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Batch QC Report

Total Extractable Hydrocarbons					
Lab #:	226688	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8015B			
Field ID:	ZZZZZZZZZ	Batch#: 173041			
MSS Lab ID:	226779-001	Sampled: 03/22/11			
Matrix:	Soil	Received: 03/22/11			
Units:	mg/Kg	Prepared: 03/22/11			
Basis:	as received	Analyzed: 03/23/11			
Diln Fac:	1.000				

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC584845

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	<0.2626	50.16	47.23	94	39-146

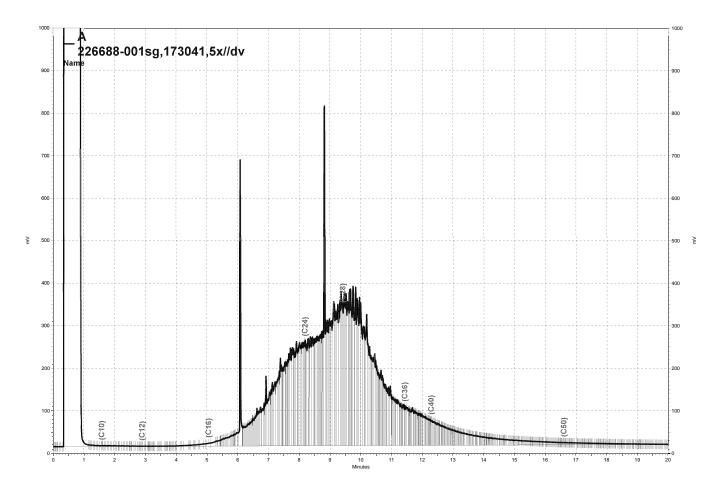
Surrogate	%REC	Limits
o-Terphenyl	97	52-130

Type: MSD Cleanup Method: EPA 3630C

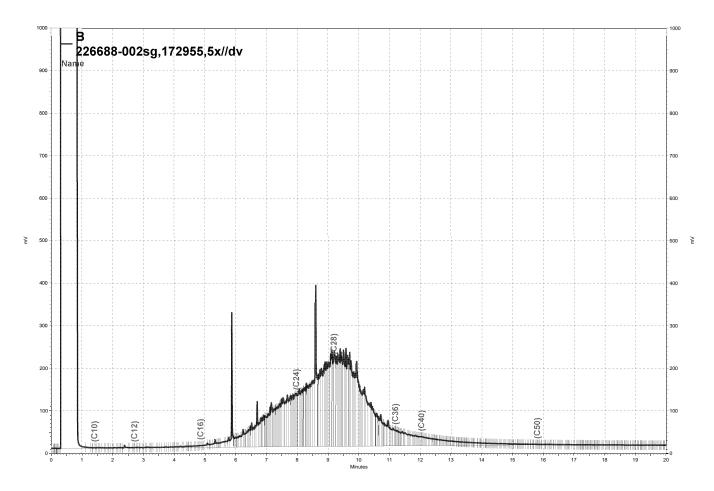
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Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.12	61.70	123	39-146	27	61

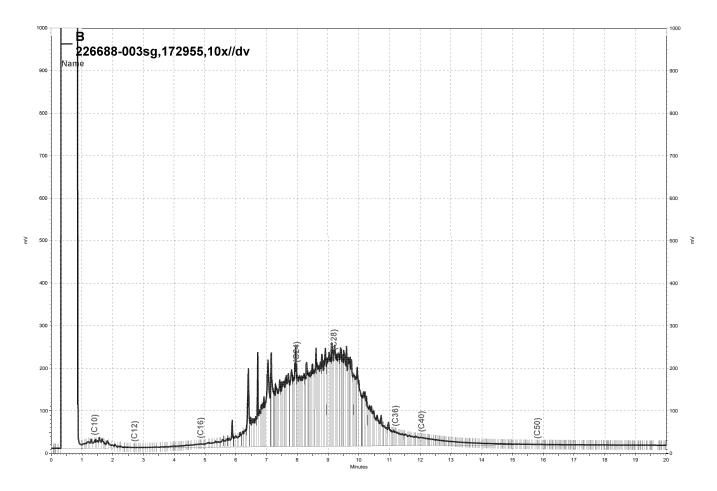
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o-Terphenyl	130	52-130	



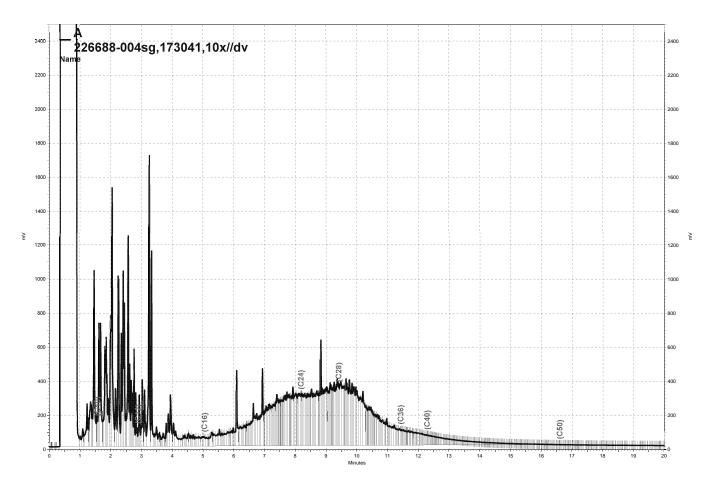
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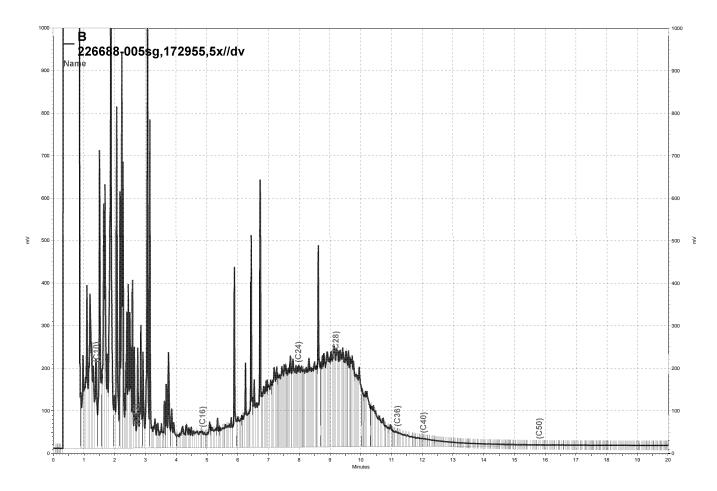
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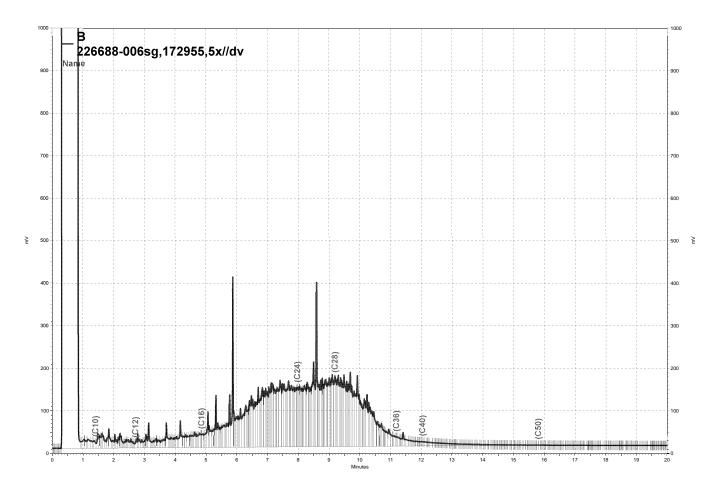
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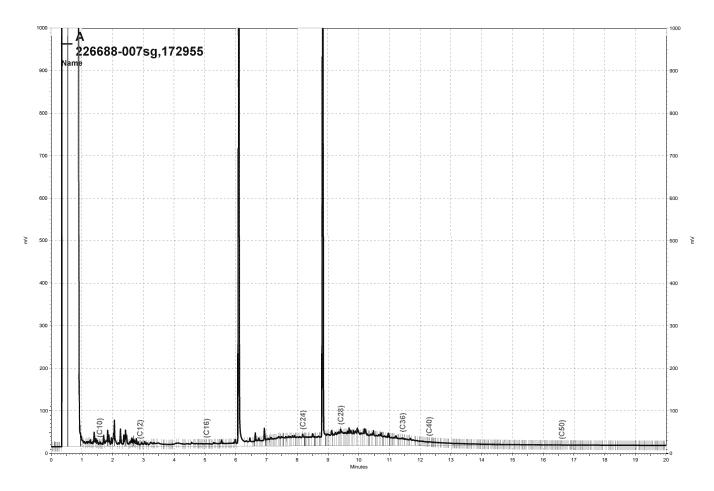
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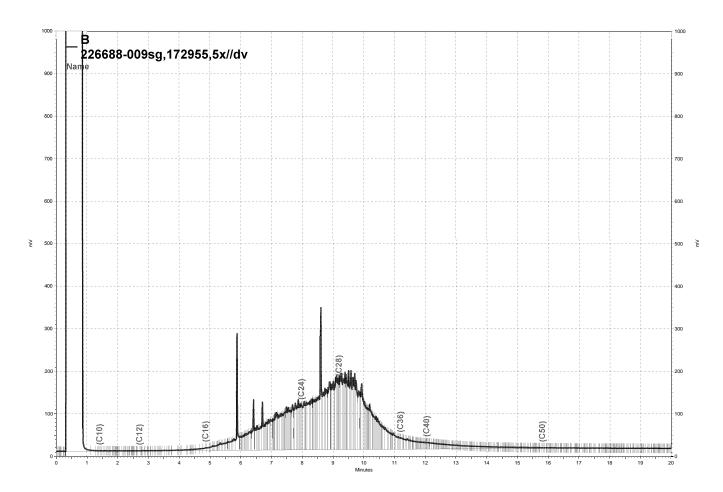
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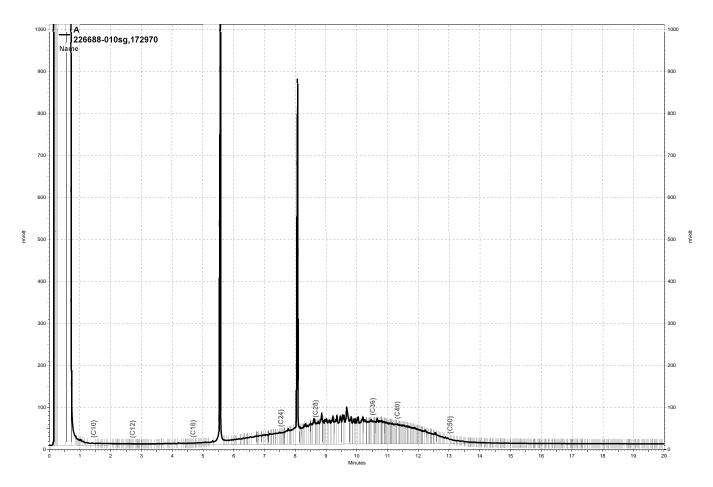
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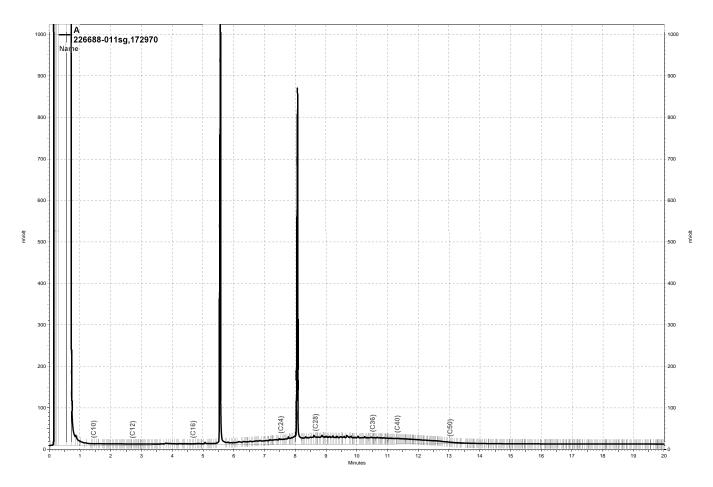
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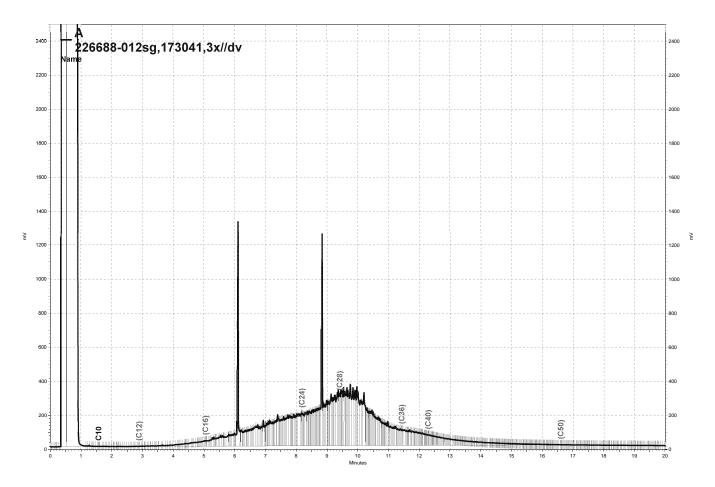
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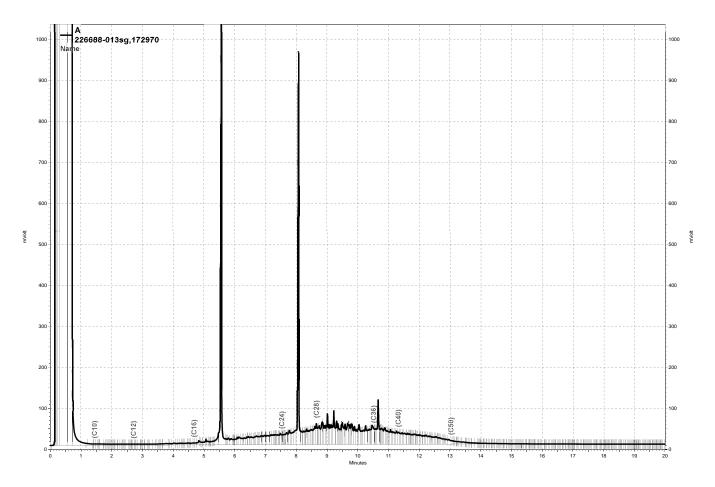
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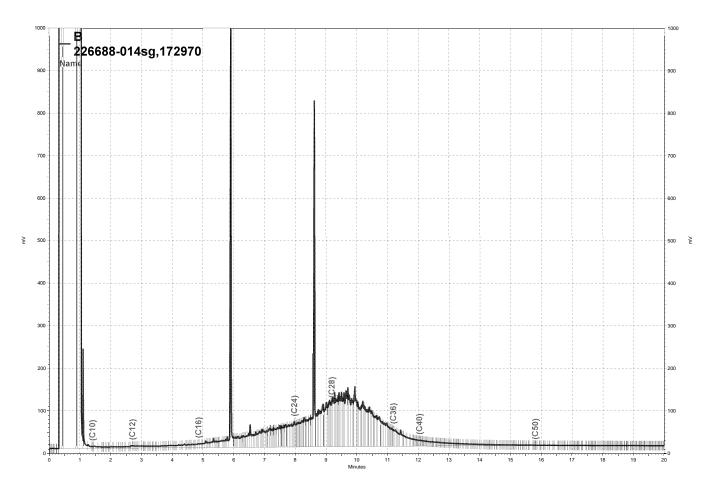
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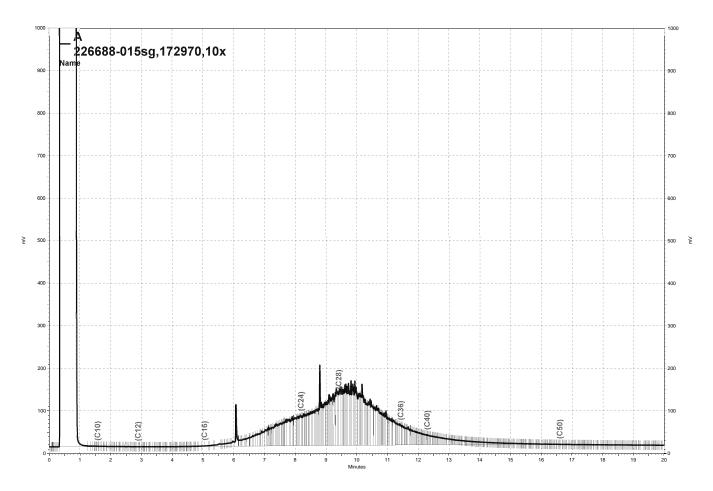
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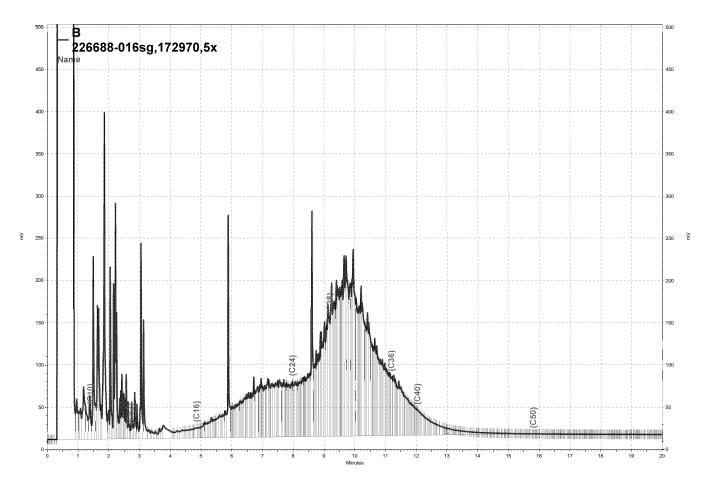
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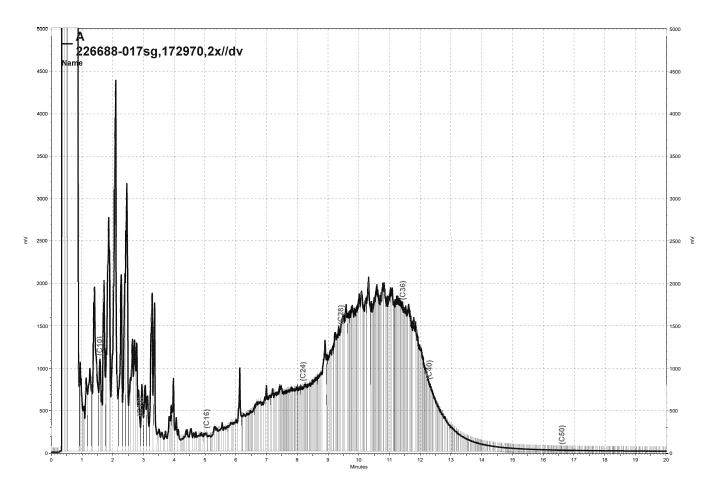
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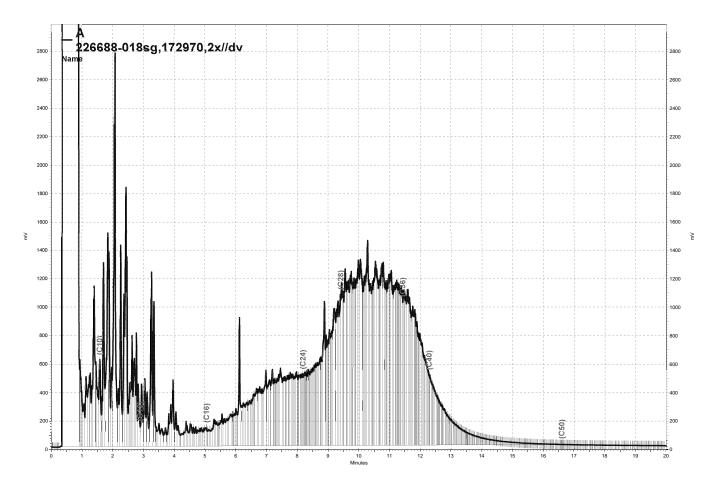
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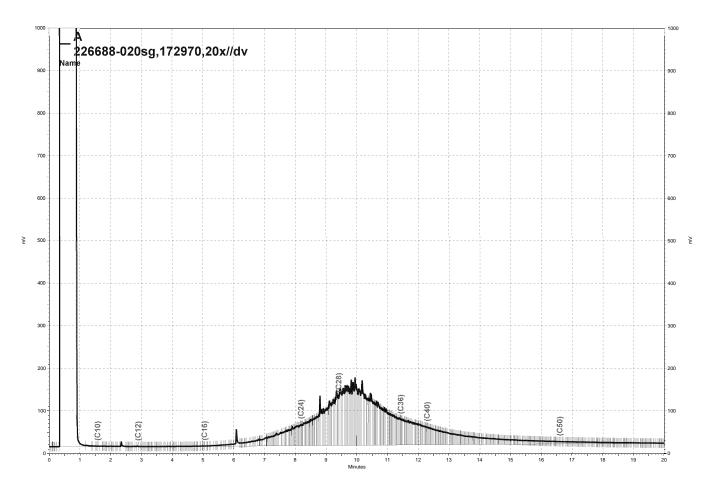
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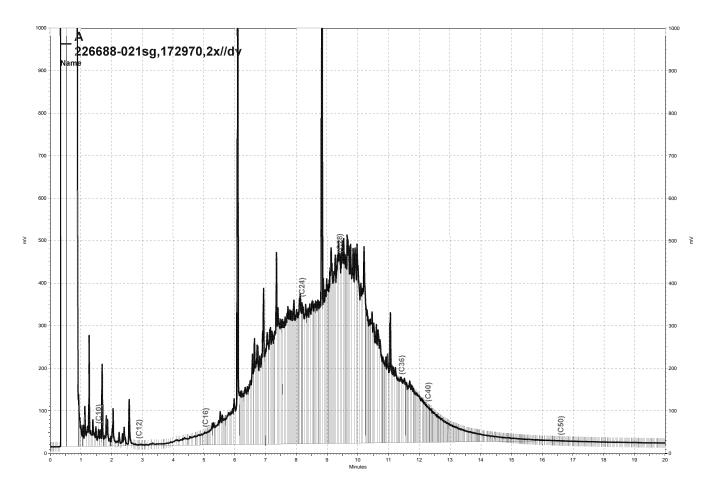
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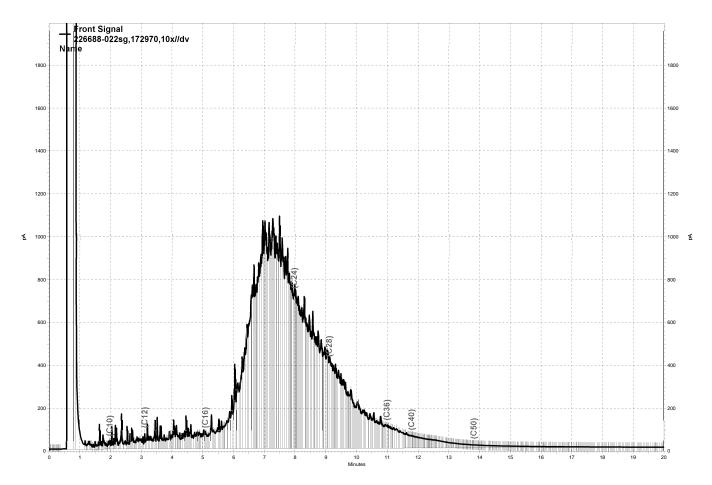
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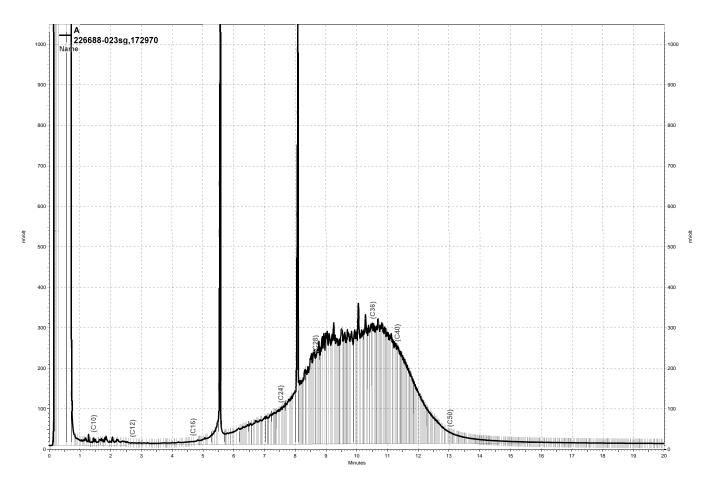
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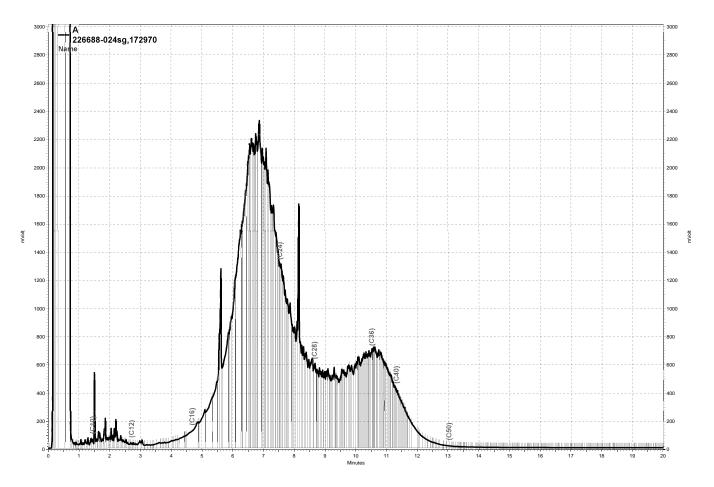
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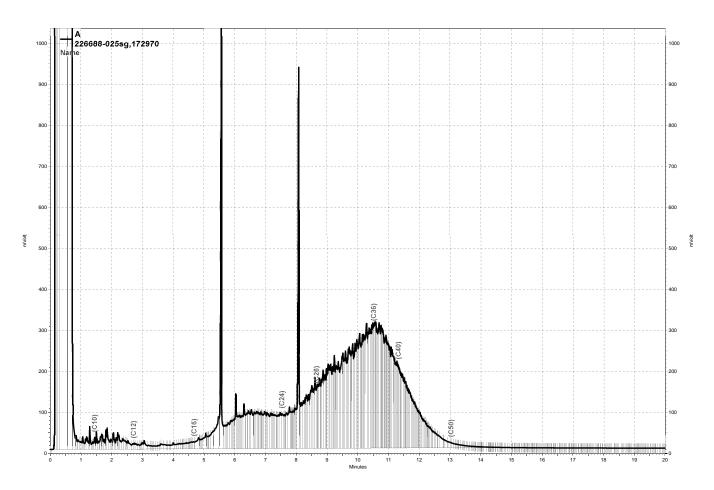
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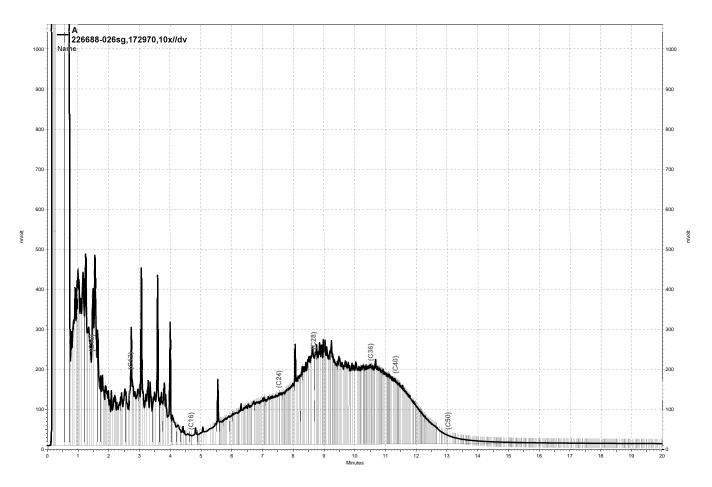
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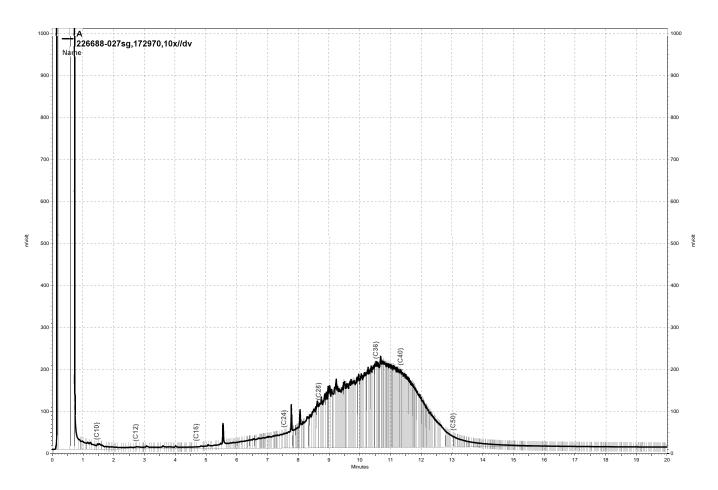
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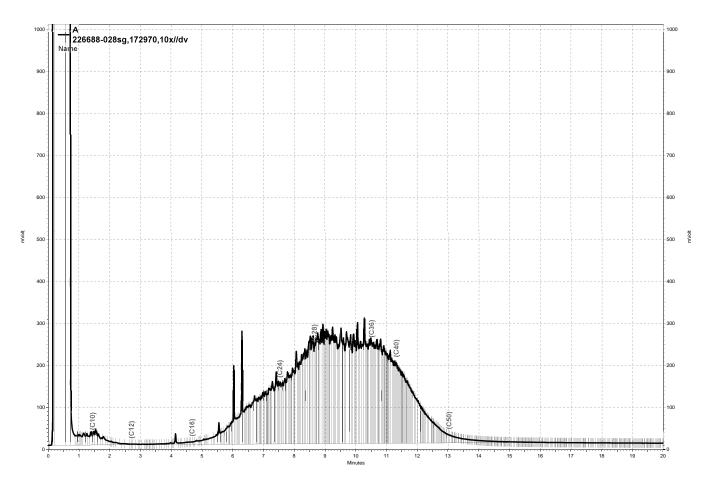
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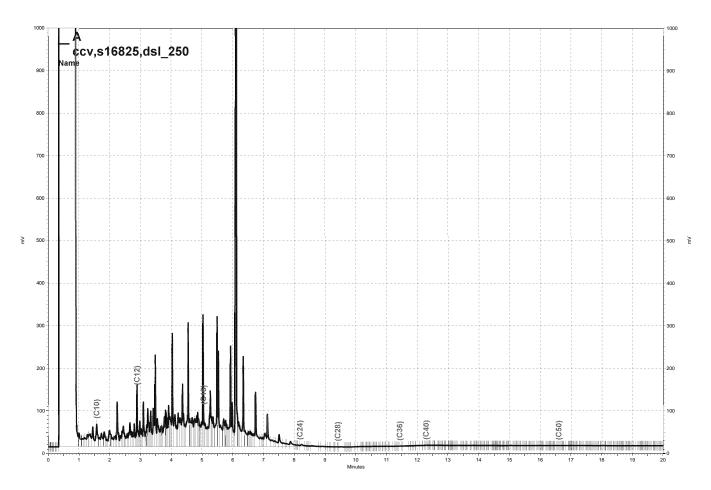
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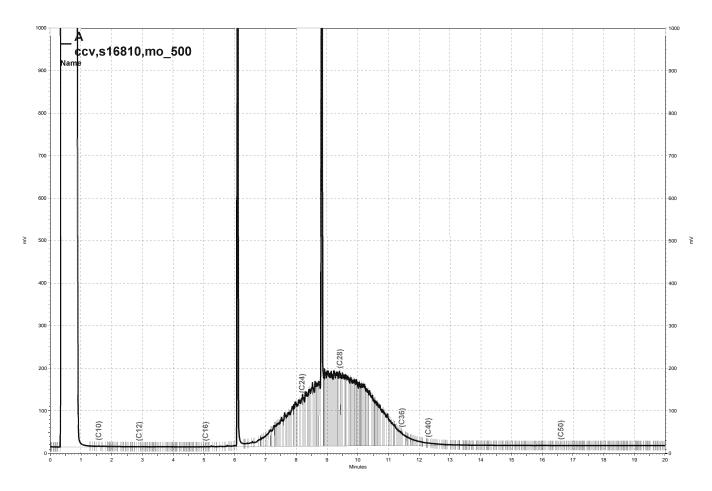
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	Purgeable O	rganics by GC/	MS
Lab #:	226688	Location: 64th	n & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-25-7.5	Diln Fac:	0.9058
Lab ID:	226688-002	Batch#:	172873
Matrix:	Soil	Sampled:	03/16/11
Units:	ug/Kg	Received:	03/16/11
Basis:	as received	Analyzed:	03/17/11

Analyte	Result	RL	
Freon 12	ND ND	9.1	
Chloromethane	ND	9.1	
Vinyl Chloride	ND	9.1	
Bromomethane	ND	9.1	
Chloroethane	ND	9.1	
Trichlorofluoromethane	ND	4.5	
Acetone	ND	18	
Freon 113	ND	4.5	
1,1-Dichloroethene	ND	4.5	
Methylene Chloride	ND	18	
Carbon Disulfide	ND	4.5	
MTBE	ND	4.5	
trans-1,2-Dichloroethene	ND	4.5	
Vinyl Acetate	ND	45	
1,1-Dichloroethane	ND	4.5	
2-Butanone	ND	9.1	
cis-1,2-Dichloroethene	ND	4.5	
2,2-Dichloropropane	ND	4.5	
Chloroform	ND	4.5	
Bromochloromethane	ND	4.5	
1,1,1-Trichloroethane	ND	4.5	
1,1-Dichloropropene	ND	4.5	
Carbon Tetrachloride	ND	4.5	
1,2-Dichloroethane	ND	4.5	
Benzene	ND	4.5	
Trichloroethene	ND	4.5	
1,2-Dichloropropane	ND	4.5	
Bromodichloromethane	ND	4.5	
Dibromomethane	ND	4.5	
4-Methyl-2-Pentanone	ND	9.1	
cis-1,3-Dichloropropene	ND	4.5	
Toluene	ND	4.5	
trans-1,3-Dichloropropene	ND	4.5	
1,1,2-Trichloroethane	ND	4.5	
2-Hexanone	ND	9.1	
1,3-Dichloropropane	ND	4.5	
Tetrachloroethene	ND	4.5	

ND= Not Detected

RL= Reporting Limit

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	Purgeable O	rganics by GC/	MS
Lab #:	226688	Location: 64th	n & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-25-7.5	Diln Fac:	0.9058
Lab ID:	226688-002	Batch#:	172873
Matrix:	Soil	Sampled:	03/16/11
Units:	ug/Kg	Received:	03/16/11
Basis:	as received	Analyzed:	03/17/11

Analyte	Result	RL	
Dibromochloromethane	ND	4.5	
1,2-Dibromoethane	ND	4.5	
Chlorobenzene	ND	4.5	
1,1,1,2-Tetrachloroethane	ND	4.5	
Ethylbenzene	ND	4.5	
m,p-Xylenes	ND	4.5	
o-Xylene	ND	4.5	
Styrene	ND	4.5	
Bromoform	ND	4.5	
Isopropylbenzene	ND	4.5	
1,1,2,2-Tetrachloroethane	ND	4.5	
1,2,3-Trichloropropane	ND	4.5	
Propylbenzene	ND	4.5	
Bromobenzene	ND	4.5	
1,3,5-Trimethylbenzene	ND	4.5	
2-Chlorotoluene	ND	4.5	ŀ
4-Chlorotoluene	ND	4.5	
tert-Butylbenzene	ND	4.5	
1,2,4-Trimethylbenzene	ND	4.5	
sec-Butylbenzene	ND	4.5	
para-Isopropyl Toluene	ND	4.5	
1,3-Dichlorobenzene	ND	4.5	
1,4-Dichlorobenzene	ND	4.5	
n-Butylbenzene	ND	4.5	
1,2-Dichlorobenzene	ND	4.5	
1,2-Dibromo-3-Chloropropane	ND	4.5	
1,2,4-Trichlorobenzene	ND	4.5	
Hexachlorobutadiene	ND	4.5	
Naphthalene	13	4.5	
1,2,3-Trichlorobenzene	ND	4.5	

Surrogate	%REC	Limits	
Dibromofluoromethane	94	79-120	
1,2-Dichloroethane-d4	80	72-148	
Toluene-d8	111	80-120	
Bromofluorobenzene	127	78-130	

ND= Not Detected

RL= Reporting Limit

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Purgeable Aromatics by GC/MS Location: 64th & Christie Emeryville, CA Prep: EPA 5035 Lab #: 226688 Client: PES Environmental, Inc. Prep: Analysis: EPA 8260B Project#: 241.082.02.001 Sampled: 03/16/11 03/16/11 Matrix: Soil Units: ug/Kg Received: Basis: as received

Field ID: SB-29-2.5 Diln Fac: 50.92 Type: SAMPLE Batch#: 172973 Lab ID: 226688-004 Analyzed: 03/21/11

Analyte	Result	RL	
Benzene	ND	250	
Toluene	ND	250	
Ethylbenzene	2,000	250	
m,p-Xylenes	ND	250	
o-Xylene	ND	250	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	80	72-148
Toluene-d8	92	80-120
Bromofluorobenzene	100	78-130

Field ID: SB-29-7.5 Diln Fac: 1,289
Type: SAMPLE Batch#: 172953
Lab ID: 226688-005 Analyzed: 03/20/11

Analyte	Result	RL	
Benzene	ND	6,400	
Toluene	ND	6,400	
Ethylbenzene	75,000	6,400	
m,p-Xylenes	18,000	6,400	
o-Xylene	ND	6,400	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	77	72-148	
Toluene-d8	100	80-120	
Bromofluorobenzene	93	78-130	

Field ID: SB-29-12.5 Diln Fac: 1.062 Type: SAMPLE Batch#: 172873 Lab ID: 226688-006 Analyzed: 03/17/11

Analyte	Result	RL	
Benzene	ND	5.3	
Toluene	ND	5.3	
Ethylbenzene	ND	5.3	
m,p-Xylenes	8.2	5.3	
o-Xylene	ND	5.3	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	83	72-148	
Toluene-d8	102	80-120	
Bromofluorobenzene	151 *	78-130	

^{*=} Value outside of QC limits; see narrative

Page 1 of 4

ND= Not Detected

RL= Reporting Limit



Purgeable Aromatics by GC/MS 226688 Location: 64th & Christie Emeryville, CA Lab #: Client: PES Environmental, Inc. EPA 5035 Prep: Analysis: EPA 8260B Sampled: 03 Project#: 241.082.02.001 03/16/11 Matrix: Soil Received: Units: ug/Kg 03/16/11 Basis: as received

 Field ID:
 SB-29-16.0
 Diln Fac:
 1.241

 Type:
 SAMPLE
 Batch#:
 172873

 Lab ID:
 226688-007
 Analyzed:
 03/17/11

Analyte	Result	RL	
Benzene	ND	6.2	
Toluene	ND	6.2	
Ethylbenzene	ND	6.2	
m,p-Xylenes	ND	6.2	
o-Xylene	ND	6.2	

Surrogate	%REC	imits	
1,2-Dichloroethane-d4	75	72-148	
Toluene-d8	98	30-120	
Bromofluorobenzene	92	78-130	

Field ID: SB-31-2.5 Diln Fac: 0.9025 Type: SAMPLE Batch#: 172873 Lab ID: 226688-015 Analyzed: 03/17/11

Analyte	Result	RL	
Benzene	ND	4.5	
Toluene	ND	4.5	
Ethylbenzene	ND	4.5	
m,p-Xylenes	ND	4.5	
o-Xylene	ND	4.5	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	76	72-148	
Toluene-d8	102	80-120	
Bromofluorobenzene	106	78-130	

Field ID: SB-31-7.5 Diln Fac: 0.7587 Type: SAMPLE Batch#: 172873 Lab ID: 226688-016 Analyzed: 03/17/11

Analyte	Result	RL	
Benzene	ND	3.8	
Toluene	ND	3.8	
Ethylbenzene	ND	3.8	
m,p-Xylenes	ND	3.8	
o-Xvlene	ND	3.8	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	76	72-148	
Toluene-d8	98	80-120	
Bromofluorobenzene	92	78-130	

^{*=} Value outside of QC limits; see narrative

RL= Reporting Limit

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ND= Not Detected



Purgeable Aromatics by GC/MS 226688 Location: 64th & Christie Emeryville, CA Lab #: Client: PES Environmental, Inc. EPA 5035 Prep: Analysis: EPA 8260B Sampled: 03 Project#: 241.082.02.001 Soil 03/16/11 Matrix: Received: Units: ug/Kg 03/16/11 Basis: as received

 Field ID:
 SB-31-12.5
 Diln Fac:
 43.63

 Type:
 SAMPLE
 Batch#:
 172953

 Lab ID:
 226688-017
 Analyzed:
 03/20/11

Analyte	Result	RL	
Benzene	ND	220	
Toluene	ND	220	
Ethylbenzene	ND	220	
m,p-Xylenes	ND	220	
o-Xylene	ND	220	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	81	72-148
Toluene-d8	96	80-120
Bromofluorobenzene	116	78-130

Field ID: SB-31-16.0 Diln Fac: 99.60 Type: SAMPLE Batch#: 172953 Lab ID: 226688-018 Analyzed: 03/20/11

Analyte	Result	RL	
Benzene	ND	500	
Toluene	ND	500	
Ethylbenzene	ND	500	
m,p-Xylenes	ND	500	
o-Xylene	ND	500	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	79	72-148	
Toluene-d8	98	80-120	
Bromofluorobenzene	92	78-130	

Type: BLANK Batch#: 172873
Lab ID: QC584196 Analyzed: 03/17/11
Diln Fac: 1.000

Analyte	Result	RL
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	82	72-148	
Toluene-d8	103	80-120	
Bromofluorobenzene	91	78-130	

^{*=} Value outside of QC limits; see narrative

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ND= Not Detected

RL= Reporting Limit



Purgeable Aromatics by GC/MS Location: 64th & Christie Emeryville, CA Prep: EPA 5035 Lab #: 226688 Client: PES Environmental, Inc. Analysis: EPA 8260B Sampled: 03 Project#: 241.082.02.001 Soil 03/16/11 Matrix: ug/Kg Received: Units: 03/16/11 Basis: as received

Type: BLANK Batch#: 172953 Lab ID: QC584504 Analyzed: 03/20/11 Diln Fac: 1.000

Analyte	Result	RL	
Benzene	ND	5.0	
Toluene	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	88	72-148	
Toluene-d8	95	80-120	
Bromofluorobenzene	94	78-130	

Type: BLANK Batch#: 172973 Lab ID: QC584582 Analyzed: 03/21/11 Diln Fac: 1.000

Analyte	Result	RL	
Benzene	ND	5.0	
Toluene	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
m,p-Xylenes o-Xylene	ND	5.0	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	92	72-148
Toluene-d8	96	80-120
Bromofluorobenzene	95	78-130

RL= Reporting Limit

RL= Reporting I Page 4 of 4

^{*=} Value outside of QC limits; see narrative

ND= Not Detected



Batch QC Report

Purgeable Organics by GC/MS				
Lab #:	226688	Location:	64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep:	EPA 5035	
Project#:	241.082.02.001	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC584196	Batch#:	172873	
Matrix:	Soil	Analyzed:	03/17/11	
Units:	ug/Kg			

Analyte	Result	RL	
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.0	
Acetone	ND	20	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS						
Lab #:	226688	Location:	64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep:	EPA 5035			
Project#:	241.082.02.001	Analysis:	EPA 8260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC584196	Batch#:	172873			
Matrix:	Soil	Analyzed:	03/17/11			
Units:	ug/Kg					

Analyte	Result	RL	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Styrene	ND	5.0	
Bromoform	ND	5.0	
Isopropylbenzene	ND	5.0	
1,1,2,2-Tetrachloroethane	ND	5.0	
1,2,3-Trichloropropane	ND	5.0	
Propylbenzene	ND	5.0	
Bromobenzene	ND	5.0	
1,3,5-Trimethylbenzene	ND	5.0	
2-Chlorotoluene	ND	5.0	
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	90	79-120	
1,2-Dichloroethane-d4	82	72-148	
Toluene-d8	103	80-120	
Bromofluorobenzene	91	78-130	

ND= Not Detected

RL= Reporting Limit

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Purgeable Aromatics by GC/MS							
Lab #:	226688	Location: 64th & Christie Emeryville, CA					
Client:	PES Environmental, Inc.	Prep: EPA 5035					
Project#:	241.082.02.001	Analysis: EPA 8260B					
Matrix:	Soil	Batch#: 172873					
Units:	ug/Kg	Analyzed: 03/17/11					
Diln Fac:	1.000						

Type: BS Lab ID: QC584197

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	18.80	94	80-128
Toluene	20.00	18.95	95	80-130
Ethylbenzene	20.00	19.76	99	80-133
m,p-Xylenes	40.00	38.39	96	80-134
o-Xylene	20.00	18.72	94	79-130

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	82	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	90	78-130	

Type: BSD Lab ID: QC584198

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	19.30	96	80-128	3	20
Toluene	20.00	19.03	95	80-130	0	20
Ethylbenzene	20.00	18.59	93	80-133	6	20
m,p-Xylenes	40.00	38.57	96	80-134	0	20
o-Xylene	20.00	19.28	96	79-130	3	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	79	72-148
Toluene-d8	96	80-120
Bromofluorobenzene	90	78-130



Purgeable Organics by GC/MS							
Lab #:	226688	Location: 64th & Christie Emeryville, CA					
Client:	PES Environmental, Inc.	Prep: EPA 5035					
Project#:	241.082.02.001	Analysis: EPA 8260B					
Matrix:	Soil	Batch#: 172873					
Units:	ug/Kg	Analyzed: 03/17/11					
Diln Fac:	1.000						

Type: BS Lab ID: QC584197

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	18.88	94	68-134
Benzene	20.00	18.80	94	80-128
Trichloroethene	20.00	18.36	92	75-130
Toluene	20.00	18.95	95	80-130
Chlorobenzene	20.00	19.73	99	80-126

Surrogate	%REC	Limits	
Dibromofluoromethane	91	79-120	
1,2-Dichloroethane-d4	82	72-148	
Toluene-d8	96	30-120	
Bromofluorobenzene	90	78-130	

Type: BSD Lab ID: QC584198

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	18.17	91	68-134	4	27
Benzene	20.00	19.30	96	80-128	3	20
Trichloroethene	20.00	19.04	95	75-130	4	20
Toluene	20.00	19.03	95	80-130	0	20
Chlorobenzene	20.00	18.74	94	80-126	5	20

Surrogate	%REC	Limits	
Dibromofluoromethane	90	79-120	
1,2-Dichloroethane-d4	79	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	90	78-130	



	Purgeable Aromatics by GC/MS					
Lab #:	226688	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Field ID:	ZZZZZZZZZ	Batch#: 172873				
MSS Lab ID:	226679-001	Sampled: 03/16/11				
Matrix:	Soil	Received: 03/17/11				
Units:	ug/Kg	Analyzed: 03/17/11				
Basis:	as received					

Type: MS Diln Fac: 0.9634

Lab ID: QC584200

Analyte	MSS Result	Spiked	Result	%REC	Limits
Benzene	<0.8919	48.17	40.23	84	69-125
Toluene	<1.203	48.17	41.20	86	62-128
Ethylbenzene	<1.107	48.17	40.92	85	57-136
m,p-Xylenes	<0.5678	96.34	79.07	82	57-136
o-Xylene	<1.037	48.17	41.16	85	56-134

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	78	72-148
Toluene-d8	96	80-120
Bromofluorobenzene	90	78-130

Type: MSD Diln Fac: 0.9542

Lab ID: MSD QC584201

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	47.71	41.88	88	69-125	5	36
Toluene	47.71	43.67	92	62-128	7	41
Ethylbenzene	47.71	43.24	91	57-136	6	43
m,p-Xylenes	95.42	85.58	90	57-136	9	46
o-Xylene	47.71	43.07	90	56-134	5	40

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	75	72-148
Toluene-d8	98	80-120
Bromofluorobenzene	91	78-130



Purgeable Organics by GC/MS					
Lab #:	226688	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5030B			
Project#:	241.082.02.001	Analysis: EPA 8260B			
Field ID:	ZZZZZZZZZ	Batch#: 172873			
MSS Lab ID:	226679-001	Sampled: 03/16/11			
Matrix:	Soil	Received: 03/17/11			
Units:	ug/Kg	Analyzed: 03/17/11			
Basis:	as received				

Type: MS Diln Fac: 0.9634

Lab ID: QC584200

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5475	48.17	39.17	81	65-139
Benzene	<0.8919	48.17	40.23	84	69-125
Trichloroethene	<1.041	48.17	42.98	89	60-145
Toluene	<1.203	48.17	41.20	86	62-128
Chlorobenzene	<0.2688	48.17	39.36	82	56-127

Surrogate	%REC	Limits
Dibromofluoromethane	91	79-120
1,2-Dichloroethane-d4	78	72-148
Toluene-d8	96	80-120
Bromofluorobenzene	90	78-130

Type: MSD Diln Fac: 0.9542

Lab ID: QC584201

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	47.71	40.35	85	65-139	4	38
Benzene	47.71	41.88	88	69-125	5	36
Trichloroethene	47.71	45.50	95	60-145	7	41
Toluene	47.71	43.67	92	62-128	7	41
Chlorobenzene	47.71	42.52	89	56-127	9	42

Surrogate	%REC	Limits	
Dibromofluoromethane	87	79-120	
1,2-Dichloroethane-d4	75	72-148	
Toluene-d8	98	80-120	
Bromofluorobenzene	91	78-130	



Purgeable Aromatics by GC/MS					
Lab #:	226688	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5035			
Project#:	241.082.02.001	Analysis: EPA 8260B			
Matrix:	Soil	Batch#: 172953			
Units:	ug/Kg	Analyzed: 03/20/11			
Diln Fac:	1.000				

Type: BS Lab ID: QC584505

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	19.03	95	80-128
Toluene	20.00	18.20	91	80-130
Ethylbenzene	20.00	18.41	92	80-133
m,p-Xylenes	40.00	36.82	92	80-134
o-Xylene	20.00	17.84	89	79-130

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	89	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	95	78-130	

Type: BSD Lab ID: QC584506

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	18.83	94	80-128	1	20
Toluene	20.00	18.65	93	80-130	2	20
Ethylbenzene	20.00	18.84	94	80-133	2	20
m,p-Xylenes	40.00	36.04	90	80-134	2	20
o-Xylene	20.00	18.18	91	79-130	2	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	85	72-148
Toluene-d8	97	80-120
Bromofluorobenzene	95	78-130



Purgeable Aromatics by GC/MS					
Lab #:	226688	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5035			
Project#:	241.082.02.001	Analysis: EPA 8260B			
Matrix:	Soil	Batch#: 172973			
Units:	ug/Kg	Analyzed: 03/21/11			
Diln Fac:	1.000				

Type: BS Lab ID: QC584583

Analyte	Spiked	Result	%REC	Limits
Benzene	21.25	21.41	101	80-128
Toluene	21.25	20.47	96	80-130
Ethylbenzene	21.25	20.19	95	80-133
m,p-Xylenes	42.50	40.78	96	80-134
o-Xylene	21.25	19.83	93	79-130

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	88	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	94	78-130	

Type: BSD Lab ID: QC584584

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	21.25	20.70	97	80-128	3	20
Toluene	21.25	19.71	93	80-130	4	20
Ethylbenzene	21.25	19.88	94	80-133	2	20
m,p-Xylenes	42.50	38.57	91	80-134	6	20
o-Xylene	21.25	20.06	94	79-130	1	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	89	72-148
Toluene-d8	97	80-120
Bromofluorobenzene	94	78-130



	Semivolatile Organics by GC/MS					
Lab #:	226688	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 3550B				
Project#:	241.082.02.001	Analysis: EPA 8270C				
Field ID:	SB-25-7.5	Batch#: 172878				
Lab ID:	226688-002	Sampled: 03/16/11				
Matrix:	Soil	Received: 03/16/11				
Units:	ug/Kg	Prepared: 03/17/11				
Basis:	as received	Analyzed: 03/18/11				
Diln Fac:	1.000	- -				

Analyte	Result	RL	
N-Nitrosodimethylamine	ND	340	
Phenol	ND	340	
bis(2-Chloroethyl)ether	ND	340	
	ND ND	340	
2-Chlorophenol		340	
1,3-Dichlorobenzene	ND		
1,4-Dichlorobenzene	ND	340	
Benzyl alcohol	ND	340	
1,2-Dichlorobenzene	ND	340	
2-Methylphenol	ND	340	
bis(2-Chloroisopropyl) ether	ND	340	
4-Methylphenol	ND	340	
N-Nitroso-di-n-propylamine	ND	340	
Hexachloroethane	ND	340	
Nitrobenzene	ND	340	
Isophorone	ND	340	
2-Nitrophenol	ND	670	
2,4-Dimethylphenol	ND	340	
Benzoic acid	ND	1,700	
bis(2-Chloroethoxy)methane	ND	340	
2,4-Dichlorophenol	ND	340	
1,2,4-Trichlorobenzene	ND	340	
Naphthalene	150	67	
4-Chloroaniline	ND	340	
		340	
Hexachlorobutadiene	ND		
4-Chloro-3-methylphenol	ND	340	
2-Methylnaphthalene	ND	67	
Hexachlorocyclopentadiene	ND	670	
2,4,6-Trichlorophenol	ND	340	
2,4,5-Trichlorophenol	ND	340	
2-Chloronaphthalene	ND	340	
2-Nitroaniline	ND	670	
Dimethylphthalate	ND	340	
Acenaphthylene	ND	67	
2,6-Dinitrotoluene	ND	340	
3-Nitroaniline	ND	670	
Acenaphthene	ND	67	
2,4-Dinitrophenol	ND	670	
4-Nitrophenol	ND	670	
Dibenzofuran	ND	340	
2,4-Dinitrotoluene	ND	340	
Diethylphthalate	ND	340	
Fluorene	ND ND	67	
4-Chlorophenyl-phenylether	ND ND	340	
4-Chiorophenyi-phenyiether 4-Nitroaniline	ND ND	670	
4,6-Dinitro-2-methylphenol	ND	670	
N-Nitrosodiphenylamine	ND	340	
Azobenzene	ND	340	
4-Bromophenyl-phenylether	ND	340	
Hexachlorobenzene	ND	340	
Pentachlorophenol	ND	670	
Phenanthrene	ND	67	
Anthracene	ND	67	
Di-n-butylphthalate	ND	340	

ND= Not Detected RL= Reporting Limit Page 1 of 2



Semivolatile Organics by GC/MS					
Lab #: Client:	226688 PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Field_ID:	SB-25-7.5	Batch#: 172878			
Lab ID:	226688-002	Sampled: 03/16/11			
Matrix:	Soil	Received: 03/16/11			
Units:	ug/Kg	Prepared: 03/17/11			
Basis: Diln Fac:	as received 1.000	Analyzed: 03/18/11			

Analyte	Result	RL	
Fluoranthene	ND	67	
Pyrene	74	67	
Butylbenzylphthalate	ND	340	
3,3'-Dichlorobenzidine	ND	670	
Benzo(a)anthracene	ND	67	
Chrysene	ND	67	
bis(2-Ethylhexyl)phthalate	ND	340	
Di-n-octylphthalate	ND	340	
Benzo(b)fluoranthene	ND	67	
Benzo(k)fluoranthene	ND	67	
Benzo(a)pyrene	ND	67	
Indeno(1,2,3-cd)pyrene	ND	67	
Dibenz(a,h)anthracene	ND	67	
Benzo(g,h,i)perylene	ND	67	

Surrogate	%REC	Limits
2-Fluorophenol	82	35-120
Phenol-d5	84	33-120
2,4,6-Tribromophenol	77	30-120
Nitrobenzene-d5	72	43-120
2-Fluorobiphenyl	75	47-120
Terphenyl-d14	91	40-120

ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS					
Lab #: 226688 Location: 64th & Christie Emeryville, CA Client: PES Environmental, Inc. Prep: EPA 3550B Project#: 241.082.02.001 Analysis: EPA 8270C					
Type: Lab ID: Matrix: Units:	BLANK QC584221 Soil ug/Kg	Diln Fac: 1.000 Batch#: 172878 Prepared: 03/17/11 Analyzed: 03/17/11			

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	660
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	66
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	66
Hexachlorocyclopentadiene	ND	660
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	660
Dimethylphthalate	ND	330
Acenaphthylene	ND	66
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	660
Acenaphthene	ND	66
2,4-Dinitrophenol	ND	660
4-Nitrophenol	ND	660
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	66
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	660
4,6-Dinitro-2-methylphenol	ND	660
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	660
Phenanthrene	ND	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330
Fluoranthene	ND	66

ND= Not Detected RL= Reporting Limit Page 1 of 2



Semivolatile Organics by GC/MS				
Lab #:	226688	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B		
Project#:	241.082.02.001	Analysis: EPA 8270C		
Type: Lab ID:	BLANK	Diln Fac: 1.000		
Lab ID:	QC584221	Batch#: 172878		
Matrix:	Soil	Prepared: 03/17/11		
Units:	ug/Kg	Analyzed: 03/17/11		

Analyte	Result	RL	
Pyrene	ND	66	
Butylbenzylphthalate	ND	330	
3,3'-Dichlorobenzidine	ND	660	
Benzo(a)anthracene	ND	66	
Chrysene	ND	66	
bis(2-Ethylhexyl)phthalate	ND	330	
Di-n-octylphthalate	ND	330	
Benzo(b)fluoranthene	ND	66	
Benzo(k)fluoranthene	ND	66	
Benzo(a)pyrene	ND	66	
Indeno(1,2,3-cd)pyrene	ND	66	
Dibenz(a,h)anthracene	ND	66	
Benzo(g,h,i)perylene	ND	66	

Surrogate	%REC	Limits
2-Fluorophenol	93	35-120
Phenol-d5	94	33-120
2,4,6-Tribromophenol	69	30-120
Nitrobenzene-d5	70	43-120
2-Fluorobiphenyl	83	47-120
Terphenyl-d14	78	40-120

ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS					
Lab #:	226688	Location: 64th & Chr	istie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Type:	LCS	Diln Fac: 1.0	00		
Lab ID:	QC584222	Batch#: 172	878		
Matrix:	Soil	Prepared: 03/	17/11		
Units:	ug/Kg	Analyzed: 03/	17/11		

Analyte	Spiked	Result	%REC	Limits
Phenol	2,665	2,184	82	39-120
2-Chlorophenol	2,665	2,258	85	44-120
1,4-Dichlorobenzene	2,665	2,091	78	46-120
N-Nitroso-di-n-propylamine	2,665	2,209	83	33-120
1,2,4-Trichlorobenzene	2,665	2,200	83	48-120
4-Chloro-3-methylphenol	2,665	2,099	79	47-120
Acenaphthene	999.3	812.8	81	47-120
4-Nitrophenol	2,665	1,947	73	35-120
2,4-Dinitrotoluene	2,665	2,152	81	46-120
Pentachlorophenol	2,665	2,104	79	25-120
Pyrene	999.3	791.9	79	45-120

Surrogate	%REC	Limits
2-Fluorophenol	84	35-120
Phenol-d5	85	33-120
2,4,6-Tribromophenol	86	30-120
Nitrobenzene-d5	68	43-120
2-Fluorobiphenyl	72	47-120
Terphenyl-d14	68	40-120

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Semivolatile Organics by GC/MS					
Lab #:	226688	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Field ID:	ZZZZZZZZZZ	Batch#: 172878			
MSS Lab ID:	226568-028	Sampled: 03/09/11			
Matrix:	Soil	Received: 03/11/11			
Units:	ug/Kg	Prepared: 03/17/11			
Basis:	as received	Analyzed: 03/17/11			
Diln Fac:	1.000				

Type: MS Lab ID: QC584223

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<14.82	2,649	2,087	79	41-120
2-Chlorophenol	<13.77	2,649	2,137	81	44-120
1,4-Dichlorobenzene	<7.231	2,649	1,923	73	46-120
N-Nitroso-di-n-propylamine	<15.00	2,649	2,123	80	36-120
1,2,4-Trichlorobenzene	<8.374	2,649	2,035	77	48-120
4-Chloro-3-methylphenol	<8.558	2,649	2,007	76	47-120
Acenaphthene	<6.608	993.4	779.0	78	45-120
4-Nitrophenol	<6.996	2,649	1,951	74	35-120
2,4-Dinitrotoluene	<8.230	2,649	2,130	80	44-120
Pentachlorophenol	<101.3	2,649	1,659	63	19-120
Pyrene	<7.224	993.4	777.8	78	41-120

Surrogate	%REC	Limits
2-Fluorophenol	76	35-120
Phenol-d5	80	33-120
2,4,6-Tribromophenol	77	30-120
Nitrobenzene-d5	63	43-120
2-Fluorobiphenyl	68	47-120
Terphenyl-d14	67	40-120

Type: MSD Lab ID: QC584224

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	2,642	2,170	82	41-120	4	45
2-Chlorophenol	2,642	1,934	73	44-120	10	44
1,4-Dichlorobenzene	2,642	1,632	62	46-120	16	41
N-Nitroso-di-n-propylamine	2,642	2,418	92	36-120	13	50
1,2,4-Trichlorobenzene	2,642	1,566	59	48-120	26	39
4-Chloro-3-methylphenol	2,642	1,796	68	47-120	11	40
Acenaphthene	990.8	682.8	69	45-120	13	39
4-Nitrophenol	2,642	1,685	64	35-120	14	57
2,4-Dinitrotoluene	2,642	1,847	70	44-120	14	42
Pentachlorophenol	2,642	1,543	58	19-120	7	66
Pyrene	990.8	668.6	67	41-120	15	52

Surrogate	%REC	Limits
2-Fluorophenol	81	35-120
Phenol-d5	87	33-120
2,4,6-Tribromophenol	70	30-120
Nitrobenzene-d5	55	43-120
2-Fluorobiphenyl	61	47-120
Terphenyl-d14	58	40-120



California Title 22 Metals							
Lab #:	226688	Project#: 241.082	2.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-25-2.5	Basis:	as received				
Lab ID:	226688-001	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/16/11				
Units:	mg/Kg	Received:	03/16/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	10	0.50	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	7.8	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	190	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.44	0.10	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	0.71	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	36	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	13	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	89	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	150	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.52	0.020	172984	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	1.4	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	43	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	0.33	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	36	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	240	1.0	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226688	Project#: 241.08	2.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-25-7.5	Basis:	as received				
Lab ID:	226688-002	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/16/11				
Units:	mg/Kg	Received:	03/16/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	7.9	0.50	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	7.1	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	250	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	1.3	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	35	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	14	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	120	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	130	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.37	0.020	172984	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	0.87	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	41	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	35	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	300	1.0	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226688	Project#: 241.082.02.001					
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA					
Field ID:	SB-25-12.5	Basis: as received					
Lab ID:	226688-003	Diln Fac: 1.000					
Matrix:	Soil	Sampled: 03/16/11					
Units:	mg/Kg	Received: 03/16/11					

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	8.7	0.50	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	4.5	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	200	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.33	0.10	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	0.96	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	37	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	7.1	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	360	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	310	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.11	0.020	172984	03/21/11	03/21/11	METHOD	EPA 7471A
Molybdenum	1.2	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	30	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	0.58	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	0.78	0.50	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Vanadium	27	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	340	1.0	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals Project#: 241.082.02.001 Lab #: 226688 Client: PES Environmental, Inc. Location: 64th & Christie Emeryville, CA Field ID: SB-16-2.5 Basis: as received Lab ID: 226688-009 Sampled: 03/16/11 03/16/11 Matrix: Soil Received: Units: mg/Kg

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	10	0.50	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	15	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	280	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.36	0.10	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	1.2	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	44	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	13	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	190	0.25	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	230	0.25	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	1.6	0.21	10.00	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	2.8	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	49	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	0.44	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Vanadium	35	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	420	1.0	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B

ND= Not Detected RL= Reporting Limit

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California Title 22 Metals								
Lab #:	226688	Project#: 241.082.02.00)1					
Client:	PES Environmental, Inc.	Location: 64th & Christ	ie Emeryville, CA					
Field ID:	SB-16-7.5	Basis: as red	eived					
Lab ID:	226688-010	Sampled: 03/16/	11					
Matrix:	Soil mg/Kg	Received: 03/16/	11					

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	6.1	0.50	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	3.7	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	190	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.49	0.10	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	0.44	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	42	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	14	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	56	0.25	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	48	0.25	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	1.0	0.094	5.000	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	0.74	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	41	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	39	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	120	1.0	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226688	Project#: 241.08	32.02.001					
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA					
Field ID:	SB-16-12.5	Basis:	as received					
Lab ID:	226688-011	Diln Fac:	1.000					
Matrix:	Soil	Sampled:	03/16/11					
Units:	mg/Kg	Received:	03/16/11					

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	7.1	0.50	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	9.8	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	110	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.46	0.10	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	31	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	11	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	180	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	6.6	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.11	0.020	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	0.76	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	42	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	34	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	46	1.0	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B

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California Title 22 Metals								
Lab #:	226688	Project#: 241.082.02.001						
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA						
Field ID:	SB-17-2.5	Basis: as received						
Lab ID:	226688-012	Sampled: 03/16/11						
Matrix:	Soil	Received: 03/16/11						
Units:	ma/Ka							

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	12	0.50	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	27	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	320	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.36	0.10	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	4.7	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	40	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	9.7	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	550	2.2	10.00	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	430	0.25	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	5.2	0.22	10.00	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	0.80	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	38	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	1.5	0.50	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Silver	0.46	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Vanadium	30	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	630	8.9	10.00	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B

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California Title 22 Metals								
Lab #:	226688	Project#: 241.08	32.02.001					
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA					
Field ID:	SB-17-6.0	Basis:	as received					
Lab ID:	226688-013	Diln Fac:	1.000					
Matrix:	Soil	Sampled:	03/16/11					
Units:	mg/Kg	Received:	03/16/11					

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	4.4	0.50	172904 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Arsenic	3.2	0.25	172904 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Barium	130	0.25	172904 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	172904 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172904 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Chromium	42	0.25	172904 03/17/11	03/28/11 EPA 3050B	EPA 6010B
Cobalt	17	0.25	172904 03/17/11	03/28/11 EPA 3050B	EPA 6010B
Copper	19	0.25	172904 03/17/11	03/29/11 EPA 3050B	EPA 6010B
Lead	6.4	0.25	172904 03/17/11	03/29/11 EPA 3050B	EPA 6010B
Mercury	0.041	0.021	173016 03/22/11	03/22/11 METHOD	EPA 7471A
Molybdenum	0.47	0.25	172904 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Nickel	36	0.25	172904 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172904 03/17/11	03/28/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172904 03/17/11	03/28/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172904 03/17/11	03/28/11 EPA 3050B	EPA 6010B
Vanadium	37	0.25	172904 03/17/11	03/27/11 EPA 3050B	EPA 6010B
Zinc	32	1.0	172904 03/17/11	03/27/11 EPA 3050B	EPA 6010B

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California Title 22 Metals								
Lab #:	226688	Project#: 241.08	2.02.001					
Client:	PES Environmental, Inc.	Location: 64th &	: Christie Emeryville, CA					
Field ID:	SB-17-12.5	Basis:	as received					
Lab ID:	226688-014	Diln Fac:	1.000					
Matrix:	Soil	Sampled:	03/16/11					
Units:	mg/Kg	Received:	03/16/11					

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	2.4	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	29	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.15	0.10	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	9.3	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	2.2	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	12	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	19	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.13	0.020	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	0.35	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	13	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	1.4	0.50	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	11	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	25	1.0	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226688	Project#: 241.082.02.00	1					
Client:	PES Environmental, Inc.	Location: 64th & Christ	ie Emeryville, CA					
Field ID:	SB-32-2.5	Basis: as rec	eived					
Lab ID:	226688-020	Sampled: 03/16/	11					
Matrix:	Soil mg/Kg	Received: 03/16/	11					

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.3	0.50	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	2.3	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	130	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.25	0.10	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	1.3	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	35	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	6.8	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	120	0.25	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	110	0.25	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	2.5	0.10	5.000	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	2.1	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	32	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Vanadium	28	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	210	1.0	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226688	Project#: 241.082.02.001						
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA						
Field ID:	SB-32-7.5	Basis: as received						
Lab ID:	226688-021	Sampled: 03/16/11						
Matrix:	Soil	Received: 03/16/11						
Units:	mg/Kg							

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	8.1	0.50	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	6.5	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	760	2.2	10.00	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Beryllium	0.40	0.10	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	1.7	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	37	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	8.8	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	60	0.25	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	800	2.2	10.00	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.79	0.020	1.000	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	1.1	0.25	1.000	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Nickel	32	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Vanadium	40	0.25	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	340	1.0	1.000	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226688	Project#: 241.08	32.02.001					
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA					
Field ID:	SB-32-11.0	Basis:	as received					
Lab ID:	226688-022	Diln Fac:	1.000					
Matrix:	Soil	Sampled:	03/16/11					
Units:	mg/Kg	Received:	03/16/11					

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.7	0.50	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	3.1	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	180	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.41	0.10	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	80	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Cobalt	12	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Copper	18	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Lead	16	0.25	172904	03/17/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.22	0.020	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	0.55	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	31	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Thallium	0.96	0.50	172904	03/17/11	03/28/11	EPA 3050B	EPA 6010B
Vanadium	36	0.25	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	51	1.0	172904	03/17/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226688	Project#: 241.082.02.001						
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA						
Field ID:	SB-27-2.5	Basis: as received						
Lab ID:	226688-023	Sampled: 03/16/11						
Matrix:	Soil	Received: 03/16/11						
Units:	mq/Kq							

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	2.8	0.50	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	1.8	0.25	1.000	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	170	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.63	0.10	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Chromium	140	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cobalt	4.2	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Copper	33	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	9.9	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Mercury	1.4	0.10	5.000	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	0.55	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	16	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Vanadium	17	0.25	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Zinc	44	1.0	1.000	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals									
Lab #:	226688	Project#: 241.08	32.02.001						
Client:	PES Environmental, Inc.	Location: 64th 8	& Christie Emeryville, CA						
Field ID:	SB-27-7.5	Basis:	as received						
Lab ID:	226688-024	Diln Fac:	1.000						
Matrix:	Soil	Sampled:	03/16/11						
Units:	mg/Kg	Received:	03/16/11						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.8	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	3.6	0.25	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	190	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.50	0.10	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Chromium	53	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cobalt	16	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Copper	23	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	91	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Mercury	0.25	0.020	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	0.91	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	110	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Vanadium	40	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Zinc	71	1.0	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals									
Lab #:	226688	Project#: 241.08	2.02.001						
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA						
Field ID:	SB-27-12.5	Basis:	as received						
Lab ID:	226688-025	Diln Fac:	1.000						
Matrix:	Soil	Sampled:	03/16/11						
Units:	mg/Kg	Received:	03/16/11						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	6.1	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	4.5	0.25	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	120	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.33	0.10	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Chromium	35	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cobalt	8.1	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Copper	21	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	11	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Mercury	0.14	0.020	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	1.2	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	36	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Vanadium	34	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Zinc	44	1.0	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226688	Project#: 241.08	32.02.001					
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA					
Field ID:	SB-24-1.5	Basis:	as received					
Lab ID:	226688-026	Diln Fac:	1.000					
Matrix:	Soil	Sampled:	03/16/11					
Units:	mg/Kg	Received:	03/16/11					

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	9.2	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	6.8	0.25	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	200	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.66	0.10	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	0.38	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Chromium	21	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cobalt	11	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Copper	49	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	64	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Mercury	0.72	0.020	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	1.5	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	29	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Vanadium	29	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Zinc	130	1.0	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B

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California Title 22 Metals								
Lab #:	226688	Project#: 241.08	32.02.001					
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA					
Field ID:	SB-24-5.5	Basis:	as received					
Lab ID:	226688-027	Diln Fac:	1.000					
Matrix:	Soil	Sampled:	03/16/11					
Units:	mg/Kg	Received:	03/16/11					

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.7	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	8.9	0.25	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	180	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.28	0.10	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	1.4	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Chromium	41	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cobalt	6.9	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Copper	29	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	39	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Mercury	0.24	0.020	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	1.1	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	33	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Vanadium	27	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Zinc	110	1.0	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B



California Title 22 Metals					
Lab #:	226688	Project#: 241.08	32.02.001		
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA		
Field ID:	SB-24-12.0	Basis:	as received		
Lab ID:	226688-028	Diln Fac:	1.000		
Matrix:	Soil	Sampled:	03/16/11		
Units:	mg/Kg	Received:	03/16/11		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	2.0	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Arsenic	1.4	0.25	172905	03/17/11	03/27/11	EPA 3050B	EPA 6010B
Barium	28	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Beryllium	0.22	0.10	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Chromium	10	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Cobalt	2.4	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Copper	5.4	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Lead	21	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Mercury	0.42	0.020	173016	03/22/11	03/22/11	METHOD	EPA 7471A
Molybdenum	0.34	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Nickel	6.9	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Vanadium	8.0	0.25	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B
Zinc	31	1.0	172905	03/17/11	03/26/11	EPA 3050B	EPA 6010B

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California Title 22 Metals					
Lab #:	226688	Location: 64th & Christie Em	eryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3050B			
Project#:	241.082.02.001	Analysis: EPA 6010B			
Type:	BLANK	Diln Fac: 1.000			
Lab ID:	QC584329	Batch#: 172904			
Matrix:	Soil	Prepared: 03/17/11			
Units:	mg/Kg				

Analyte	Result	RL	Analyzed	
Antimony	ND	0.50	03/27/11	
Arsenic	ND	0.25	03/27/11	
Barium	ND	0.25	03/27/11	
Beryllium	ND	0.10	03/27/11	
Cadmium	ND	0.25	03/27/11	
Chromium	ND	0.25	03/28/11	
Cobalt	ND	0.25	03/28/11	
Copper	ND	0.25	03/28/11	
Lead	ND	0.25	03/29/11	
Molybdenum	ND	0.25	03/27/11	
Nickel	ND	0.25	03/27/11	
Selenium	ND	0.50	03/28/11	
Silver	ND	0.25	03/28/11	
Thallium	ND	0.50	03/28/11	
Vanadium	ND	0.25	03/27/11	
Zinc	ND	1.0	03/27/11	

ND= Not Detected RL= Reporting Limit

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California Title 22 Metals					
Lab #: Client: Project#:	226688 PES Environmental, Inc. 241.082.02.001	Location: 64th & Christie Emeryville, CA Prep: EPA 3050B Analysis: EPA 6010B			
Matrix: Units: Diln Fac:	Soil mg/Kg 1.000	Batch#: 172904 Prepared: 03/17/11			

Type: BS Lab ID: QC584330

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	100.0	102.5	102	80-120	03/27/11
Arsenic	50.00	53.80	108	80-120	03/27/11
Barium	100.0	100.5	100	80-120	03/27/11
Beryllium	2.500	2.627	105	80-120	03/27/11
Cadmium	10.00	10.43	104	80-120	03/27/11
Chromium	100.0	116.2	116	80-120	03/28/11
Cobalt	25.00	28.72	115	80-120	03/28/11
Copper	12.50	13.75	110	78-120	03/29/11
Lead	100.0	110.1	110	80-120	03/29/11
Molybdenum	20.00	20.37	102	80-120	03/27/11
Nickel	25.00	24.83	99	80-120	03/27/11
Selenium	50.00	58.26	117	80-120	03/28/11
Silver	10.00	11.19	112	80-120	03/28/11
Thallium	50.00	58.43	117	80-120	03/28/11
Vanadium	25.00	25.43	102	80-120	03/27/11
Zinc	25.00	25.55	102	80-120	03/27/11

Type: BSD Lab ID: QC584331

Analyte	Spiked	Result	%REC	Limits	RPD	Lim A	nalyzed
Antimony	100.0	102.3	102	80-120	0	20 C	3/27/11
Arsenic	50.00	53.89	108	80-120	0	20 C	3/27/11
Barium	100.0	101.8	102	80-120	1	20 0	3/27/11
Beryllium	2.500	2.637	105	80-120	0	20 C	3/27/11
Cadmium	10.00	10.37	104	80-120	1	20 0	3/27/11
Chromium	100.0	114.2	114	80-120	2	20 0	3/28/11
Cobalt	25.00	28.52	114	80-120	1	20 0	3/28/11
Copper	12.50	13.16	105	78-120	4	20 0	3/29/11
Lead	100.0	106.6	107	80-120	3	20 0	3/29/11
Molybdenum	20.00	20.47	102	80-120	1	20 0	3/27/11
Nickel	25.00	24.67	99	80-120	1	20 0	3/27/11
Selenium	50.00	58.10	116	80-120	0	20 0	3/28/11
Silver	10.00	11.08	111	80-120	1	20 0	3/28/11
Thallium	50.00	58.17	116	80-120	0	20 0	3/28/11
Vanadium	25.00	25.36	101	80-120	0	20 0	3/27/11
Zinc	25.00	25.51	102	80-120	0	20 C	3/27/11



California Title 22 Metals				
Lab #:	226688	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3050B		
Project#:	241.082.02.001	Analysis: EPA 6010B		
Field ID:	SB-25-2.5	Batch#: 172904		
MSS Lab ID:	226688-001	Sampled: 03/16/11		
Matrix:	Soil	Received: 03/16/11		
Units:	mg/Kg	Prepared: 03/17/11		
Basis:	as received	-		

Lab ID: QC584332 Type: MS

Analyte	MSS Result	Spiked	Result	%REC	Limits Diln Fac	Analyzed
Antimony	9.987	97.09	58.31	50	7-120 1.000	03/28/11
Arsenic	7.797	48.54	48.92	85	66-122 1.000	03/29/11
Barium	188.4	97.09	548.4	371 *	51-135 10.00	03/29/11
Beryllium	0.4407	2.427	2.831	98	73-120 1.000	03/28/11
Cadmium	0.7067	9.709	10.91	105	64-120 1.000	03/28/11
Chromium	35.65	97.09	140.8	108	57-122 1.000	03/28/11
Cobalt	12.82	24.27	34.00	87	53-122 1.000	03/28/11
Copper	88.65	12.14	143.5	452 NM	33-157 1.000	03/29/11
Lead	145.8	97.09	288.0	146 *	52-123 1.000	03/29/11
Molybdenum	1.383	19.42	18.10	86	66-120 1.000	03/29/11
Nickel	43.32	24.27	71.11	115	42-137 1.000	03/28/11
Selenium	0.2953	48.54	47.50	97	64-120 1.000	03/28/11
Silver	0.3323	9.709	9.588	95	65-120 1.000	03/29/11
Thallium	0.1729	48.54	46.53	95	55-120 1.000	03/29/11
Vanadium	36.15	24.27	65.31	120	49-139 1.000	03/28/11
Zinc	235.9	24.27	329.1	384 NM	32-155 1.000	03/29/11

Type: MSD Lab ID: QC584333

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac	Analyzed
Antimony	91.74	52.74	47	7-120	5	44	1.000	03/28/11
Arsenic	45.87	47.19	86	66-122	1	35	1.000	03/29/11
Barium	91.74	283.1	103	51-135	62 *	42	10.00	03/29/11
Beryllium	2.294	2.549	92	73-120	6	22	1.000	03/28/11
Cadmium	9.174	9.911	100	64-120	4	36	1.000	03/28/11
Chromium	91.74	124.5	97	57-122	8	34	1.000	03/28/11
Cobalt	22.94	31.18	80	53-122	5	32	1.000	03/28/11
Copper	11.47	106.3	154 NM	33-157	29	41	1.000	03/29/11
Lead	91.74	248.6	112	52-123	12	41	1.000	03/29/11
Molybdenum	18.35	17.86	90	66-120	4	20	1.000	03/29/11
Nickel	22.94	65.35	96	42-137	6	36	1.000	03/28/11
Selenium	45.87	44.32	96	64-120	1	28	1.000	03/28/11
Silver	9.174	9.068	95	65-120	0	27	1.000	03/29/11
Thallium	45.87	44.05	96	55-120	0	27	1.000	03/29/11
Vanadium	22.94	57.39	93	49-139	11	32	1.000	03/28/11
Zinc	22.94	264.5	125 NM	32-155	21	45	1.000	03/29/11

^{*=} Value outside of QC limits; see narrative NM= Not Meaningful: Sample concentration > 4X spike concentration RPD= Relative Percent Difference



California Title 22 Metals					
Lab #:	226688	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3050B			
Project#:	241.082.02.001	Analysis: EPA 6010B			
Type:	BLANK	Diln Fac: 1.000			
Lab ID:	QC584338	Batch#: 172905			
Matrix:	Soil	Prepared: 03/17/11			
Units:	mg/Kg	Analyzed: 03/18/11			

Analyte	Result	RL	
Antimony	ND	0.50	
Arsenic	ND	0.25	
Barium	ND	0.25	
Beryllium	ND	0.10	
Cadmium	ND	0.25	
Chromium	ND	0.25	
Cobalt	ND	0.25	
Copper	ND	0.26	
Lead	ND	0.25	
Molybdenum	ND	0.25	
Nickel	ND	0.25	
Selenium	ND	0.50	
Silver	ND	0.25	
Thallium	ND	0.50	
Vanadium	ND	0.25	
Zinc	ND	1.0	



California Title 22 Metals						
Lab #:	226688	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 3050B				
Project#:	241.082.02.001	Analysis: EPA 6010B				
Matrix:	Soil	Batch#: 172905				
Units:	mg/Kg	Prepared: 03/17/11				
Diln Fac:	1.000	Analyzed: 03/18/11				

Type: BS Lab ID: QC584339

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	101.3	101	80-120
Arsenic	50.00	52.09	104	80-120
Barium	100.0	98.06	98	80-120
Beryllium	2.500	2.500	100	80-120
Cadmium	10.00	10.21	102	80-120
Chromium	100.0	97.21	97	80-120
Cobalt	25.00	24.08	96	80-120
Copper	12.50	12.61	101	78-120
Lead	100.0	95.85	96	80-120
Molybdenum	20.00	20.29	101	80-120
Nickel	25.00	24.29	97	80-120
Selenium	50.00	47.84	96	80-120
Silver	10.00	9.774	98	80-120
Thallium	50.00	48.96	98	80-120
Vanadium	25.00	24.65	99	80-120
Zinc	25.00	24.72	99	80-120

Type: BSD Lab ID: QC584340

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	94.48	94	80-120	7	20
Arsenic	50.00	47.91	96	80-120	8	20
Barium	100.0	90.79	91	80-120	8	20
Beryllium	2.500	2.321	93	80-120	7	20
Cadmium	10.00	9.492	95	80-120	7	20
Chromium	100.0	89.83	90	80-120	8	20
Cobalt	25.00	22.25	89	80-120	8	20
Copper	12.50	11.92	95	78-120	6	20
Lead	100.0	89.22	89	80-120	7	20
Molybdenum	20.00	19.03	95	80-120	6	20
Nickel	25.00	22.35	89	80-120	8	20
Selenium	50.00	44.31	89	80-120	8	20
Silver	10.00	9.032	90	80-120	8	20
Thallium	50.00	45.69	91	80-120	7	20
Vanadium	25.00	22.82	91	80-120	8	20
Zinc	25.00	23.03	92	80-120	7	20



California Title 22 Metals			
Lab #:	226688	Location: 64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3050B	
Project#:	241.082.02.001	Analysis: EPA 6010B	
Field ID:	SB-13-2.5	Batch#: 172905	
MSS Lab ID:	226637-021	Sampled: 03/15/11	
Matrix:	Soil	Received: 03/15/11	
Units:	mg/Kg	Prepared: 03/17/11	
Basis:	as received	Analyzed: 03/18/11	
Diln Fac:	1.000		

Type: MS Lab ID: QC584341

Analyte	MSS Result	Spiked	Result	%REC Limits
Antimony	4.240	91.74	41.75	41 7-120
Arsenic	28.35	45.87	63.05	76 66-122
Barium	234.5	91.74	357.6	134 51-135
Beryllium	0.3233	2.294	2.457	93 73-120
Cadmium	0.9998	9.174	9.540	93 64-120
Chromium	33.58	91.74	116.1	90 57-122
Cobalt	9.389	22.94	29.02	86 53-122
Copper	189.7	11.47	257.9	595 NM 33-157
Lead	232.1	91.74	328.0	105 52-123
Molybdenum	1.133	18.35	16.55	84 66-120
Nickel	38.72	22.94	63.96	110 42-137
Selenium	<0.1393	45.87	39.01	85 64-120
Silver	0.2558	9.174	8.605	91 65-120
Thallium	<0.1553	45.87	37.11	81 55-120
Vanadium	32.52	22.94	55.75	101 49-139
Zinc	337.5	22.94	460.2 >LR	535 NM 32-155

Type: MSD Lab ID: QC584342

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	99.01	53.78	50	7-120	18	44
Arsenic	49.50	72.26	89	66-122	9	35
Barium	99.01	351.6	118	51-135	4	42
Beryllium	2.475	2.669	95	73-120	2	22
Cadmium	9.901	10.02	91	64-120	2	36
Chromium	99.01	125.9	93	57-122	3	34
Cobalt	24.75	30.66	86	53-122	0	32
Copper	12.38	178.5	-90 NM	33-157	37	41
Lead	99.01	372.5	142 *	52-123	10	41
Molybdenum	19.80	18.57	88	66-120	4	20
Nickel	24.75	62.47	96	42-137	5	36
Selenium	49.50	43.12	87	64-120	2	28
Silver	9.901	9.997	98	65-120	8	27
Thallium	49.50	41.72	84	55-120	4	27
Vanadium	24.75	56.50	97	49-139	2	32
Zinc	24.75	360.1	91 NM	32-155	NC	45

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^{*=} Value outside of QC limits; see narrative NC= Not Calculated NM= Not Meaningful: Sample concentration > 4X spike concentration >LR= Response exceeds instrument's linear range RPD= Relative Percent Difference



California Title 22 Metals				
Lab #:	226688	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METHOD		
Project#:	241.082.02.001	Analysis: EPA 7471A		
Analyte:	Mercury	Diln Fac: 1.000		
Type:	BLANK	Batch#: 172984		
Lab ID:	QC584617	Prepared: 03/21/11		
Matrix:	Soil	Analyzed: 03/21/11		
Units:	mg/Kg			

Result	RL	
ND	0.020	

ND= Not Detected RL= Reporting Limit

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California Title 22 Metals				
Lab #:	226688	Location: 64th &	Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: METHOD)	
Project#:	241.082.02.001	Analysis: EPA 74	171A	
Analyte:	Mercury	Batch#:	172984	
Matrix:	Soil	Prepared:	03/21/11	
Units:	mg/Kg	Analyzed:	03/21/11	
Diln Fac:	1.000			

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584618	0.2500	0.2810	112	80-120		
BSD	QC584619	0.2500	0.2780	111	80-120	1	20



California Title 22 Metals				
Lab #:	226688	Location: 64th & Christie Emeryvi	ille, CA	
Client:	PES Environmental, Inc.	Prep: METHOD		
Project#:	241.082.02.001	Analysis: EPA 7471A		
Analyte:	Mercury	Diln Fac: 1.000		
Field ID:	SB-25-2.5	Batch#: 172984		
MSS Lab ID:	226688-001	Sampled: 03/16/11		
Matrix:	Soil	Received: 03/16/11		
Units:	mg/Kg	Prepared: 03/21/11		
Basis:	as received	Analyzed: 03/21/11		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584620	0.5235	0.2551	0.8000	108	72-124		
MSD	QC584621		0.2660	0.9968	178 *	72-124	21	31

^{*=} Value outside of QC limits; see narrative
RPD= Relative Percent Difference
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California Title 22 Metals				
Lab #:	226688	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METHOD		
Project#:	241.082.02.001	Analysis: EPA 7471A		
Analyte:	Mercury	Diln Fac: 1.000		
Type:	BLANK	Batch#: 173016		
Lab ID:	QC584745	Prepared: 03/22/11		
Matrix:	Soil	Analyzed: 03/22/11		
Units:	mg/Kg			

Result	RL	
ND	0.020	

ND= Not Detected RL= Reporting Limit Page 1 of 1



California Title 22 Metals				
Lab #:	226688	Location: 64th &	Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: METHOD)	
Project#:	241.082.02.001	Analysis: EPA 74	171A	
Analyte:	Mercury	Batch#:	173016	
Matrix:	Soil	Prepared:	03/22/11	
Units:	mg/Kg	Analyzed:	03/22/11	
Diln Fac:	1.000			

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584746	0.2500	0.2640	106	80-120		
BSD	QC584747	0.2500	0.2640	106	80-120	0	20



California Title 22 Metals								
Lab #:	226688	Location: 64th & Christie Emeryville, CA						
Client:	PES Environmental, Inc.	Prep: METHOD						
Project#:	241.082.02.001	Analysis: EPA 7471A						
Analyte:	Mercury	Diln Fac: 1.000						
Field ID:	SB-32-2.5	Batch#: 173016						
MSS Lab ID:	226688-020	Sampled: 03/16/11						
Matrix:	Soil	Received: 03/16/11						
Units:	mg/Kg	Prepared: 03/22/11						
Basis:	as received	Analyzed: 03/22/11						

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584748	2.536	0.2500	1.330 >LF	R -482 NM	72-124		
MSD	QC584749		0.2451	1.284 >LF	R -511 NM	72-124	NC	31

NC= Not Calculated

 ${\tt NM=}$ Not Meaningful: Sample concentration > 4X spike concentration

>LR= Response exceeds instrument's linear range

RPD= Relative Percent Difference

Page 1 of 1 60.0





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 226712 ANALYTICAL REPORT

PES Environmental, Inc. Project : 241.082.02.001

1682 Novato Boulevard Location: 64th & Christie Emeryville, CA

Novato, CA 94947 Level : II

Sample ID	Lab ID	Sample ID	Lab ID
SB-20-1.5	226712-001	SB-26-6.5	226712-023
SB-20-8.5	226712-002	SB-26-12.5	226712-024
SB-20-12.5	226712-003	SB-26-20.0	226712-025
SB-35-2.5	226712-004	SB-22-2.5	226712-026
SB-35-8.5	226712-005	SB-22-7.0	226712-027
SB-35-12.5	226712-006	SB-22-12.5	226712-028
SB-11-2.5	226712-007	SB-19-2.5	226712-029
SB-11-7.5	226712-008	SB-19-7.5	226712-030
SB-11-12.5	226712-009	SB-19-12.5	226712-031
SB-34-2.5	226712-010	SB-28-1.5	226712-032
SB-34-8.5	226712-011	SB-28-7.5	226712-033
SB-34-10.5	226712-012	SB-28-12.5	226712-034
SB-21-2.5	226712-013	SB-28-16.0	226712-035
SB-21-8.5	226712-014	SB-28-20.0	226712-036
SB-21-12.5	226712-015	SB-18-2.5	226712-037
SB-33-2.5	226712-016	SB-18-7.0	226712-038
SB-33-8.5	226712-017	SB-18-12.5	226712-039
SB-33-12.5	226712-018	SB-30-2.0	226712-040
SB-23-2.5	226712-019	SB-30-8.5	226712-041
SB-23-7.0	226712-020	SB-30-12.5	226712-042
SB-23-12.5	226712-021	SB-30-15.5	226712-043
SB-26-1.5	226712-022	SB-30-20.0	226712-044

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

	Deine 7. Tetralt		
Signature:		Date:	03/30/2011
	Project Manager		

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 226712

Client: PES Environmental, Inc.

Project: 241.082.02.001

Location: 64th & Christie Emeryville, CA

Request Date: 03/17/11 Samples Received: 03/17/11

This data package contains sample and QC results for forty two soil samples, requested for the above referenced project on 03/17/11. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

High surrogate recoveries were observed for bromofluorobenzene (FID) in a number of samples. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

Low recoveries were observed for diesel C10-C24 in the MS/MSD of SB-20-1.5 (lab # 226712-001); the LCS was within limits, and the associated RPD was within limits. Low recoveries were observed for diesel C10-C24 in the MS/MSD of SB-20-12.5 (lab # 226712-003); the LCS was within limits, and the associated RPD was within limits. Low surrogate recoveries were observed for o-terphenyl in SB-20-1.5 (lab # 226712-001) and the MS/MSD of SB-20-1.5 (lab # 226712-001) due to the matrix of the sample. Many samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

Matrix spikes were not performed for this analysis in batch 172973 due to insufficient sample amount. High recoveries were observed for 1,1-dichloroethene and trichloroethene in the MS/MSD for batch 173019; the parent sample was not a project sample, the BS/BSD were within limits, the associated RPDs were within limits, and these analytes were not detected at or above the RL in the associated sample. Low surrogate recoveries were observed for dibromofluoromethane in the MS/MSD for batch 173019; the parent sample was not a project sample. SB-35-8.5 (lab # 226712-005) was diluted due to high hydrocarbons. No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):

SB-35-8.5 (lab # 226712-005) and SB-19-7.5 (lab # 226712-030) were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

High recoveries were observed for a number of analytes in the MS/MSD of SB-20-1.5 (lab # 226712-001); the BS/BSD were within limits. High RPD was observed for arsenic, lead, and antimony; the RPD was acceptable in the BS/BSD. High recoveries were observed for nickel and vanadium in the MS/MSD of SB-23-12.5 (lab # 226712-021); the BS/BSD were within limits, and the

Page 1 of 2



CASE NARRATIVE

Laboratory number: 226712

Client: PES Environmental, Inc.

Project: 241.082.02.001

Location: 64th & Christie Emeryville, CA

Request Date: 03/17/11 Samples Received: 03/17/11

Metals (EPA 6010B and EPA 7471A):

associated RPDs were within limits. Low recovery was observed for mercury in the MSD of SB-20-1.5 (lab # 226712-001); the BS/BSD were within limits, and the associated RPD was within limits. No other analytical problems were encountered.

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COOLER RECEIPT CHECKLIST

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CU	Curtis & Tompkins,	Ltd

Login #2267 [2 Client PES		3/17/11 pject 6414 & C	Number of coole	rs
Date Opened 3/17/11 B Date Logged in 3/19/11 B	y (print) MN'LLA y (print) R. R. M.	JUEV (sign) (sign)		7
1. Did cooler come with a sh Shipping info	ipping slip (airbill, et	tc)	YES	S 260
2A. Were custody seals present the many	Namet upon arrival? and intact when received out properly (ink, single from custody papers?	ved? gned, etc)? ? (If so fill out top	YES YES	NO TOA NO NO NO
☐ Bubble Wrap ☐ Cloth material 7. Temperature documentation		☐ Bags ☐ Styrofoam	☐ None ☐ Paper to	wels
Type of ice used:	Wet □ Blue/Gel	□None	Temp(°C)	
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	on ice directly from t	_		1
8. Were Method 5035 sampl If YES, what time we 9. Did all bottles arrive unbro 10. Are samples in the appro 11. Are sample labels present 12. Do the sample labels agre 13. Was sufficient amount of 14. Are the samples appropria 15. Are bubbles > 6mm abser	ing containers present to they transferred to ken/unopened?priate containers for a with custody paper sample sent for tests ately preserved?	freezer?/&s indicated tests? nd complete? s?	YES	YES NO YES NO YES NO YES NO YES NO YES NO YES NO NO NA
16. Was the client contacted of	concerning this samples?	le delivery?		NO WA YES NO
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COMMENTS -019 rock 5 prese	erved encorex o	and I jor.		

SOP Volume: Client Services

Section:

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Rev. 6 Number 1 of 3

Effective: 23 July 2008 Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc

Desiree Tetrault

From:

"Chris Baldassari" <cbaldassari@pesenv.com>

To:

"Desiree Tetrault" <desiree.tetrault@ctberk.com>; "Ken Simmons" <KSimmons@pesenv.com>

Sent:

Monday, March 21, 2011 12:56 PM

Subject:

RE: 241.082 adjustments

Hi Desiree,

We don't need gravity separation for the sample, but would like silica-gel cleanup performed; please no reporting/analysis for without silica gel.

The digestion fee on analyses started already sounds fair to me; we just want to be clear on which ones shouldn't have metals reported (indicated in the COCs sent by Kenny)

Thanks, Chris

From: Desiree Tetrault [mailto:desiree.tetrault@ctberk.com]

Sent: Monday, March 21, 2011 12:52 PM

To: Ken Simmons Cc: Chris Baldassari

Subject: Re: 241.082 adjustments

Hey Ken and Chris- thanks for the update. There shouldn't be any problems changing the IDs and the requests for analyses, although for logins 226688 and 226712 we have already prepped the samples for the metals. I can remove the analyses that you listed, but will have to charge a \$10 digestion fee for the ones already started.

Could you confirm that you do or do not need gravity separation for the last water sample (226732-001) submitted on Friday? Also, do you need the results to be reported with and without silica gel cleanup?

Thank you and please feel free to call with any questions.

Desirée Tétrault **Project Manager** Curtis and Tompkins, Ltd 2323 Fifth Street Berkeley CA 94710 510.204.2221

www.curtisandtompkins.com

---- Original Message -----From: Ken Simmons

To: desiree.tetrault@ctberk.com

Cc: Chris Baldassari

Sent: Monday, March 21, 2011 10:58 AM

Subject: 241.082 adjustments

Morning Desiree -

After reviewing the log-in sheets and COCs, there are a few adjustments to sample names and analysis that we would like to see.

	PES Envir	onmonial	Inc
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CHAIN OF CUSTODY RECORD

1682 NOVATO BOULEVARD, SUITE 100 NOVATO, CALIFORNIA 94947 (415) 899-1600 FAX (415) 899-1601

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METHOD OF SHIPMENT:

PES Environmental, Inc. Engineering & Environmental Services

CHAIN OF CUSTODY RECORD

1682 NOVATO BOULEVARD, SUITE 100 NOVATO, CALIFORNIA 94947 (415) 899-1600 FAX (415) 899-1601

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CHAIN OF CUSTODY RECORD

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CHAIN OF CUSTODY RECORD

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Location: 64th & Christie Emeryville, CA Prep: EPA 5035 Lab #: 226712

Client: Prep: PES Environmental, Inc. Project#: 241.082.02.001 Analysis: EPA 8015B

Matrix: Soil Sampled: 03/17/11 03/17/11 Units: mg/Kg Received:

Basis: as received

Field ID: SB-20-1.5 Diln Fac: 1.000 Batch#: 172985 Type: SAMPLE Lab ID: 03/22/11 226712-001 Analyzed:

Result Analyte RL

Gasoline C7-C12 ND 0.21

Surrogate %REC Limits Bromofluorobenzene (FID) 120 67-140

Field ID: SB-20-8.5 Diln Fac: 1.000 SAMPLE Batch#: 172985 Type: Lab ID: 03/22/11 226712-002 Analyzed:

Analyte Result

ND Gasoline C7-C12 0.19

%REC Limits Surrogate Bromofluorobenzene (FID) 115 67-140

1.000 Field ID: SB-20-12.5 Diln Fac: Type: SAMPLE Batch#: 172985 03/22/11 Lab ID: 226712-003 Analyzed:

Result Analyte

Gasoline C7-C12 0.17

Surrogate %REC Limits Bromofluorobenzene (FID)

SB-35-2.5 Field ID: Diln Fac: 1.000 Type: SAMPLE Batch#: 172985 Lab ID: 226712-004 Analyzed: 03/22/11

Analyte Result 0.15 Gasoline C7-C12 ND

%REC Limits

Surrogate Bromofluorobenzene (FID)

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 1 of 12



Lab #: 226712 Location: 64th & Christie Emeryville, CA

 Client:
 PES Environmental, Inc.
 Prep:
 EPA 5035

 Project#:
 241.082.02.001
 Analysis:
 EPA 8015B

 Matrix:
 Soil
 Sampled:
 03/17/11

 Units:
 mg/Kg
 Received:
 03/17/11

Basis: as received

Field ID: SB-35-8.5 Diln Fac: 10.00
Type: SAMPLE Batch#: 172998
Lab ID: 226712-005 Analyzed: 03/22/

Lab ID: 226712-005 Analyzed: 03/22/11

AnalyteResultRLGasoline C7-C12110 Y10

Surrogate %REC Limits
Bromofluorobenzene (FID) 158 * 67-140

Field ID: SB-35-12.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172985 Lab ID: 226712-006 Analyzed: 03/22/11

Analyte Result RL
Gasoline C7-C12 3.3 Y 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 163 * 67-140

Field ID: SB-11-2.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-007 Analyzed: 03/21/11

Analyte Result RL
Gasoline C7-C12 ND 0.16

Surrogate %REC Limits
Bromofluorobenzene (FID) 108 67-140

Field ID: SB-11-7.5 Diln Fac: 1.000
Type: SAMPLE Batch#: 172993
Lab ID: 226712-008 Analyzed: 03/21/11

Analyte Result RL
Gasoline C7-C12 ND 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 92 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 2 of 12



Lab #: 226712 Location: 64th & Christie Emeryville, CA

Client: EPA 5035 PES Environmental, Inc. Prep: Project#: 241.082.02.001 Analysis: EPA 8015B

Sampled: Soil Matrix: 03/17/11 Units: mg/Kg Received: 03/17/11

Basis: as received

Field ID: SB-11-12.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993

226712-009 Lab ID: Analyzed: 03/21/11

Result Analyte Gasoline C7-C12 ND 0.15

Limits Surrogate %REC Bromofluorobenzene (FID) 115 67-140

Field ID: SB-34-2.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-010 03/21/11 Analyzed:

Analyte Result RLGasoline C7-C12 0.36 Y 0.15

%REC Limits Surrogate 67-140 Bromofluorobenzene (FID)

Field ID: SB-34-8.5 Diln Fac: 25.00 SAMPLE 172993 Type: Batch#: 03/21/11 Lab ID: 226712-011 Analyzed:

Result Analyte RLGasoline C7-C12 50 Y 25

%REC Limits Surrogate Bromofluorobenzene (FID) 114

Field ID: SB-34-10.5 Diln Fac: 1.000 SAMPLE Batch#: 172993 Type: 03/21/11 Lab ID: 226712-012 Analyzed:

Analyte Result RL0.25 Gasoline C7-C12 11 Y

Surrogate %REC Limits Bromofluorobenzene (FID)

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226712 Location: 64th & Christie Emeryville, CA

Client: EPA 5035 PES Environmental, Inc. Prep: Project#: 241.082.02.001 Analysis: EPA 8015B

Sampled: Soil 03/17/11 Matrix: 03/17/11

Units: mg/Kg Received: Basis: as received

Field ID: SB-21-2.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 226712-013 Lab ID: Analyzed: 03/22/11

Result Analyte

Gasoline C7-C12 ND 0.17

Limits Surrogate %REC Bromofluorobenzene (FID) 103 67-140

Field ID: SB-21-8.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-014 03/22/11 Analyzed:

Analyte Result RLGasoline C7-C12 ND 0.15

%REC Limits Surrogate 104 Bromofluorobenzene (FID)

Field ID: SB-21-12.5 Diln Fac: 1.000 SAMPLE 172993

Type: Batch#: 03/22/11 Lab ID: 226712-015 Analyzed:

Result Analyte Gasoline C7-C12 4.1 Y 0.20

%REC Limits Surrogate Bromofluorobenzene (FID)

Field ID: SB-33-2.5 Diln Fac: 1.000 SAMPLE Batch#: 172993 Type:

03/22/11 Lab ID: 226712-016 Analyzed:

Analyte Result RLGasoline C7-C12 ND 0.16

%REC Limits Surrogate Bromofluorobenzene (FID)

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226712 Location: 64th & Christie Emeryville, CA

 Client:
 PES Environmental, Inc.
 Prep:
 EPA 5035

 Project#:
 241.082.02.001
 Analysis:
 EPA 8015B

 Matrix:
 Soil
 Sampled:
 03/17/11

 Units:
 mg/Kg
 Received:
 03/17/11

Basis: as received

 Field ID:
 SB-33-8.5
 Diln Fac:
 1.000

 Type:
 SAMPLE
 Batch#:
 172993

 Lab ID:
 226712-017
 Analyzed:
 03/22/11

Analyte Result RL

Gasoline C7-C12 2.2 Y 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 148 * 67-140

Field ID: SB-33-12.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-018 Analyzed: 03/22/11

Analyte Result RL

Gasoline C7-C12 ND 0.18

Surrogate %REC Limits
Bromofluorobenzene (FID) 100 67-140

Field ID: SB-23-2.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-019 Analyzed: 03/22/11

Analyte Result RL

Gasoline C7-C12 Result 0.51 Y 0.15

Surrogate %REC Limits
Bromofluorobenzene (FID) 104 67-140

Field ID: SB-23-7.0 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-020 Analyzed: 03/22/11

Analyte Result RL
Gasoline C7-C12 ND 0.16

Surrogate %REC Limits
Bromofluorobenzene (FID) 109 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226712 Location: 64th & Christie Emeryville, CA

 Client:
 PES Environmental, Inc.
 Prep:
 EPA 5035

 Project#:
 241.082.02.001
 Analysis:
 EPA 8015B

 Matrix:
 Soil
 Sampled:
 03/17/11

 Units:
 mg/Kg
 Received:
 03/17/11

Basis: as received

Field ID: SB-23-12.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-021 Analyzed: 03/22/11

Analyte Result RL

Gasoline C7-C12 0.39 Y 0.15

Surrogate %REC Limits
Bromofluorobenzene (FID) 111 67-140

Field ID: SB-26-1.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-022 Analyzed: 03/22/11

Analyte Result RL
Gasoline C7-C12 4.3 Y 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 82 67-140

Field ID: SB-26-6.5 Diln Fac: 1.000

Type: SAMPLE Batch#: 172993 Lab ID: 226712-023 Analyzed: 03/22/11

 Analyte
 Result
 RL

 Gasoline C7-C12
 1.5 Y
 0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 117 67-140

Field ID: SB-26-12.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-024 Analyzed: 03/22/11

Analyte Result RL
Gasoline C7-C12 5.2 Y 0.18

Surrogate %REC Limits
Bromofluorobenzene (FID) 86 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226712 Location: 64th & Christie Emeryville, CA

 Client:
 PES Environmental, Inc.
 Prep:
 EPA 5035

 Project#:
 241.082.02.001
 Analysis:
 EPA 8015B

 Matrix:
 Soil
 Sampled:
 03/17/11

 Units:
 mg/Kg
 Received:
 03/17/11

Basis: as received

Field ID: SB-26-20.0 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-025 Analyzed: 03/22/11

 Analyte
 Result
 RL

 Gasoline C7-C12
 0.43 Y
 0.15

Surrogate%RECLimitsBromofluorobenzene (FID)11367-140

Field ID: SB-22-2.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172993 Lab ID: 226712-026 Analyzed: 03/22/11

Analyte Result RL

Gasoline C7-C12 ND 0.18

Surrogate%RECLimitsBromofluorobenzene (FID)11567-140

Field ID: SB-22-7.0 Diln Fac: 1.000 Type: SAMPLE Batch#: 172998 Lab ID: 226712-027 Analyzed: 03/21/11

AnalyteResultRLGasoline C7-C121.20.23

Gasoline C7-C12 1.2 0.23

Surrogate %REC Limits
Bromofluorobenzene (FID) 102 67-140

Field ID: SB-22-12.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172998 Lab ID: 226712-028 Analyzed: 03/21/11

Analyte Result RL
Gasoline C7-C12 0.44 0.15

Surrogate %REC Limits
Bromofluorobenzene (FID) 110 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226712 Location: 64th & Christie Emeryville, CA

 Client:
 PES Environmental, Inc.
 Prep:
 EPA 5035

 Project#:
 241.082.02.001
 Analysis:
 EPA 8015B

 Matrix:
 Soil
 Sampled:
 03/17/11

 Units:
 mg/Kg
 Received:
 03/17/11

Basis: as received

 Field ID:
 SB-19-2.5
 Diln Fac:
 1.000

 Type:
 SAMPLE
 Batch#:
 172998

 Lab ID:
 226712-029
 Analyzed:
 03/21/11

AnalyteResultRLGasoline C7-C12ND0.17

Surrogate %REC Limits
Bromofluorobenzene (FID) 105 67-140

Field ID: SB-19-7.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172998 Lab ID: 226712-030 Analyzed: 03/21/11

AnalyteResultRLGasoline C7-C12ND0.20

Surrogate %REC Limits

Bromofluorobenzene (FID) 103 67-140

Field ID: SB-19-12.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172998 Lab ID: 226712-031 Analyzed: 03/22/11

Analyte Result RL
Gasoline C7-C12 1.4 Y 0.18

Surrogate %REC Limits
Bromofluorobenzene (FID) 109 67-140

Field ID: SB-28-1.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172998 Lab ID: 226712-032 Analyzed: 03/21/11

Analyte Result RL
Gasoline C7-C12 0.34 Y 0.15

Surrogate %REC Limits
Bromofluorobenzene (FID) 108 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit
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Lab #: 226712 Location: 64th & Christie Emeryville, CA

Client: EPA 5035 PES Environmental, Inc. Prep: Project#: 241.082.02.001 Analysis: EPA 8015B

Sampled: Soil 03/17/11 Matrix: Units: mg/Kg Received: 03/17/11

Basis: as received

Field ID: SB-28-7.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172998 226712-033 Lab ID: Analyzed: 03/21/11

Result Analyte

Gasoline C7-C12 ND 0.14

Limits Surrogate %REC Bromofluorobenzene (FID) 106 67-140

SB-28-12.5 Field ID: Diln Fac: 1.000 Type: SAMPLE Batch#: 172998 Lab ID: 226712-034 03/21/11

Analyzed: Analyte Result RL

Gasoline C7-C12 3.2 Y 0.17

%REC Limits Surrogate 67-140 Bromofluorobenzene (FID)

Field ID: SB-28-16.0 Diln Fac: 1.000 SAMPLE 172998 Type: Batch#: 03/22/11 Lab ID: 226712-035 Analyzed:

Result Analyte Gasoline C7-C12 ND 0.16

%REC Limits Surrogate Bromofluorobenzene (FID) 67-140

Field ID: SB-18-2.5 Diln Fac: 1.000 SAMPLE Batch#: 172998 Type: 03/22/11 Lab ID: 226712-037 Analyzed:

Analyte Result RLGasoline C7-C12 ND 0.17

%REC Limits Surrogate Bromofluorobenzene (FID)

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Lab #: 226712 Location: 64th & Christie Emeryville, CA

 Client:
 PES Environmental, Inc.
 Prep:
 EPA 5035

 Project#:
 241.082.02.001
 Analysis:
 EPA 8015B

 Matrix:
 Soil
 Sampled:
 03/17/11

 Units:
 mg/Kg
 Received:
 03/17/11

Basis: as received

 Field ID:
 SB-18-7.0
 Diln Fac:
 1.000

 Type:
 SAMPLE
 Batch#:
 172998

 Lab ID:
 226712-038
 Analyzed:
 03/22/11

Lab ID: 226/12-038 Analyzed: 03/22/11

Analyte Result RL
Gasoline C7-C12 ND 0.20

Surrogate%RECLimitsBromofluorobenzene (FID)10067-140

Field ID: SB-18-12.5 Diln Fac: 1.000 Type: SAMPLE Batch#: 172998 Lab ID: 226712-039 Analyzed: 03/22/11

 Analyte
 Result
 RL

 Gasoline C7-C12
 1.4 Y
 0.28

Surrogate %REC Limits
Bromofluorobenzene (FID) 121 67-140

Field ID: SB-30-2.0 Diln Fac: 25.00 Type: SAMPLE Batch#: 172998 Lab ID: 226712-040 Analyzed: 03/22/11

AnalyteResultRLGasoline C7-C12740 Y25

Surrogate %REC Limits
Bromofluorobenzene (FID) 105 67-140

Field ID: SB-30-8.5 Diln Fac: 20.00 Type: SAMPLE Batch#: 172998

Lab ID: 226712-041 Batch: 172996 Analyzed: 03/22/11

 Analyte
 Result
 RL

 Gasoline C7-C12
 680 Y
 20

Surrogate %REC Limits
Bromofluorobenzene (FID) 154 * 67-140

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit
Page 10 of 12



Lab #: 226712 Location: 64th & Christie Emeryville, CA

Client: EPA 5035 PES Environmental, Inc. Prep: Project#: 241.082.02.001 EPA 8015B Analysis:

Sampled: Soil Matrix: 03/17/11 Units: mg/Kg Received: 03/17/11

Basis: as received

Field ID: SB-30-12.5 Diln Fac: 10.00 173026 Type: SAMPLE Batch#: 226712-042 Lab ID: Analyzed: 03/22/11

Result

Analyte Gasoline C7-C12 46 Y 10

Limits Surrogate %REC Bromofluorobenzene (FID) 111 67-140

Field ID: SB-30-15.5 Diln Fac: 1.000 172998 Type: SAMPLE Batch#: Lab ID: 226712-043 03/22/11 Analyzed:

Analyte Result RL

Limits Surrogate %REC 67-140 Bromofluorobenzene (FID)

0.17

1.3 Υ

Type: BLANK Batch#: 172985 Lab ID: QC584624 03/21/11 Analyzed:

Diln Fac: $\tilde{1}.000$

Gasoline C7-C12

Result Analyte Gasoline C7-C12 ND 0.20

%REC Limits Surrogate Bromofluorobenzene (FID)

Type: BLANK Batch#: 172993 Lab ID: QC584655 Analyzed: 03/21/11 Diln Fac: $\tilde{1}.000$

Analyte Result RLGasoline C7-C12 ND 0.20

Surrogate %REC Limits Bromofluorobenzene (FID)

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Matrix: Soil Sampled: 03/17/11 Units: mg/Kg Received: 03/17/11 Basis: as received

Type: BLANK Batch#: 172998 Lab ID: QC584677 Analyzed: 03/21/11

Diln Fac: 1.000

Analyte Result RL
Gasoline C7-C12 ND 0.20

Surrogate %REC Limits
Bromofluorobenzene (FID) 99 67-140

Type: BLANK Batch#: 173026 Lab ID: QC584791 Analyzed: 03/22/11

Diln Fac: 1.000

Analyte Result RL
Gasoline C7-C12 ND 0.20

Surrogate %REC Limits
Bromofluorobenzene (FID) 95 67-140

ND= Not Detected

RL= Reporting Limit

Page 12 of 12

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard



	Gasoline by G	C/FID (5035 Prep)
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5035
Project#:	241.082.02.001	Analysis: EPA 8015B
Matrix:	Soil	Batch#: 172985
Units:	mg/Kg	Analyzed: 03/21/11
Diln Fac:	1.000	

Type: BS Lab ID: QC584622

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.019	102	79-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	110	67-140	

Type: BSD Lab ID: QC584623

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	0.9892	99	79-121	3	23

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	106	67-140	



	Gasoline by G	C/FID (5035 Prep)
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5035
Project#:	241.082.02.001	Analysis: EPA 8015B
Matrix:	Soil	Batch#: 172993
Units:	mg/Kg	Analyzed: 03/21/11
Diln Fac:	1.000	

Type: BS Lab ID: QC584656

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	5.000	4.491	90	79-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	101	67-140	

Type: BSD Lab ID: QC584657

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	5.000	4.658	93	79-121	4	23

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	104	67-140	



	Gasoline by G	C/FID (5035 Prep)
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5035
Project#:	241.082.02.001	Analysis: EPA 8015B
Matrix:	Soil	Batch#: 172998
Units:	mg/Kg	Analyzed: 03/21/11
Diln Fac:	1.000	

Type: BS Lab ID: QC584675

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.057	106	79-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	105	67-140	

Type: BSD Lab ID: QC584676

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	1.063	106	79-121	1	23

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	67-140



Batch QC Report

Gasoline by GC/FID (5035 Prep)						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5035				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Matrix:	Soil	Batch#: 173026				
Units:	mg/Kg	Analyzed: 03/22/11				
Diln Fac:	1.000					

Type: BS Lab ID: QC584789

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.090	109	79-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	98	67-140	

Type: BSD Lab ID: QC584790

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1.000	1.068	107	79-121	2	23

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	99	67-140	



Batch QC Report

Gasoline by GC/FID (5035 Prep)					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5030B			
Project#:	241.082.02.001	Analysis: EPA 8015B			
Field ID:	ZZZZZZZZZZ	Diln Fac: 1.000			
MSS Lab ID:	226779-001	Batch#: 173026			
Matrix:	Soil	Sampled: 03/22/11			
Units:	mg/Kg	Received: 03/22/11			
Basis:	as received	Analyzed: 03/22/11			

Type: MS Lab ID: QC584792

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.06573	10.87	8.713	80	41-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	67-140

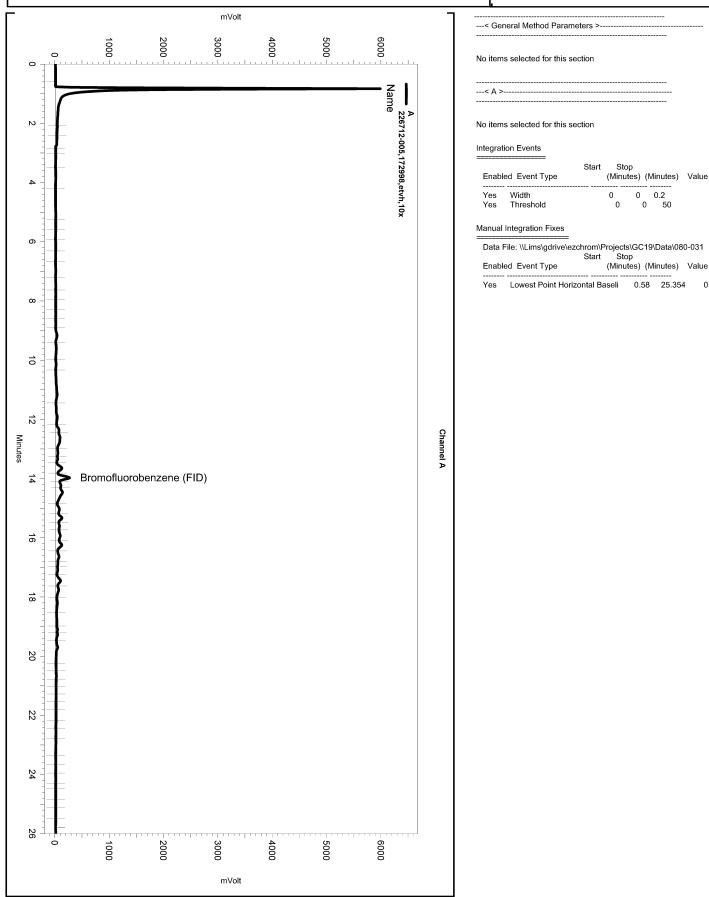
Type: MSD Lab ID: QC584793

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.53	8.924	84	41-120	6	47

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq Sample Name: 226712-005,172998,etvh,10x

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-031 |
Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) |
Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe068.met

Software Version 3.1.7 Run Date: 3/22/2011 1:55:24 PM Analysis Date: 3/23/2011 2:46:43 PM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: e,dc275

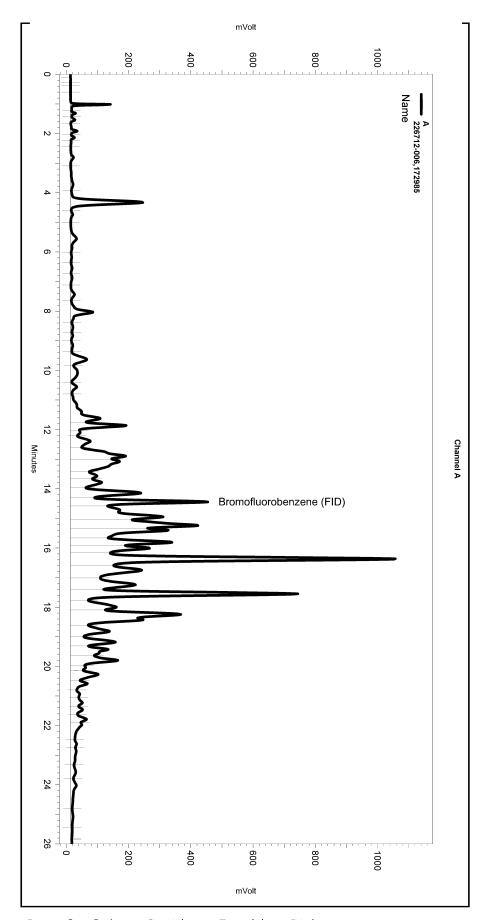


Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\080.seq

Sample Name: 226712-006,172985

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\080-027 Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/22/2011 5:13:18 AM Analysis Date: 3/22/2011 5:43:10 PM Sample Amount: 5.99 Multiplier: 5.99



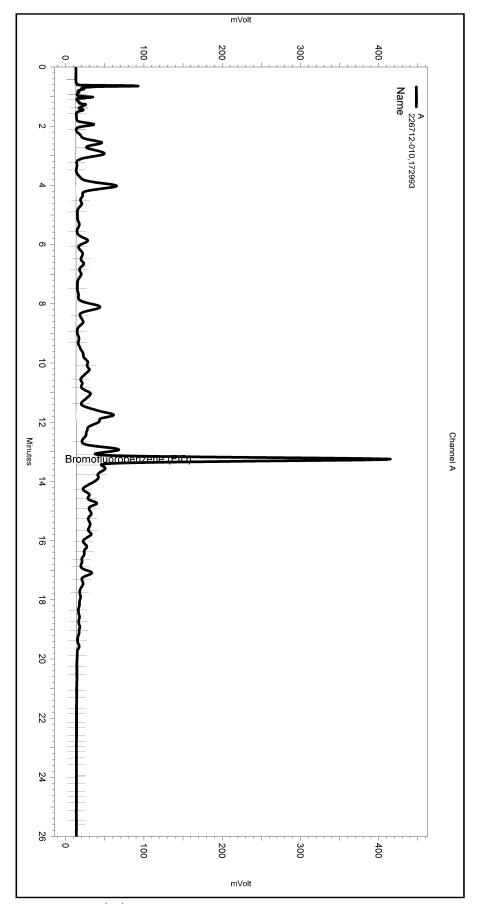
	eral Method Parar					
No items	s selected for this s	section				
< A >-						
	s selected for this son Events	section				
Enable	ed Event Type	Start	Sto (Minut		linutes)	Value
	Width Threshold		0	0	0.2 50	
Manual I	Integration Fixes					
Data F	ile: \\Lims\gdrive\e	ezchrom\F Start	Projects Sto		\Data\08	0-027
Enable	ed Event Type	Otari			linutes)	Value
Yes	Lowest Point Hor	rizontal Ba	aseli	0.048	25.7	5 (

Sample Name: 226712-010,172993

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\080-011

Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7 Run Date: 3/21/2011 8:06:38 PM Analysis Date: 3/21/2011 8:35:21 PM Sample Amount: 6.84 Multiplier: 6.84



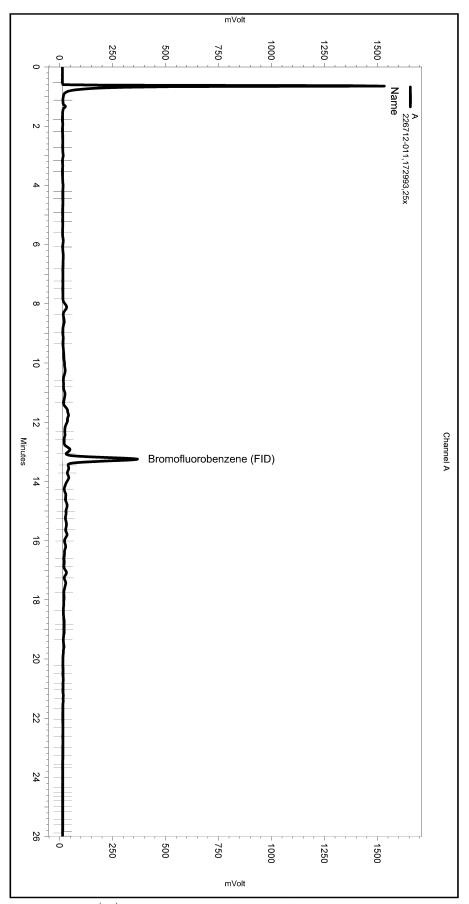
< General Method Parameters >-	
No items selected for this section	
< A >	
No items selected for this section	
Integration Events	
Start Enabled Event Type	Stop (Minutes) (Minutes) Value
Yes Width Yes Threshold	0 0 0.2 0 0 50
Manual Integration Fixes	
Data File: C:\Documents and Sett Data\ChromatographySystem\Reco Data\Instrument.10048\080-011_D4 Start	overy 41E.tmp
Enabled Event Type	(Minutes) (Minutes) Value
None	

Sample Name: 226712-011,172993,25x

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\080-012

Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7 Run Date: 3/21/2011 8:43:15 PM Analysis Date: 3/21/2011 9:11:58 PM Sample Amount: 1 Multiplier: 1

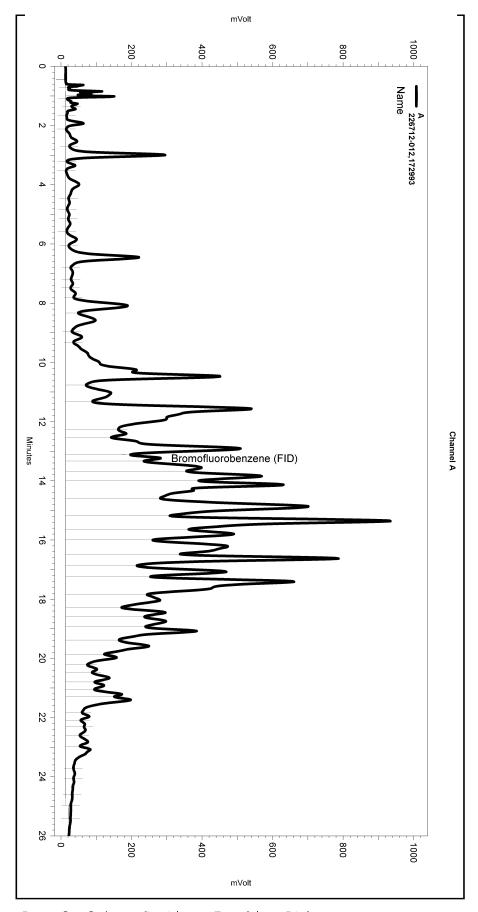


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Integration Events	
Start Enabled Event Type	(Minutes) (Minutes) Value
Yes Width Yes Threshold	0 0 0.2 0 0 50
Manual Integration Fixes	
Data File: C:\Documents and Sett Data\ChromatographySystem\Reco Data\Instrument.10048\080-012_D4 Start	very Inf.tmp
Enabled Event Type	(Minutes) (Minutes) Value
None	

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\080.seq

Software Version 3.1.7

Run Date: 3/21/2011 9:56:29 PM Analysis Date: 3/22/2011 10:22:48 AM Sample Amount: 4 Multiplier: 4



< General Method Parameters >-	
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Enabled Event Type	t Stop (Minutes) (Minutes) Value
Yes Width Yes Threshold	0 0 0.2 0 0 50
Manual Integration Fixes	
Data File: \\Lims\gdrive\ezchrom\	
Enabled Event Type	•
Yes Lowest Point Horizontal B	Baseli 0.323 24.97 0

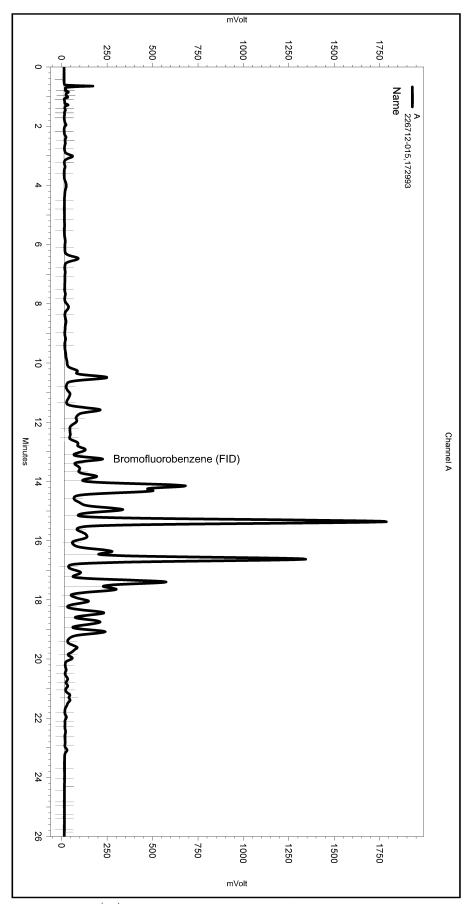
Sample Name: 226712-015,172993

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\080-035

Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 1:29:13 PM Analysis Date: 3/22/2011 1:57:54 PM Sample Amount: 5.12 Multiplier: 5.12



< General Method Parameters >
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No items selected for this section
Integration Events
Start Stop Enabled Event Type (Minutes) (Minutes) Value
Yes Width 0 0 0.2 Yes Threshold 0 0 50
Manual Integration Fixes
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\080-035_D437.tmp Start Stop
Enabled Event Type (Minutes) (Minutes) Valu
None

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\080.seq

Sample Name: 226712-017,172993

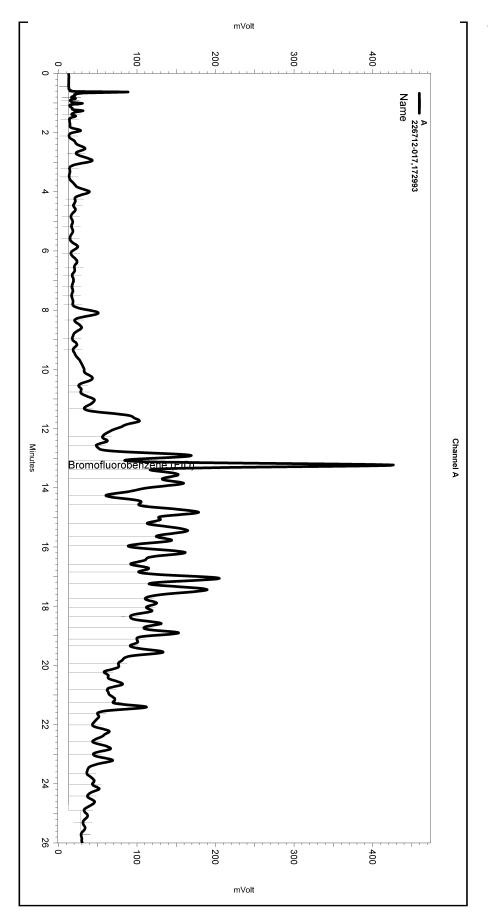
Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\080-021

Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)

Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 2:12:32 AM Analysis Date: 3/22/2011 10:25:00 AM Sample Amount: 5.96 Multiplier: 5.96



< General Method Parameters >-			
No items selected for this section			
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No items selected for this section			
Integration Events			
Start Enabled Event Type	(Minutes) (Minutes) Value
Yes Width Yes Threshold		0.2	
Manual Integration Fixes			
Data File: \\Lims\gdrive\ezchrom\\		C05\Data\0	80-021
Enabled Event Type		(Minutes)) Value
Yes Lowest Point Horizontal B	aseli 0.	365 25.0	054 0

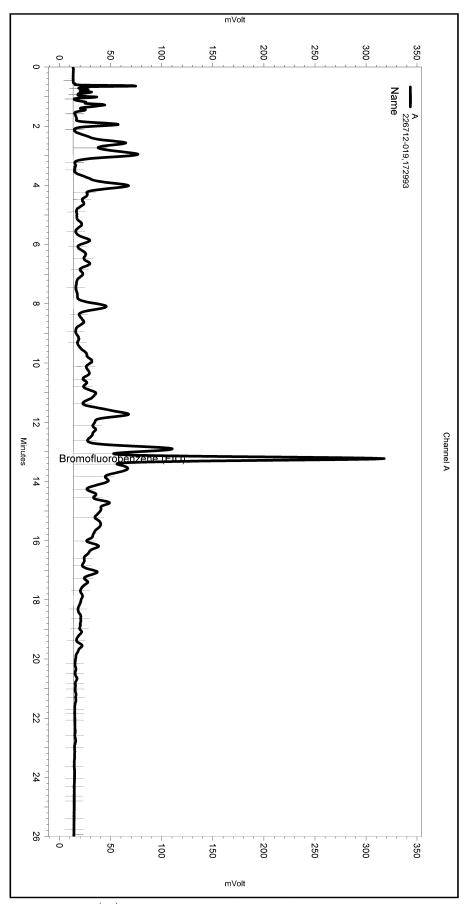
Sample Name: 226712-019,172993

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\080-023

Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 3:25:40 AM Analysis Date: 3/22/2011 3:54:23 AM Sample Amount: 6.59 Multiplier: 6.59



< General Method Parameters >	
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Integration Events	
Start Stop Enabled Event Type (Minutes) (Minutes) Va	lue
Yes Width 0 0 0.2 Yes Threshold 0 0 50	
Manual Integration Fixes	
Data File: C:\Documents and Settings\All Users\Application Data\ChromatographySystem\Recovery Data\Instrument.10048\080-023_D42A.tmp Start Stop	
Enabled Event Type (Minutes) (Minutes) Va	lue
None	

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\080.seq

Sample Name: 226712-021,172993

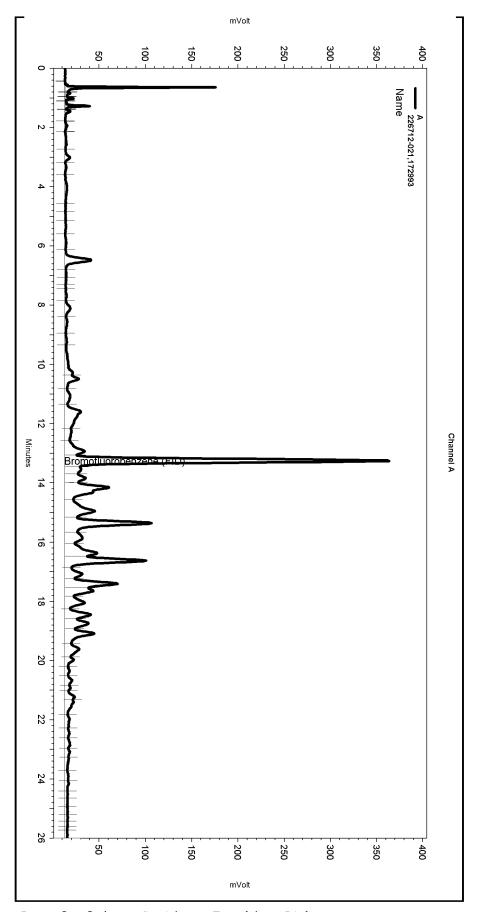
Data File: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Data\\080-036

Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)

Method Name: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Method\\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 2:08:51 PM Analysis Date: 3/22/2011 5:42:53 PM Sample Amount: 6.47 Multiplier: 6.47



< General Method Parameters >	
No items selected for this section	
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Integration Events	
Star Enabled Event Type	rt Stop (Minutes) (Minutes) Value
Yes Width Yes Threshold	0 0 0.2 0 0 50
Manual Integration Fixes	
Data File: \\Lims\gdrive\ezchrom	n\Projects\GC05\Data\080-036 rt Stop
Enabled Event Type	-
Yes Lowest Point Horizontal	Baseli 0.016 26.007 0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\080.seq

Sample Name: 226712-022,172993

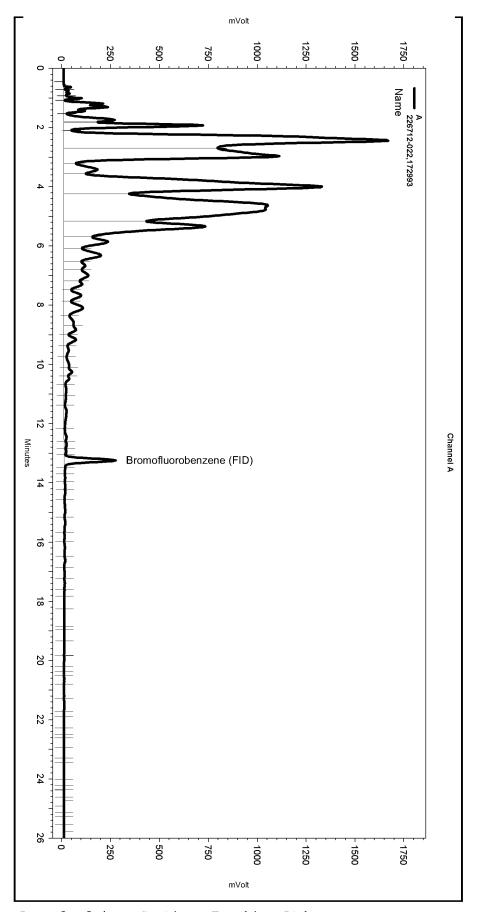
Data File: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Data\\080-026

Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)

Method Name: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Method\\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 5:15:18 AM Analysis Date: 3/22/2011 5:38:49 PM Sample Amount: 5.83 Multiplier: 5.83



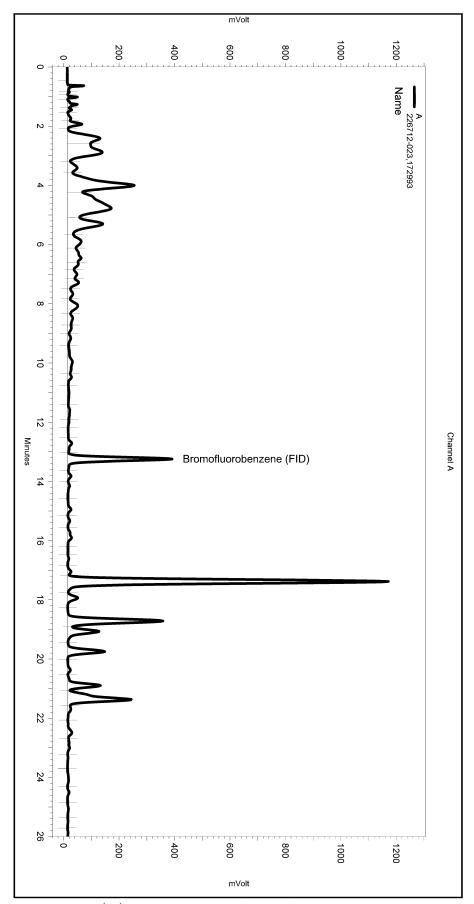
					_	
< Ger	neral Method Para	ameters >-			- 	
No item	s selected for this	section				
	s selected for this				-	
Integrat	ion Events					
Enabl	ed Event Type	Start	Stop (Minutes	s) (Min	utes)	Value
	Width Threshold		0	0 0.:	2 50	
Manual	Integration Fixes	_				
Data F	ile: \\Lims\gdrive	- \ezchrom\F Start		C05\D	ata\08	0-026
Enabl	ed Event Type	Start	(Minutes		utes)	Value
Yes	Split Peak		13.482		0	

Sample Name: 226712-023,172993

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\080-027

Instrument: GC05 Vial: N/A Operator: lims2k3\tvh3
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtxe068.met

Software Version 3.1.7 Run Date: 3/22/2011 5:51:53 AM Analysis Date: 3/22/2011 6:20:35 AM Sample Amount: 5.9 Multiplier: 5.9



< General Method Parameters >	
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Integration Events	
Start Enabled Event Type	(Minutes) (Minutes) Value
Yes Width Yes Threshold	0 0 0.2 0 0 50
Manual Integration Fixes	
Data File: C:\Documents and Setti Data\ChromatographySystem\Recov Data\Instrument.10048\080-027_D4 Start	very 2E.tmp
Enabled Event Type	(Minutes) (Minutes) Value
None	

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\080.seq

Sample Name: 226712-024,172993

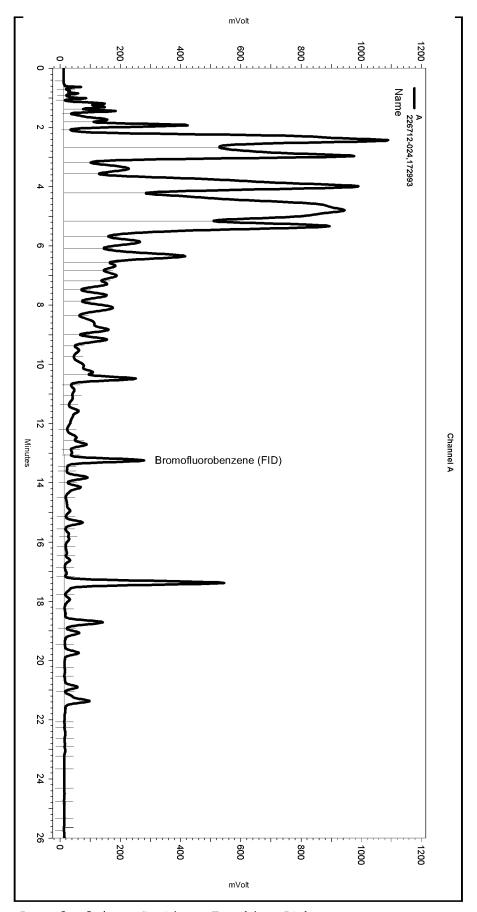
Data File: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Data\\080-028

Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)

Method Name: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Method\\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 6:28:29 AM Analysis Date: 3/22/2011 5:39:43 PM Sample Amount: 5.7 Multiplier: 5.7



< General Method Parameters >	>
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Integration Events	
Star Enabled Event Type	rt Stop (Minutes) (Minutes) Value
Yes Width Yes Threshold	0 0 0.2 0 0 50
Manual Integration Fixes	
Data File: \\Lims\gdrive\ezchrom	n\Projects\GC05\Data\080-028
Enabled Event Type	(Minutes) (Minutes) Value
Yes Split Peak	13.468 0 0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\080.seq

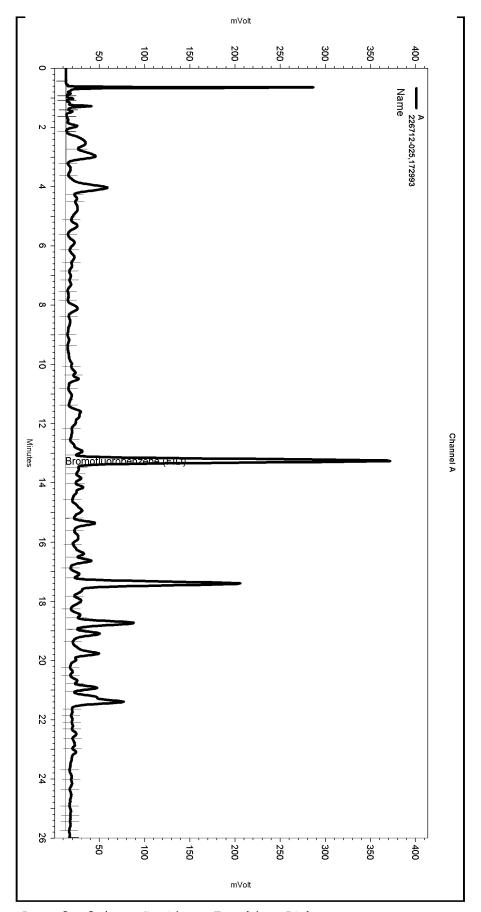
Sample Name: 226712-025,172993

Data File: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Data\\080-037

Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2) Method Name: \\Lims\\gdrive\ezchrom\\Projects\\GC05\\Method\\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 2:45:27 PM Analysis Date: 3/22/2011 5:43:20 PM Sample Amount: 6.71 Multiplier: 6.71



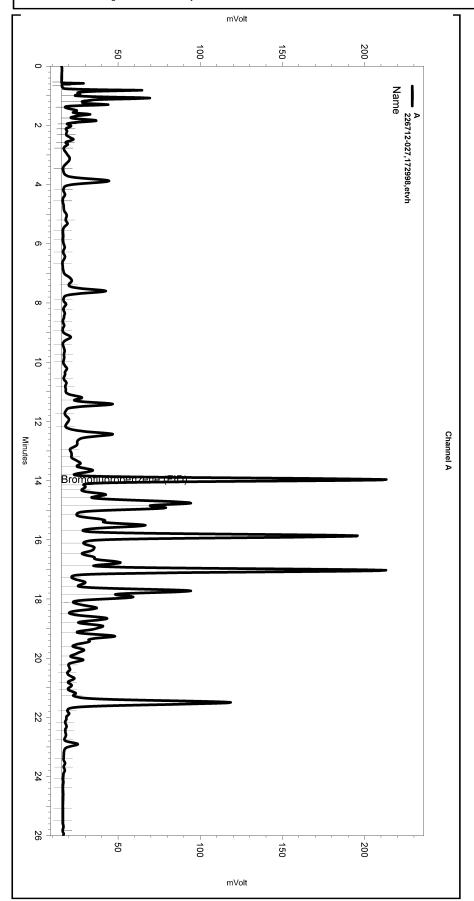
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No items selected for this section Integration Events	
integration Events	
	itop nutes) (Minutes) Value
Yes Width 0 Yes Threshold 0	0 0.2 0 50
Manual Integration Fixes	
Data File: \\Lims\gdrive\ezchrom\Projec	cts\GC05\Data\080-037
	nutes) (Minutes) Value
Yes Lowest Point Horizontal Baseli	0.233 25.815 0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq

Sample Name: 226712-027,172998,etvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-007 |
Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) |
Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe068.met

Software Version 3.1.7 Run Date: 3/21/2011 7:24:58 PM Analysis Date: 3/23/2011 2:25:54 PM Sample Amount: 4.28 Multiplier: 4.28 Vial & pH or Core ID: b



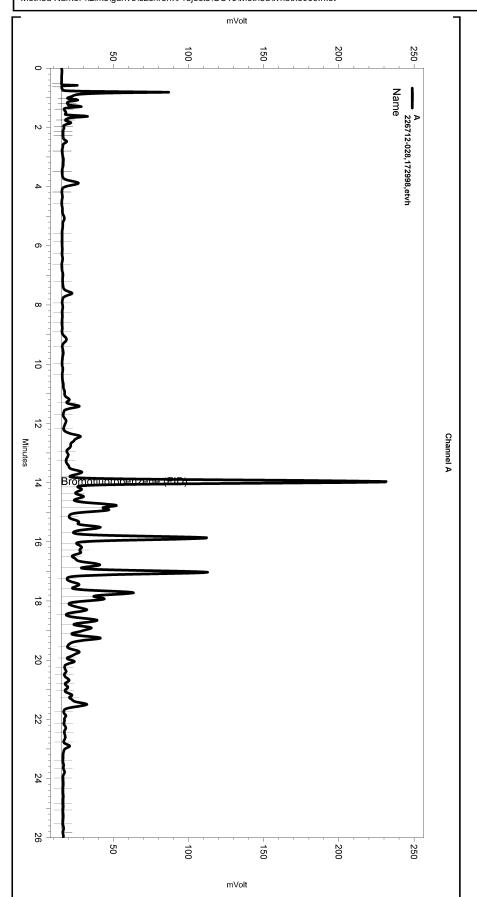
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Integration Events	
Start Stop Enabled Event Type (Minutes) (Minutes) Valu	ıe
Yes Width 0 0 0.2 Yes Threshold 0 0 50	
Manual Integration Fixes	
Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-007	7
Enabled Event Type (Minutes) (Minutes) Valu	ıe
	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq

Sample Name: 226712-028,172998,etvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-008 |
Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) |
Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe068.met

Software Version 3.1.7 Run Date: 3/21/2011 8:02:34 PM Analysis Date: 3/23/2011 2:27:12 PM Sample Amount: 6.52 Multiplier: 6.52 Vial & pH or Core ID: b



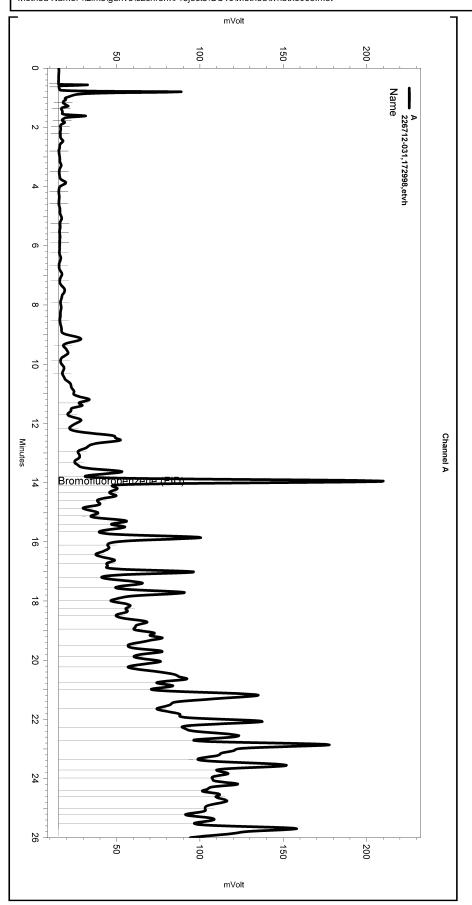
---< General Method Parameters >----No items selected for this section No items selected for this section Integration Events Stop (Minutes) (Minutes) Value Enabled Event Type Yes Width Threshold 0 0.2 0 50 Yes Manual Integration Fixes Data File: \\Lims\\gdrive\ezchrom\\Projects\\GC19\\Data\\080-008 \\Start \Stop \\((\text{Minutes}\)\) Value Lowest Point Horizontal Baseli 0.512 26.017

 $\label{lem:sequence} Sequence\ File: \verb|\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq| \\$

Sample Name: 226712-031,172998,etvh

Software Version 3.1.7

Run Date: 3/22/2011 12:17:49 PM Analysis Date: 3/23/2011 2:32:44 PM Sample Amount: 5.67 Multiplier: 5.67 Vial & pH or Core ID: b,dc275



< General Method Parameters >
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Integration Events
Start Stop Enabled Event Type (Minutes) (Minutes) Value
Yes Width 0 0 0.2 Yes Threshold 0 0 50
Manual Integration Fixes
Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-029 Start Stop
Enabled Event Type (Minutes) (Minutes) Value
Yes Lowest Point Horizontal Baseli 0.179 25.955 (

 $\label{lem:convergence} Sequence \ File: \verb|\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq| \\$

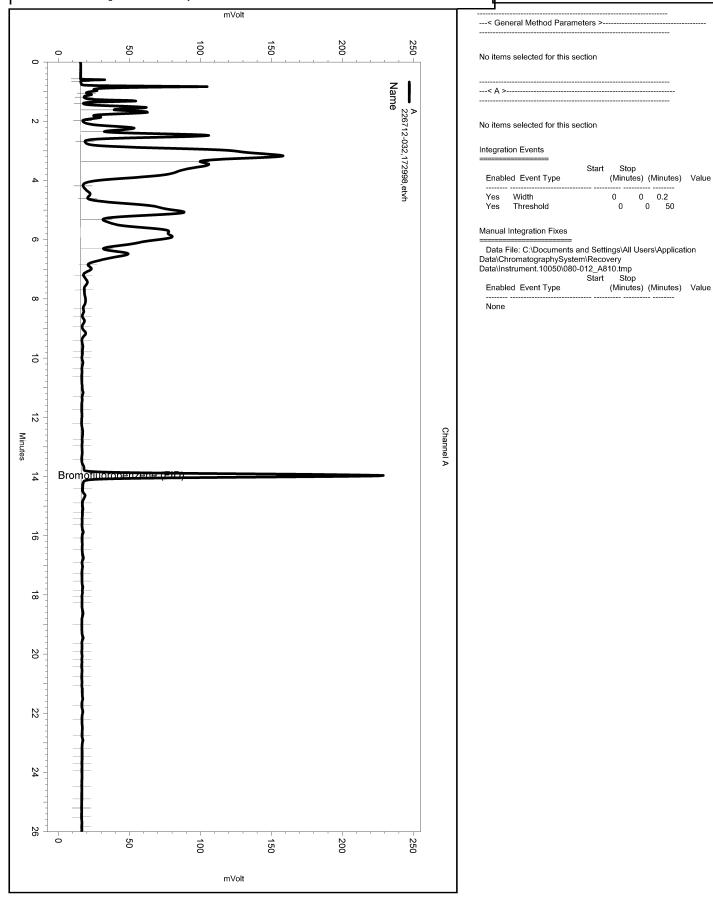
Sample Name: 226712-032,172998,etvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-012

Instrument: GC19 Vial: N/A Operator: lims2k3\tvh3

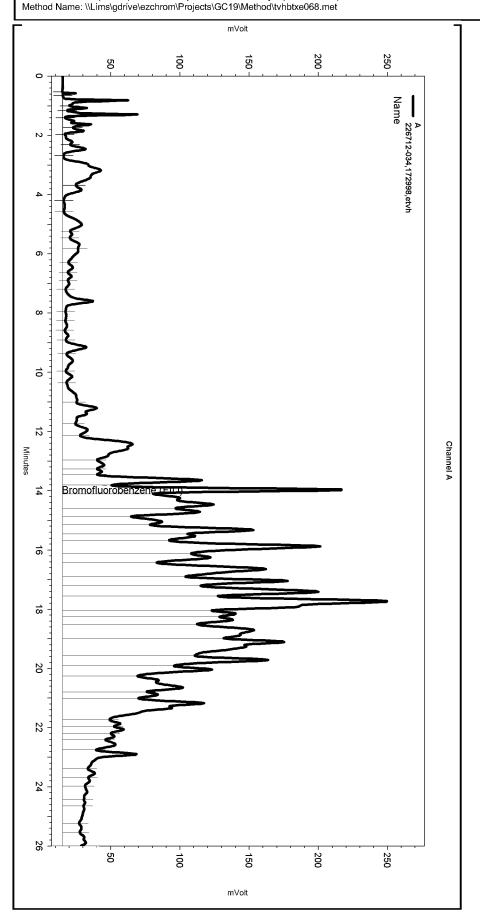
Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe068.met

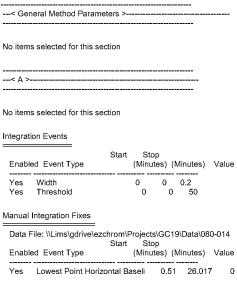
Software Version 3.1.7 Run Date: 3/21/2011 10:33:07 PM Analysis Date: 3/21/2011 11:02:16 PM Sample Amount: 6.61 Multiplier: 6.61 Vial & pH or Core ID: b



Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq Sample Name: 226712-034,172998,etvh Data File: \\Lims\gdrive\ezchrom\\Projects\GC19\Data\080-014 |
Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)
Method Name: \\Lims\gdrive\ezchrom\\Projects\GC19\Method\tvhbtxe068.met

Software Version 3.1.7 Run Date: 3/21/2011 11:48:22 PM Analysis Date: 3/22/2011 10:33:06 AM Sample Amount: 6.06 Multiplier: 6.06 Vial & pH or Core ID: b





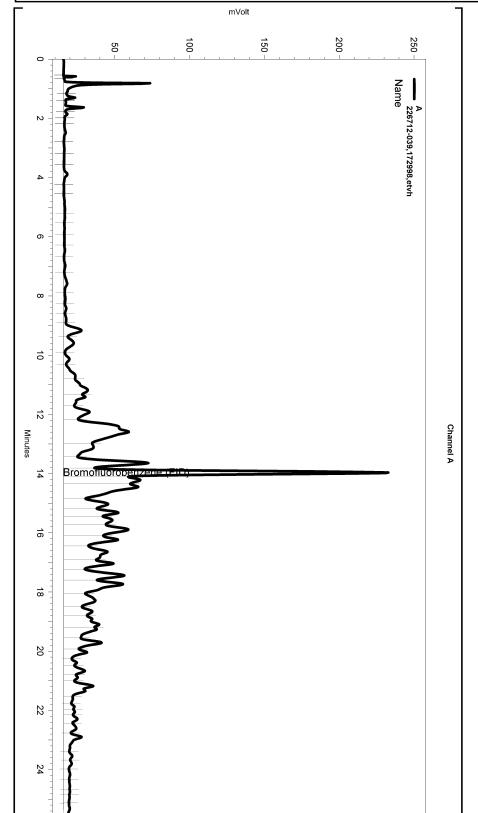
Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq

Sample Name: 226712-039,172998,etvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-021 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 4:11:30 AM Analysis Date: 3/23/2011 2:30:59 PM Sample Amount: 3.63 Multiplier: 3.63 Vial & pH or Core ID: b



200

150

mVolt

250

< General Method Parameters >	
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Integration Events	
Start Stop Enabled Event Type (Minutes) (M	linutes) Value
	0.2 50
Manual Integration Fixes	
Data File: \\Lims\gdrive\ezchrom\Projects\GC19	\Data\080-021
	linutes) Value
Yes Lowest Point Horizontal Baseli 0.512	25.553 0

100

50

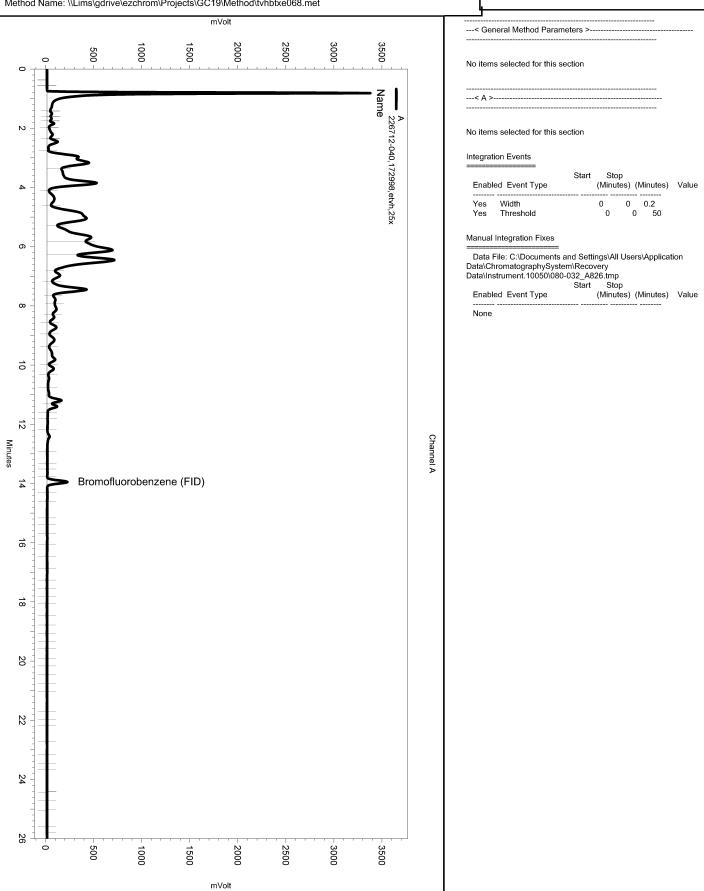
 $Sequence\ File: \verb|\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq|\\$ Sample Name: 226712-040,172998,etvh,25x

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-032

Instrument: GC19 Vial: N/A Operator: lims2k3\tvh3

Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe068.met

Software Version 3.1.7 Run Date: 3/22/2011 2:33:00 PM Analysis Date: 3/22/2011 3:02:08 PM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: e,dc275



Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq Sample Name: 226712-041,172998,etvh,20x

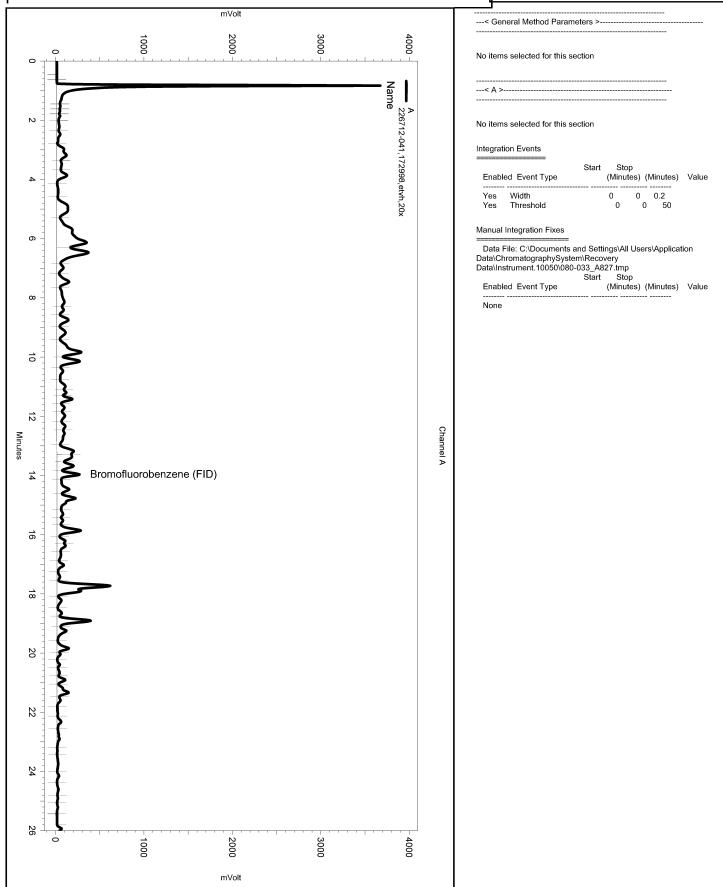
Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-033

Instrument: GC19 Vial: N/A Operator: lims2k3\tvh3

Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 3:10:31 PM Analysis Date: 3/22/2011 3:39:39 PM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: e,dc275



 $\label{lem:convergence} Sequence \ File: \verb|\Lims\gdrive\ezchrom\Projects\GC04\Sequence\081.seq| \\$

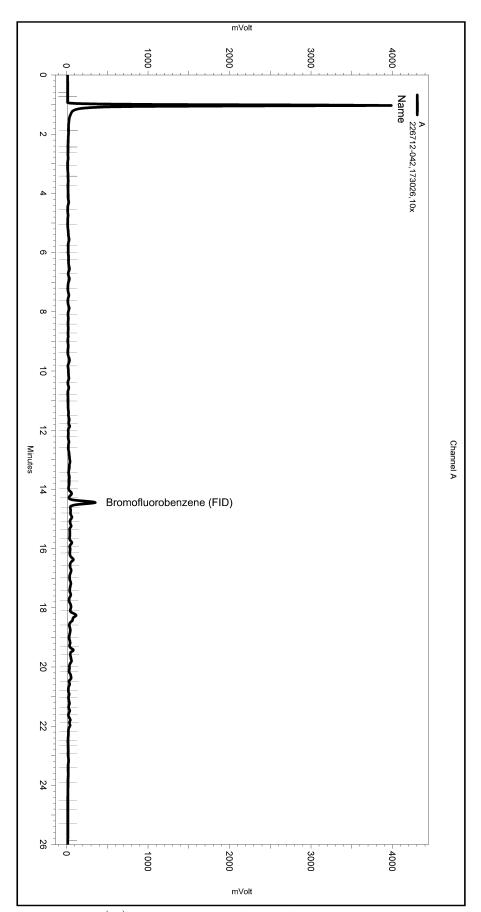
Sample Name: 226712-042,173026,10x

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\081-009

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/22/2011 7:22:00 PM Analysis Date: 3/22/2011 7:51:32 PM

Sample Amount: 1 Multiplier: 1



	(Minutes)	Value
	0.2 0 50	
0 tings\All Use overy DE3.tmp	0 50	ion
0 tings\All Use overy DE3.tmp Stop	0 50 ers\Applicati	
	Stop	

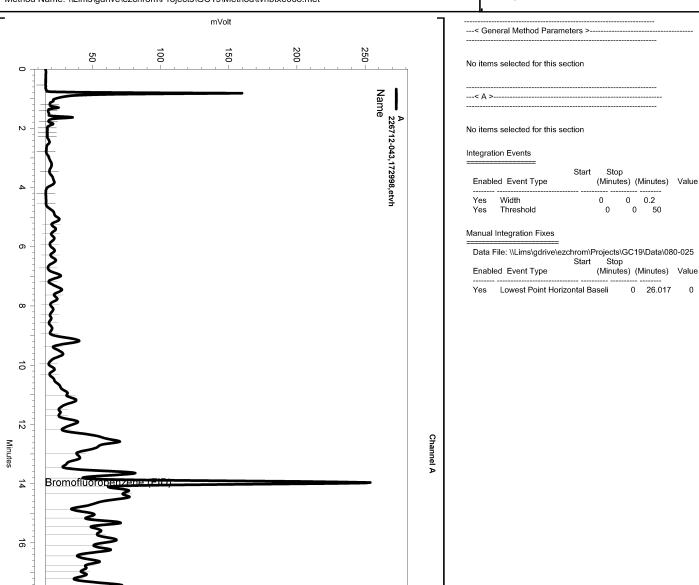
Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\080.seq

Sample Name: 226712-043,172998,etvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\080-025 |
Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1) |
Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe068.met

Software Version 3.1.7

Run Date: 3/22/2011 6:41:47 AM Analysis Date: 3/23/2011 2:31:46 PM Sample Amount: 5.85 Vial & pH or Core ID: b



200

250

100

150

mVolt

50

8

20

22

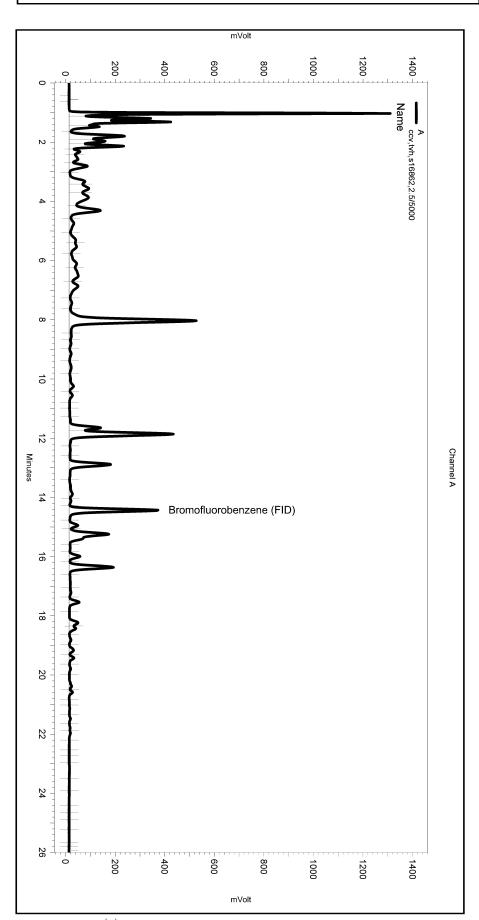
24

 $\label{lem:convergence} Sequence \ File: \verb|\Lims\gdrive\ezchrom\Projects\GC04\Sequence\080.seq| \\$ Sample Name: ccv,tvh,s16862,2.5/5000

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\080-002

Instrument: GC04 Vial: N/A Operator: lims2k3\tvh3 Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe061.met

Software Version 3.1.7 Run Date: 3/21/2011 12:34:41 PM Analysis Date: 3/21/2011 1:04:12 PM Sample Amount: 5 Multiplier: 5 Vial & pH or Core ID: {Data Description}



< Ger	neral Method Parame	ters >-				
No item	s selected for this sec	ction				
< A >						
No item	s selected for this sec	ction				
Integrat	ion Events					
Enabl	ed Event Type				Minutes)	Value
	Width Threshold			0	0.2 50	
Manual	Integration Fixes					
Data\Cl	File: C:\Documents and an arroward promatographySystem strument.10047\080-0	n\Reco	very B7.tmp		s\Applicat	ion
Enabl	ed Event Type			es) (l	Minutes)	Value
None						



Field ID: SB-20-1.5 Prepared: 03/21/11 Type: Analyzed: SAMPLE 03/21/11 SHAKER TABLE Lab ID: 226712-001 Prep: Diln Fac: 5.000 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	170 Y	5.0	
Motor Oil C24-C36	410	25	

Surrogate	%REC	Limits
o-Terphenyl	47 *	52-130

Field ID: SB-20-8.5 Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226712-002 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172970

Analyte	Result	RL	
Diesel C10-C24	76 Y	1.0	
Motor Oil C24-C36	170	5.0	

	Surrogate %REC	Limits
o-Terphen	Terphenyl 72	52-130

Field ID: SB-20-12.5 Prepared: 03/21/11 SAMPLE Analyzed: 03/22/11 Type: Lab ID: 226712-003 Prep: EPA 3550B Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	130 Y	1.0	
Motor Oil C24-C36	410	5.0	

Surrogate	%REC	Limits	
1094	OREIC	TITE CB	
o-Terphenyl	94	52-130	

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 1 of 16

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard



Field ID: SB-35-2.5 Prepared: 03/21/11 Analyzed: Type: SAMPLE 03/22/11 226712-004 EPA 3550B Lab ID: Prep: Diln Fac: 2.000 EPA 3630C Cleanup Method: Batch#: 172986

 Analyte
 Result
 RL

 Diesel C10-C24
 150 Y
 2.0

 Motor Oil C24-C36
 490
 9.9

Surrogate %REC Limits
o-Terphenyl 75 52-130

Field ID: SB-35-8.5 03/21/11 Prepared: 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226712-005 Prep: EPA 3550B Cleanup Method: EPA 3630C Diln Fac: 10.00 Batch#: 172986

 Analyte
 Result
 RL

 Diesel C10-C24
 490 Y
 10

 Motor Oil C24-C36
 1,300
 50

Surrogate %REC Limits
o-Terphenyl DO 52-130

Field ID: SB-35-12.5 Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226712-006 Prep: EPA 3550B Diln Fac: 2.000 Cleanup Method: EPA 3630C Batch#: 172986

 Analyte
 Result
 RL

 Diesel C10-C24
 310 Y
 2.0

 Motor Oil C24-C36
 1,000
 10

 Surrogate
 %REC
 Limits

 o-Terphenyl
 77
 52-130

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226712 Client: Analysis: EPA 8015B PES Environmental, Inc. Project#: 241.082.02.001 Sampled: Matrix: Soil 03/17/11 Units: mg/Kg Received: 03/17/11 Basis: as received

Field ID: SB-11-2.5 Prepared: 03/21/11 Analyzed: Type: SAMPLE 03/24/11 226712-007 Lab ID: Prep: EPA 3550B Diln Fac: 1.000 EPA 3630C Cleanup Method: Batch#: 172986

 Analyte
 Result
 RL

 Diesel C10-C24
 7.7 Y
 1.0

 Motor Oil C24-C36
 22
 5.0

Surrogate %REC Limits
o-Terphenyl 101 52-130

Field ID: SB-11-7.5 03/21/11 Prepared: Type: SAMPLE Analyzed: 03/22/11 Lab ID: 226712-008 Prep: EPA 3550B Cleanup Method: EPA 3630C Diln Fac: 1.000 Batch#: 172986

 Analyte
 Result
 RL

 Diesel C10-C24
 23 Y
 1.0

 Motor Oil C24-C36
 51
 5.0

Surrogate %REC Limits
o-Terphenyl 78 52-130

Field ID: SB-11-12.5 Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226712-009 Prep: EPA 3550B 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172986

 Analyte
 Result
 RL

 Diesel C10-C24
 20 Y
 1.0

 Motor Oil C24-C36
 51
 5.0

Surrogate %REC Limits
o-Terphenyl 69 52-130

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Field ID: SB-34-2.5 Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: EPA 3550B 226712-010 Prep: Diln Fac: 3.000 Cleanup Method: EPA 3630C Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	130 Y	3.0	
Motor Oil C24-C36	440	15	

Surrogate	%REC	Limits
o-Terphenyl	63	52-130

Field ID: SB-34-8.5 Prepared: 03/21/11 Type: SAMPLE Analyzed: 03/23/11 Lab ID: 226712-011 Prep: EPA 3550B 1.000 Cleanup Method: EPA 3630C Diln Fac: Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	510 Y	1.0	
Motor Oil C24-C36	380	5.0	

Surrogate	%REC	Limits
o-Terphenyl	82	52-130

03/21/11 Field ID: SB-34-10.5 Prepared: 03/23/11 Type: SAMPLE Analyzed: 226712-012 Prep: Lab ID: EPA 3550B 10.00 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	3,600 Y	10	
Motor Oil C24-C36	2,300	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Field ID: SB-21-2.5 Prepared: 03/21/11 Analyzed: 03/22/11 Type: SAMPLE Lab ID: EPA 3550B 226712-013 Prep: Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	34 Y	0.99	
Motor Oil C24-C36	61	5.0	

Surrogate	%REC	Limits
o-Terphenyl	68	52-130

Field ID: SB-21-8.5 03/21/11 Prepared: Type: SAMPLE Analyzed: 03/23/11 Lab ID: 226712-014 Prep: EPA 3550B Cleanup Method: EPA 3630C Diln Fac: 10.00 Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	150 Y	9.9	
Motor Oil C24-C36	530	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Prepared: Field ID: SB-21-12.5 03/21/11 03/22/11 Type: SAMPLE Analyzed: 226712-015 Prep: Lab ID: EPA 3550B 3.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	210 Y	3.0	
Motor Oil C24-C36	790	15	

Surrogate	%REC	Limits
o-Terphenyl	56	52-130

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Field ID: SB-33-2.5 Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: EPA 3550B 226712-016 Prep: 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	4.1 Y	1.0	
Motor Oil C24-C36	12	5.0	

Surrogate	%REC	Limits
o-Terphenyl	78	52-130

Field ID: SB-33-8.5 Prepared: 03/21/11 Type: SAMPLE Analyzed: 03/22/11 Lab ID: 226712-017 Prep: EPA 3550B Cleanup Method: EPA 3630C Diln Fac: 2.000 Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	180 Y	2.0	
Motor Oil C24-C36	300	9.9	

Surrogate	%REC	Limits
o-Terphenyl	78	52-130

Field ID: 03/21/11 SB-33-12.5 Prepared: 03/22/11 Type: SAMPLE Analyzed: Prep: Lab ID: 226712-018 EPA 3550B 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	41 Y	1.0	
Motor Oil C24-C36	33	5.0	

Surrogate	%REC	Limits
o-Terphenyl	70	52-130

RL= Reporting Limit

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out
ND= Not Detected



Field ID: SB-23-2.5 Prepared: 03/21/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: EPA 3550B 226712-019 Prep: Diln Fac: 2.000 Cleanup Method: EPA 3630C Batch#: 172986

Analyte	Result	RL	
Diesel C10-C24	48 Y	2.0	
Motor Oil C24-C36	160	10	

Surrogate	%REC	Limits
o-Terphenyl	84	52-130

Field ID: SB-23-7.0 Prepared: 03/22/11 Type: SAMPLE Analyzed: 03/22/11 Lab ID: 226712-020 Prep: SHAKER TABLE 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	41 Y	1.0	
Motor Oil C24-C36	35	5.0	

Surrogate	%REC	Limits
o-Terphenyl	88	52-130

SB-23-12.5 Prepared: 03/22/11 Field ID: 03/22/11 Type: SAMPLE Analyzed: 226712-021 Prep: Lab ID: SHAKER TABLE 3.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	91 Y	3.0	
Motor Oil C24-C36	230	15	

Surrogate	%REC	Limits
o-Terphenyl	57	52-130

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Field ID: SB-26-1.5 Prepared: 03/22/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226712-022 Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	170 Y	10	
Motor Oil C24-C36	640	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: SB-26-6.5 Prepared: 03/22/11 SAMPLE Type: Analyzed: 03/22/11 Lab ID: 226712-023 Prep: SHAKER TABLE Diln Fac: 3.000 Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	95 Y	3.0	
Motor Oil C24-C36	270	15	

Surrogate	%REC	Limits
o-Terphenyl	70	52-130

03/22/11 Field ID: SB-26-12.5 Prepared: 03/22/11 Type: SAMPLE Analyzed: Prep: Lab ID: 226712-024 SHAKER TABLE 6.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	69 Y	6.0	
Motor Oil C24-C36	280	30	

Surrogate	%REC	Limits
o-Terphenyl	63	52-130

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Field ID: SB-26-20.0 Prepared: 03/22/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226712-025 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	44 Y	1.0	
Motor Oil C24-C36	80	5.0	

Surrogat	e %REC	Limits	
o-Terphenyl	72	52-130	

Field ID: SB-22-2.5 Prepared: 03/22/11 Type: SAMPLE Analyzed: 03/23/11 Lab ID: 226712-026 Prep: SHAKER TABLE 6.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	310 Y	6.0	
Motor Oil C24-C36	540	30	

Surrogate	%REC	Limits
o-Terphenyl	79	52-130

SB-22-7.0 Field ID: Prepared: 03/22/11 03/23/11 Type: SAMPLE Analyzed: Lab ID: SHAKER TABLE 226712-027 Prep: 1.000 Diln Fac: EPA 3630C Cleanup Method: Batch#: 173022

 Analyte
 Result
 RL

 Diesel C10-C24
 1.0 Y
 0.99

 Motor Oil C24-C36
 ND
 5.0

Surrogate	%REC	Limits
o-Terphenyl	80	52-130

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Field ID: SB-22-12.5 Prepared: 03/22/11 03/23/11 Type: SAMPLE Analyzed: Lab ID: 226712-028 Prep: SHAKER TABLE Diln Fac: 10.00 Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	100 Y	10	
Motor Oil C24-C36	420	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

Field ID: SB-19-2.5 Prepared: 03/22/11 Type: SAMPLE Analyzed: 03/23/11 Lab ID: 226712-029 Prep: SHAKER TABLE 6.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	77 Y	6.0	
Motor Oil C24-C36	290	30	

Surrogate	%REC	Limits
o-Terphenyl	55	52-130

SB-19-7.5 Prepared: 03/22/11 Field ID: 03/22/11 Type: SAMPLE Analyzed: 226712-030 Prep: Lab ID: SHAKER TABLE 10.00 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	380 Y	10	
Motor Oil C24-C36	920	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226712 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 Soil Sampled: 03/17/11 Matrix: Units: mg/Kg Received: 03/17/11

Field ID: SB-19-12.5 Prepared: 03/22/11 03/22/11 Type: SAMPLE Analyzed: Lab ID: 226712-031 Prep: SHAKER TABLE Diln Fac: 3.000 Cleanup Method: EPA 3630C Batch#: 173022

as received

Analyte	Result	RL	
Diesel C10-C24	310 Y	3.0	
Motor Oil C24-C36	490	15	

Surrogate	%REC	Limits
o-Terphenyl	52	52-130

Field ID: SB-28-1.5 Prepared: 03/22/11 Type: SAMPLE Analyzed: 03/23/11 Lab ID: 226712-032 Prep: SHAKER TABLE 10.00 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	170 Y	10	
Motor Oil C24-C36	690	50	

Surrogate	%REC	Limits
o-Terphenyl	DO	52-130

SB-28-7.5 Field ID: Prepared: 03/22/11 03/23/11 Type: SAMPLE Analyzed: Lab ID: 226712-033 Prep: SHAKER TABLE 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173022

 Analyte
 Result
 RL

 Diesel C10-C24
 ND
 1.0

 Motor Oil C24-C36
 ND
 5.0

Surrogate	%REC	Limits	
o-Terphenyl	71	52-130	

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Basis:

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226712 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 Soil Sampled: 03/17/11 Matrix: Units: mg/Kg Received: 03/17/11 Basis: as received

Field ID: SB-28-12.5 Prepared: 03/22/11 03/23/11 Type: SAMPLE Analyzed: Lab ID: 226712-034 Prep: SHAKER TABLE Diln Fac: 5.000 Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	380 Y	5.0	
Motor Oil C24-C36	880	25	

Surrogate	%REC	Limits
o-Terphenyl	61	52-130

Field ID: SB-28-16.0 Prepared: 03/22/11 Type: SAMPLE Analyzed: 03/23/11 Lab ID: 226712-035 Prep: SHAKER TABLE Diln Fac: 1.000 Cleanup Method: EPA 3630C Batch#: 173022

Analyte	Result	RL	
Diesel C10-C24	6.7 Y	1.0	
Motor Oil C24-C36	11	5.0	

Surrogate	%REC	Limits
o-Terphenyl	66	52-130

03/28/11 Field ID: SB-18-2.5 Prepared: 03/29/11 Type: SAMPLE Analyzed: Lab ID: SHAKER TABLE 226712-037 Prep: 2.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173186

240

Analyte Result RL Diesel C10-C24 48 Y 2.0 Motor Oil C24-C36

Surrogate	%REC	Limits	
o-Terphenyl	79	52-130	

10

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226712 Client: Analysis: EPA 8015B PES Environmental, Inc. Project#: 241.082.02.001 Sampled: Matrix: Soil 03/17/11 Units: mg/Kg Received: 03/17/11 Basis: as received

Field ID: SB-18-7.0 Prepared: 03/22/11 Analyzed: Type: SAMPLE 03/23/11 Lab ID: 226712-038 Prep: SHAKER TABLE Diln Fac: 1.000 EPA 3630C Cleanup Method: Batch#: 173022

Analyte Result RLDiesel C10-C24 16 Y 1.0 Motor Oil C24-C36 71 5.0

Surrogate %REC Limits 59 52-130 o-Terphenyl

Field ID: SB-18-12.5 03/22/11 Prepared: Type: SAMPLE Analyzed: 03/23/11 Lab ID: 226712-039 Prep: SHAKER TABLE Diln Fac: 20.00 Cleanup Method: EPA 3630C Batch#: 173022

Result Analyte RL Diesel C10-C24 390 Y 20 ,800 100 Motor Oil C24-C36

%REC Limits Surrogate 52-130 o-Terphenyl DO

SB-30-2.0 Field ID: Prepared: 03/22/11 03/24/11 Type: SAMPLE Analyzed: Lab ID: 226712-040 Prep: SHAKER TABLE 1.000 Diln Fac: EPA 3630C Cleanup Method: Batch#: 173022

Analyte Result RL Diesel C10-C24 49 0.99 Motor Oil C24-C36 <u>5</u>.0 49

Surrogate %REC Limits 52 o-Terphenyl 52-130

RL= Reporting Limit

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^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226712 Analysis: EPA 8015B Client: PES Environmental, Inc. Project#: 241.082.02.001 Soil 03/17/11 Matrix: Sampled: Units: mg/Kg Received: 03/17/11 Basis: as received

Field ID: SB-30-8.5 Prepared: 03/22/11 Analyzed: 03/22/11 Type: SAMPLE Lab ID: EPA 3550B 226712-041 Prep: Diln Fac: 3.000 Cleanup Method: EPA 3630C Batch#: 173041

Analyte	Result	RL	
Diesel C10-C24	280 Y 720	3.0	
Motor Oil C24-C36	720	15	

Surrogate	%REC	Limits
o-Terphenyl	61	52-130

Field ID: SB-30-12.5 03/22/11 Prepared: Type: SAMPLE Analyzed: 03/23/11 Lab ID: 226712-042 Prep: EPA 3550B Cleanup Method: EPA 3630C Diln Fac: 1.000 Batch#: 173041

Analyte	Result	RL	
Diesel C10-C24	120 Y	1.0	
Motor Oil C24-C36	180	5.0	

Surrogate	%REC	Limits
o-Terphenyl	72	52-130

SB-30-15.5 03/22/11 Field ID: Prepared: 03/23/11 Type: SAMPLE Analyzed: 226712-043 Prep: Lab ID: EPA 3550B 1.000 Diln Fac: Cleanup Method: EPA 3630C Batch#: 173041

Analyte	Result	RL	
Diesel C10-C24	53 Y	1.0	
Motor Oil C24-C36	69	5.0	

Surrogate	%REC	Limits
o-Terphenyl	90	52-130

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73.1

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226712 Client: Analysis: EPA 8015B PES Environmental, Inc. Project#: 241.082.02.001 Soil Sampled: Matrix: 03/17/11 Units: mg/Kg Received: 03/17/11 Basis: as received

Type: BLANK Prepared: 03/21/11
Lab ID: QC584569 Analyzed: 03/21/11
Diln Fac: 1.000 Prep: SHAKER TABLE
Batch#: 172970 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits	
Surrogate	-SKEC	птштср	
o-Terphenyl	65	52-130	
O TELDITETIAL	0.5	JZ 130	

Type: BLANK Prepared: 03/21/11
Lab ID: QC584625 Analyzed: 03/22/11
Diln Fac: 1.000 Prep: EPA 3550B
Batch#: 172986 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Type: BLANK Prepared: 03/22/11
Lab ID: QC584771 Analyzed: 03/23/11
Diln Fac: 1.000 Prep: SHAKER TABLE
Batch#: 173022 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits		
o-Terphenyl	56	52-130		

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73.1

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit



Total Extractable Hydrocarbons Location: 64th & Christie Emeryville, CA Lab #: 226712 Client: PES Environmental, Inc. Analysis: EPA 8015B Project#: 241.082.02.001 Sampled: Matrix: Soil 03/17/11 Units: mg/Kg Received: 03/17/11 Basis: as received

Type: BLANK Prepared: 03/22/11
Lab ID: QC584843 Analyzed: 03/23/11
Diln Fac: 1.000 Prep: EPA 3550B
Batch#: 173041 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits	
Surrogate	-9KEC	JIMI CS	
o-Terphenyl	92	52-130	

Type: BLANK Prepared: 03/28/11
Lab ID: QC585451 Analyzed: 03/29/11
Diln Fac: 1.000 Prep: SHAKER TABLE
Batch#: 173186 Cleanup Method: EPA 3630C

Analyte	Result	RL	
Diesel C10-C24	ND	1.0	
Motor Oil C24-C36	ND	5.0	

Surrogate	%REC	Limits
o-Terphenyl	76	52-130

RL= Reporting Limit

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73.1

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected



Total Extractable Hydrocarbons					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE			
Project#:	241.082.02.001	Analysis: EPA 8015B			
Type:	LCS	Diln Fac: 1.000			
Lab ID:	QC584570	Batch#: 172970			
Matrix:	Soil	Prepared: 03/21/11			
Units:	mg/Kg	Analyzed: 03/22/11			

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.94	35.13	70	44-151

Surrogate	%REC	Limits
o-Terphenyl	91	52-130

Page 1 of 1 74.0



Total Extractable Hydrocarbons					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE			
Project#:	241.082.02.001	Analysis: EPA 8015B			
Field ID:	SB-20-1.5	Batch#: 172970			
MSS Lab ID:	226712-001	Sampled: 03/17/11			
Matrix:	Soil	Received: 03/17/11			
Units:	mg/Kg	Prepared: 03/21/11			
Basis:	as received	Analyzed: 03/21/11			
Diln Fac:	5.000				

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC584571

Analyte	MSS Result	Spiked	Result	%REC Limits
Diesel C10-C24	172.7	49.52	106.4	-134 * 39-146

Surrogate	%REC	Limits
o-Terphenyl	33 *	52-130

Type: MSD Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.00	131.6	-82 *	39-146	21	61

Surrogate	%REC	Limits
o-Terphenyl	34 *	52-130

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1



Total Extractable Hydrocarbons					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8015B			
Type:	LCS	Diln Fac: 1.000			
Lab ID:	QC584626	Batch#: 172986			
Matrix:	Soil	Prepared: 03/21/11			
Units:	mg/Kg	Analyzed: 03/22/11			

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.49	32.16	64	44-151

Surrogate	%REC	Limits
o-Terphenyl	59	52-130

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	Total Extrac	table Hydrocarbons
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 3550B
Project#:	241.082.02.001	Analysis: EPA 8015B
Field ID:	SB-20-12.5	Batch#: 172986
MSS Lab ID:	226712-003	Sampled: 03/17/11
Matrix:	Soil	Received: 03/17/11
Units:	mg/Kg	Prepared: 03/21/11
Basis:	as received	Analyzed: 03/22/11
Diln Fac:	1.000	

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC584627

Analyte	MSS Result	Spiked	Result	%REC Limits
Diesel C10-C24	125.9	49.65	72.42	-108 * 39-146

Surrogate	%REC	Limits
o-Terphenyl	93	52-130

Type: MSD Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD L	Lim
Diesel C10-C24	50.05	118.0	-16 *	39-146	48 6	51

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference



	Total Extract	able Hydrocarbons
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE
Project#:	241.082.02.001	Analysis: EPA 8015B
Type:	LCS	Diln Fac: 1.000
Lab ID:	QC584772	Batch#: 173022
Matrix:	Soil	Prepared: 03/22/11
Units:	mg/Kg	Analyzed: 03/23/11

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.93	25.44	51	44-151

Surrogate	%REC	Limits
o-Terphenyl	52	52-130

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	Total Extracta	ble Hydrocarbons
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE
Project#:	241.082.02.001	Analysis: EPA 8015B
Field ID:	SB-22-7.0	Batch#: 173022
MSS Lab ID:	226712-027	Sampled: 03/17/11
Matrix:	Soil	Received: 03/17/11
Units:	mg/Kg	Prepared: 03/22/11
Basis:	as received	Analyzed: 03/25/11
Diln Fac:	1.000	

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC584773

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	1.036	49.77	33.72	66	39-146

Surrogate	%REC	Limits
o-Terphenyl	79	52-130

Type: MSD Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.49	28.99	55	39-146	16	61



Total Extractable Hydrocarbons						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 3550B				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Type:	LCS	Diln Fac: 1.000				
Lab ID:	QC584844	Batch#: 173041				
Matrix:	Soil	Prepared: 03/22/11				
Units:	mg/Kg	Analyzed: 03/23/11				

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.39	53.54	106	44-151

Surrogate	%REC	Limits
o-Terphenyl	113	52-130

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Total Extractable Hydrocarbons						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 3550B				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Field ID:	ZZZZZZZZZ	Batch#: 173041				
MSS Lab ID:	226779-001	Sampled: 03/22/11				
Matrix:	Soil	Received: 03/22/11				
Units:	mg/Kg	Prepared: 03/22/11				
Basis:	as received	Analyzed: 03/23/11				
Diln Fac:	1.000					

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC584845

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	<0.2626	50.16	47.23	94	39-146

Surrogate	%REC	Limits
o-Terphenyl	97	52-130

Type: MSD Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.12	61.70	123	39-146	27	61

Surrogate	%REC	Limits
o-Terphenyl	130	52-130



Total Extractable Hydrocarbons						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE				
Project#:	241.082.02.001	Analysis: EPA 8015B				
Type:	LCS	Diln Fac: 1.000				
Lab ID:	QC585452	Batch#: 173186				
Matrix:	Soil	Prepared: 03/28/11				
Units:	mg/Kg	Analyzed: 03/29/11				

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.19	33.55	67	44-151

Surrogate	%REC	Limits
o-Terphenyl	77	52-130

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Total Extractable Hydrocarbons			
Lab #:	226712	Location: 64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: SHAKER TABLE	
Project#:	241.082.02.001	Analysis: EPA 8015B	
Field ID:	ZZZZZZZZZ	Batch#: 173186	
MSS Lab ID:	226844-010	Sampled: 03/22/11	
Matrix:	Soil	Received: 03/24/11	
Units:	mg/Kg	Prepared: 03/28/11	
Basis:	as received	Analyzed: 03/29/11	
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC585453

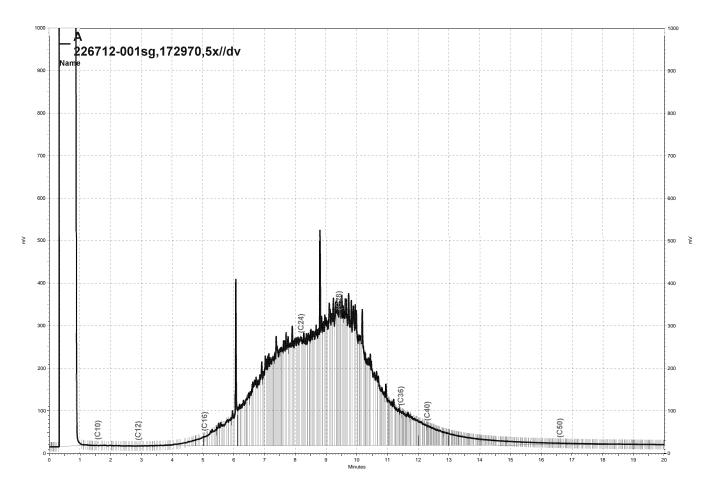
Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	47.44	50.38	90.91	86	39-146

Surrogate	%REC	Limits
o-Terphenyl	85	52-130

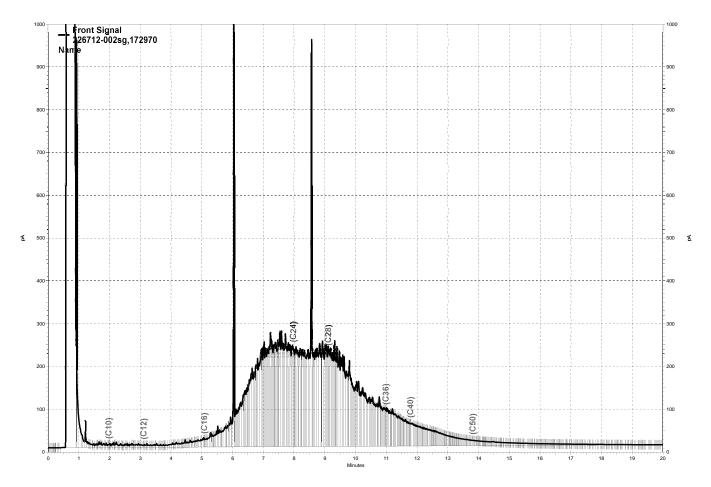
Type: MSD Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.90	74.84	55	39-146	19	61

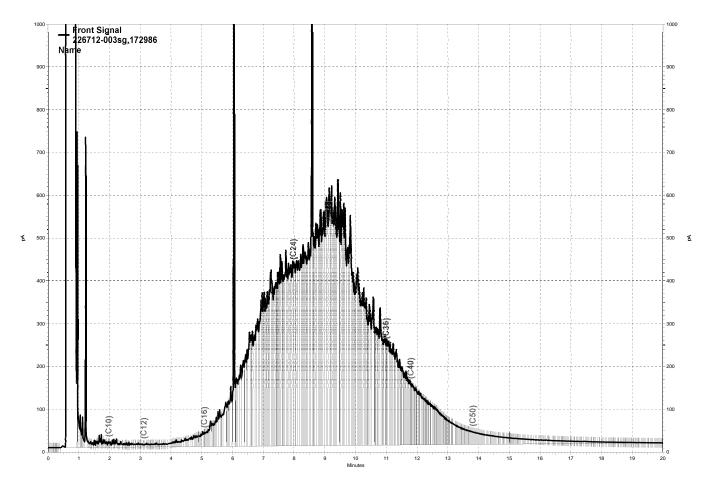
Surrogate	%REC	Limits	
o-Terphenyl	73	52-130	



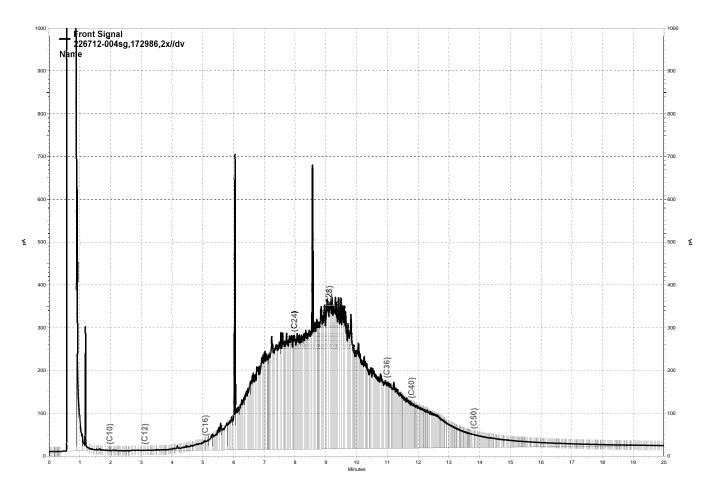
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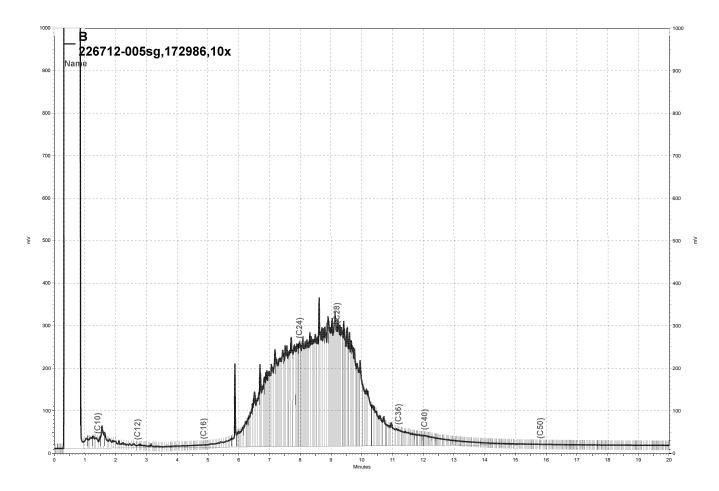
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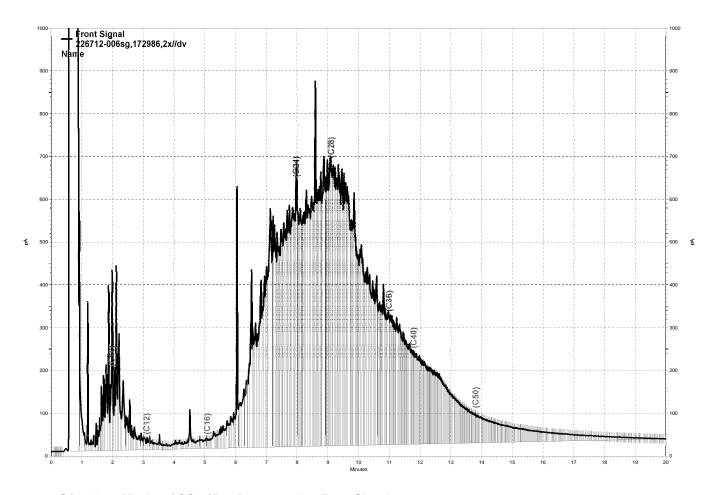
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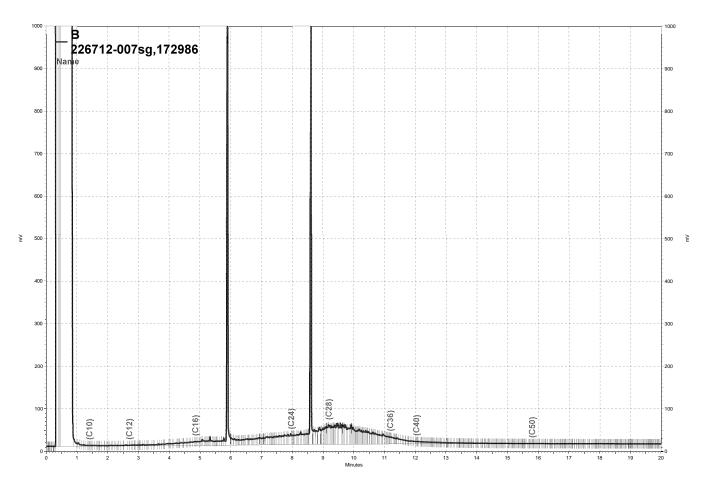
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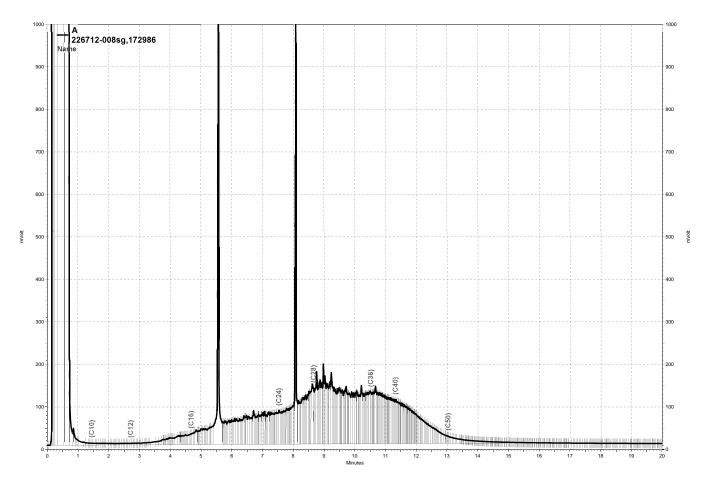
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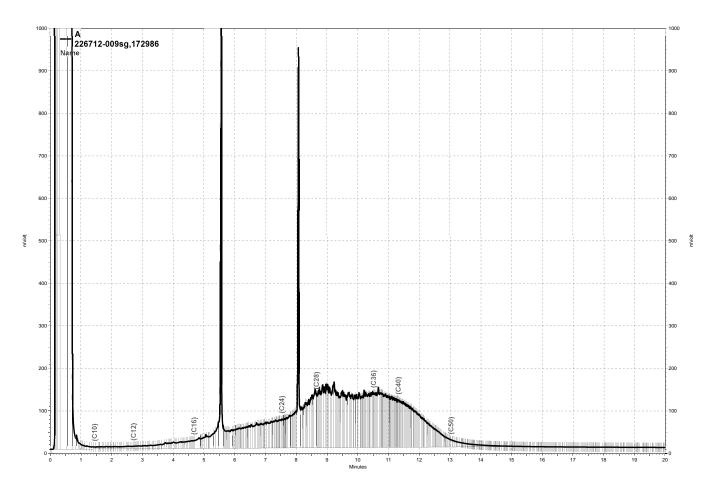
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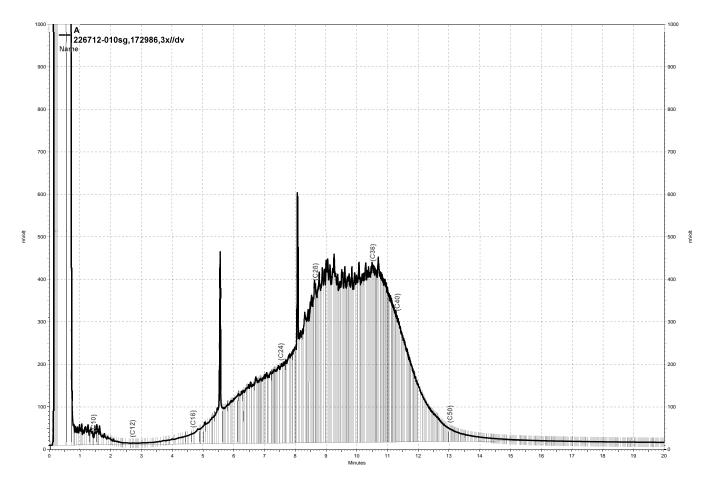
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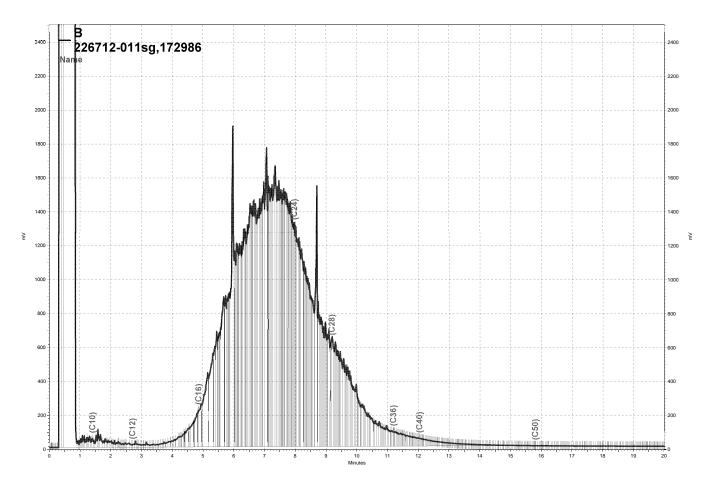
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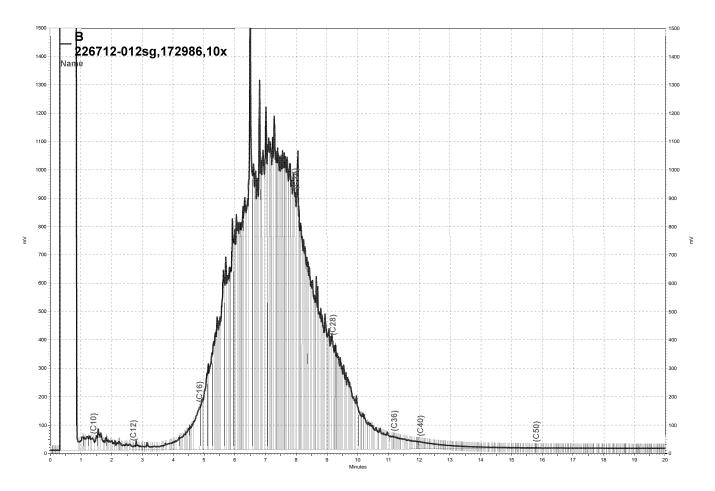
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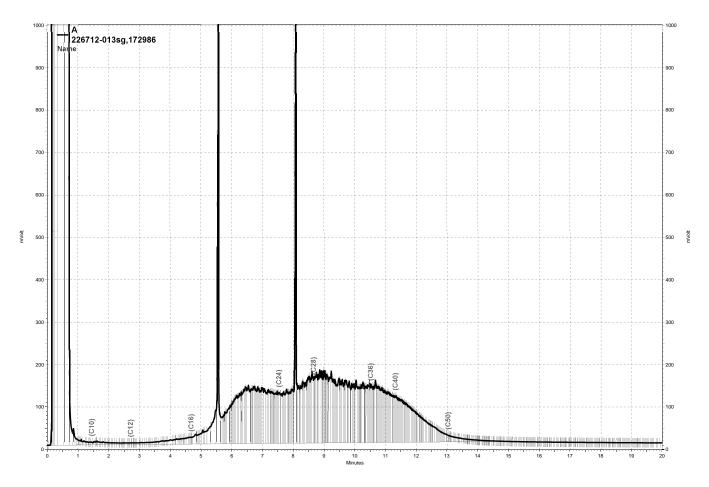
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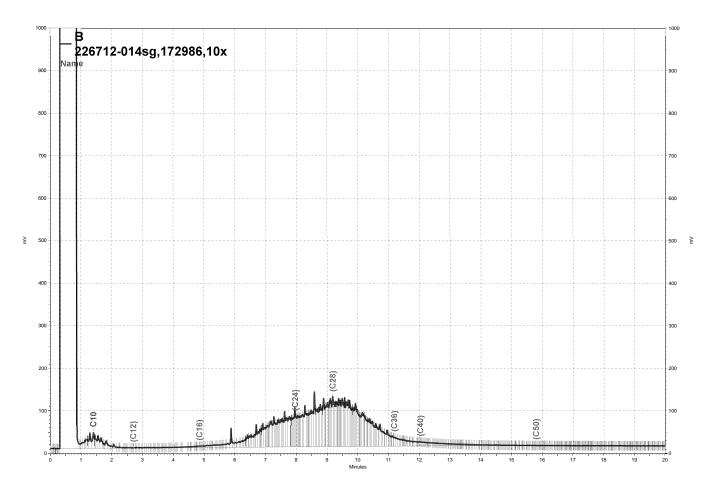
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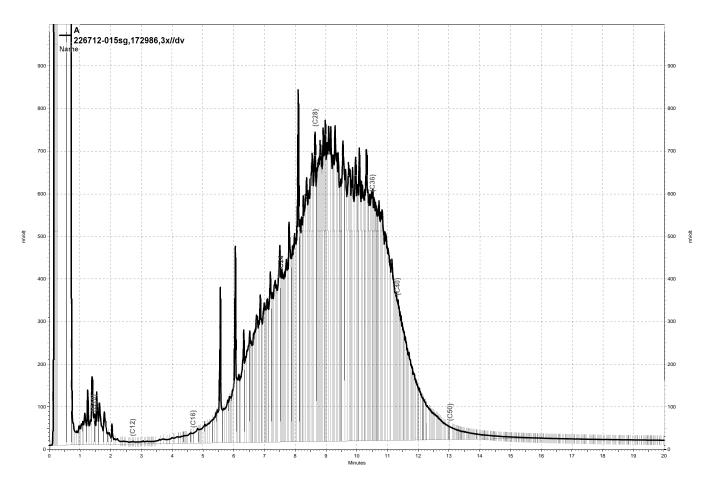
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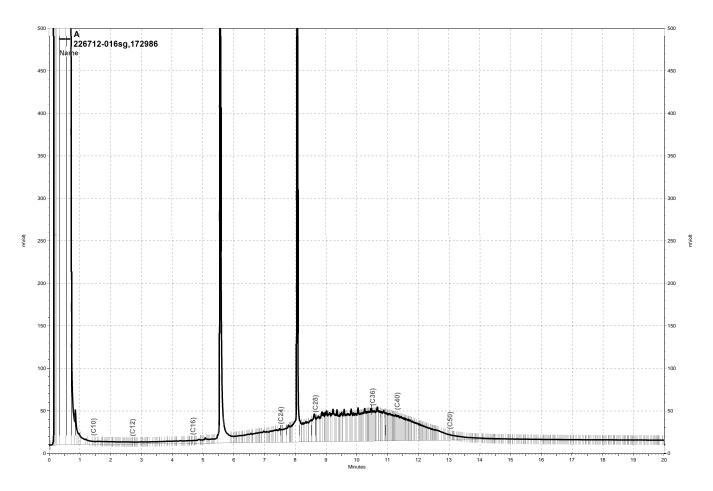
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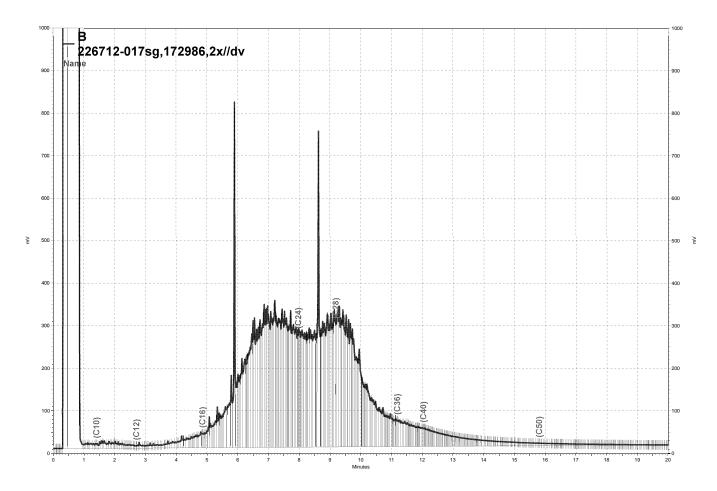
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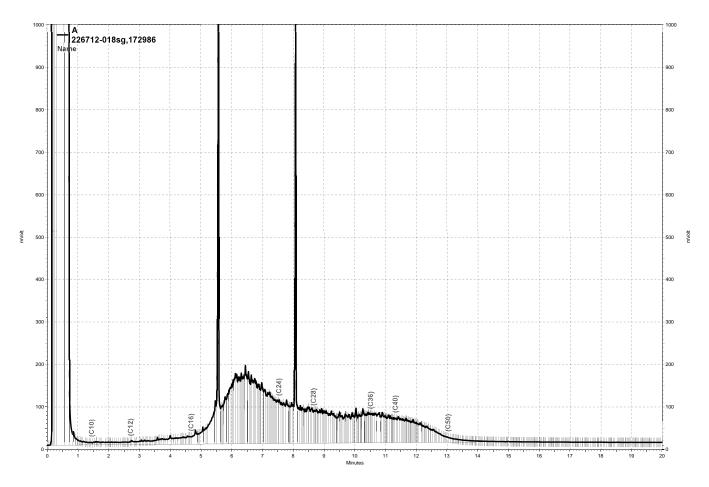
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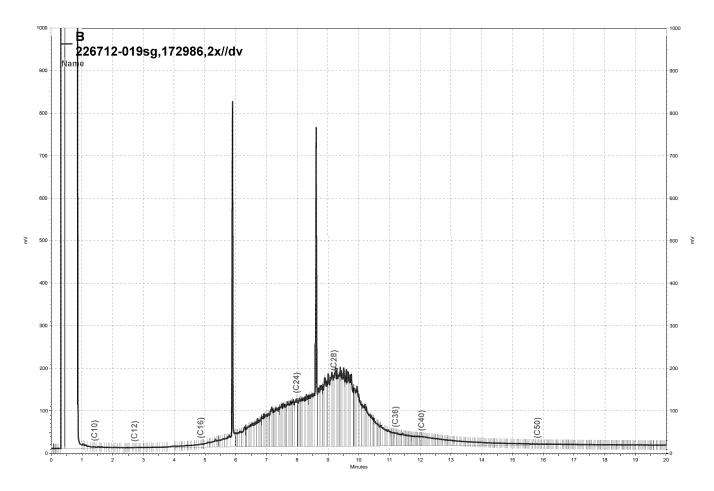
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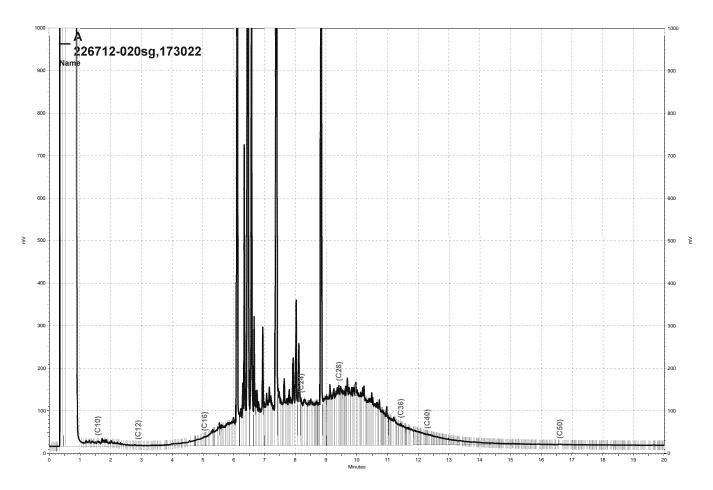
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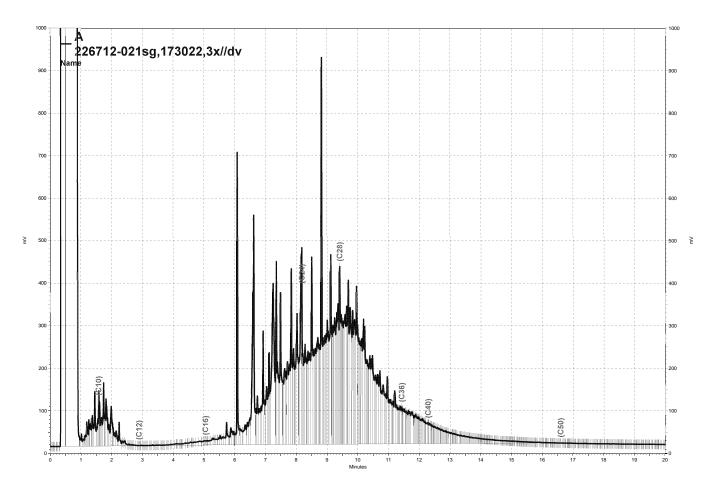
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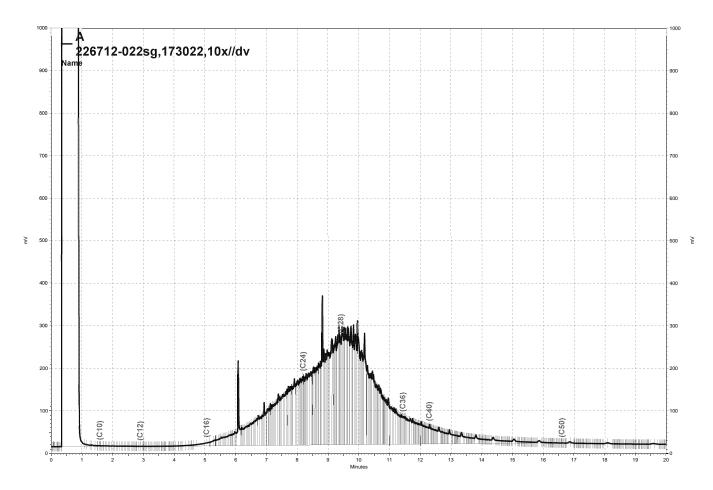
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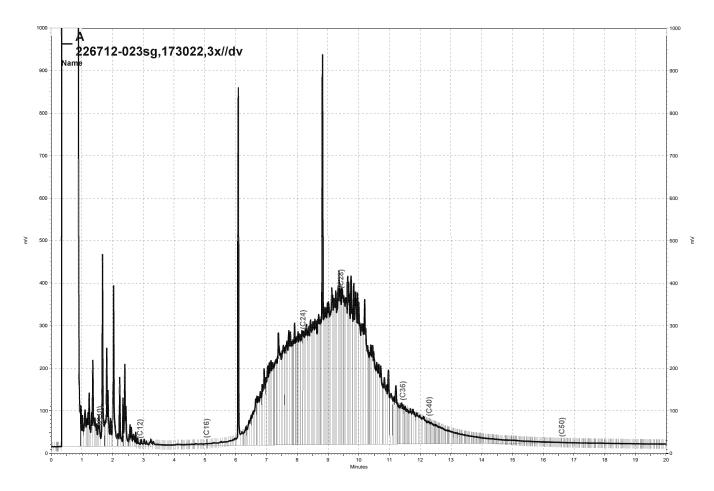
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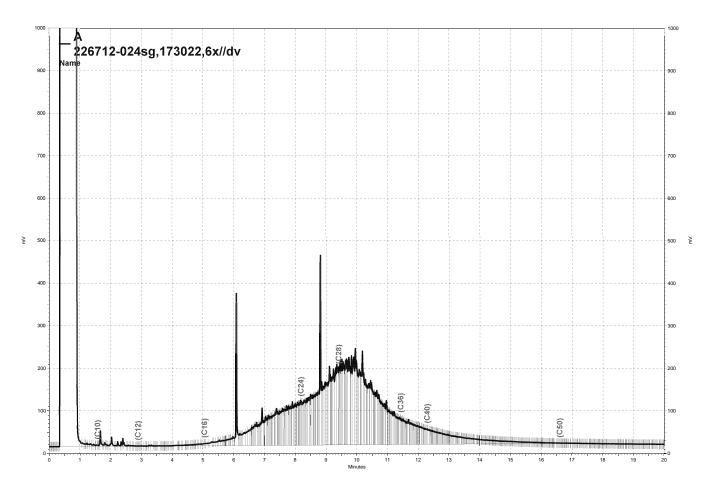
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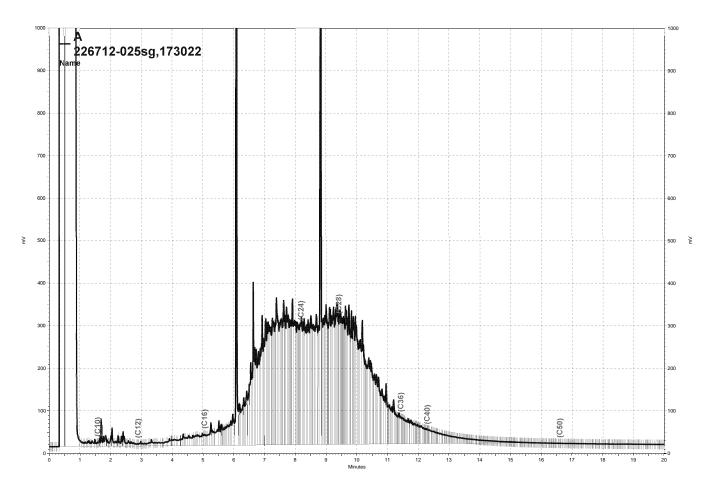
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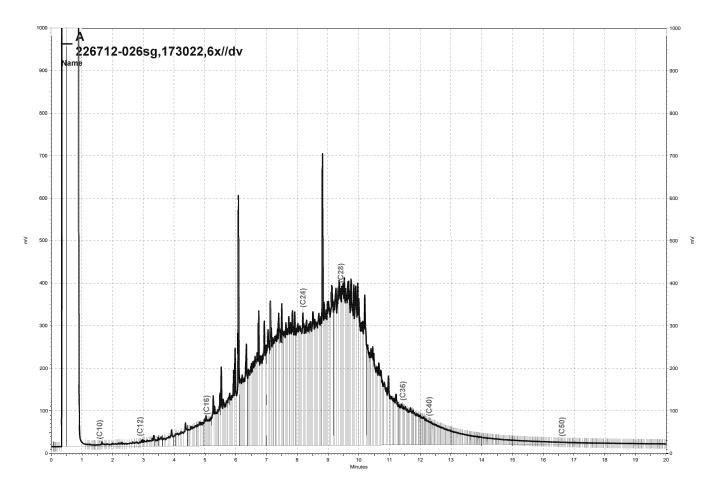
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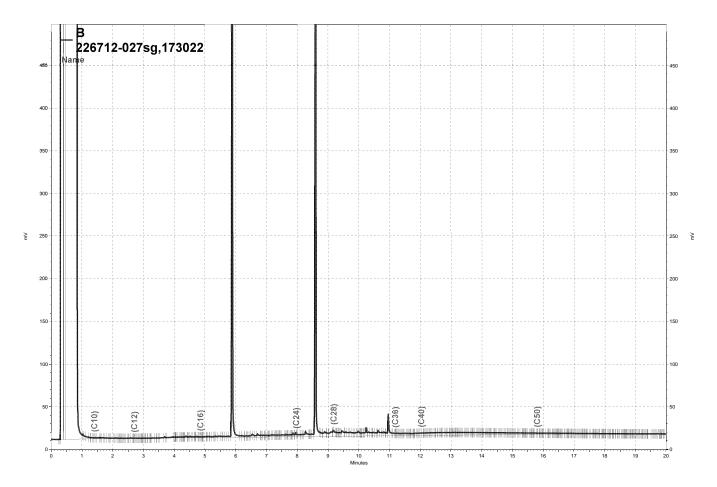
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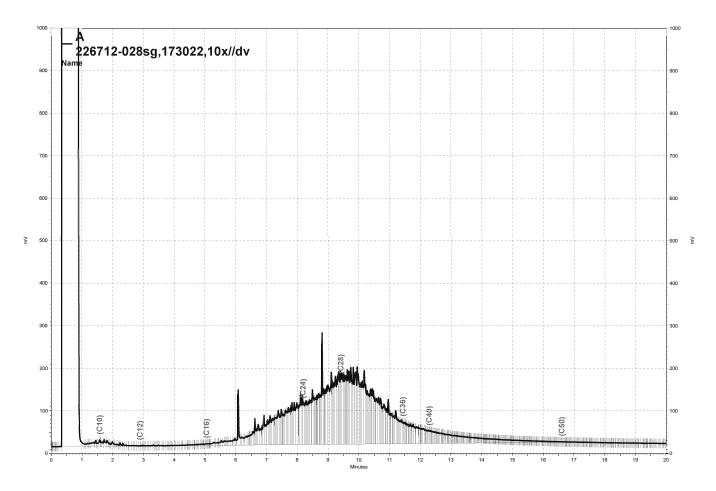
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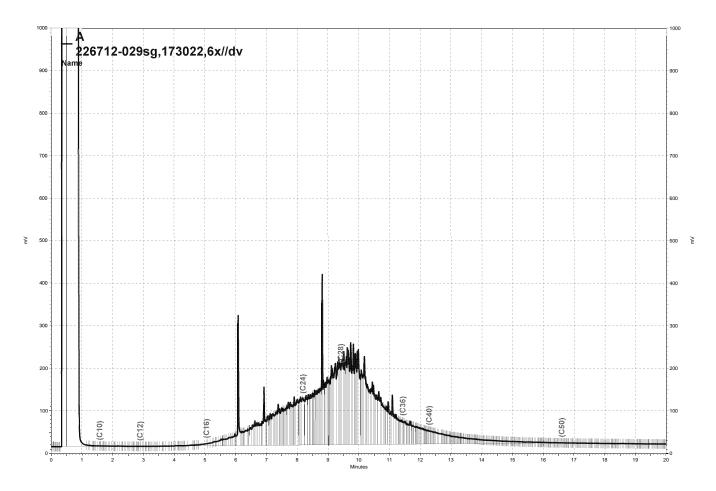
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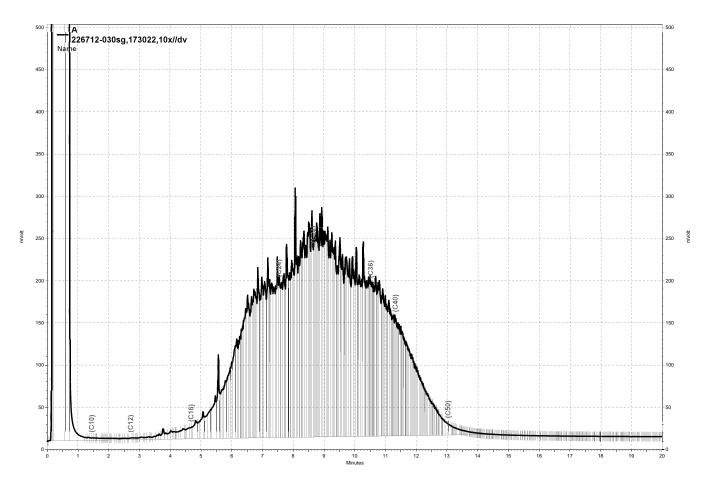
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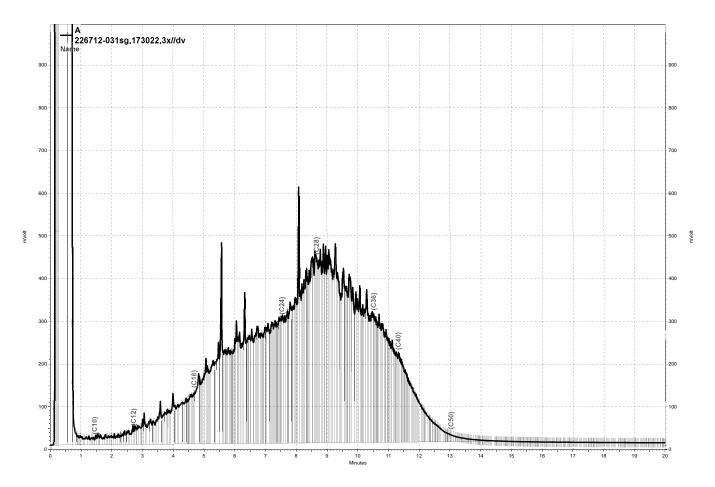
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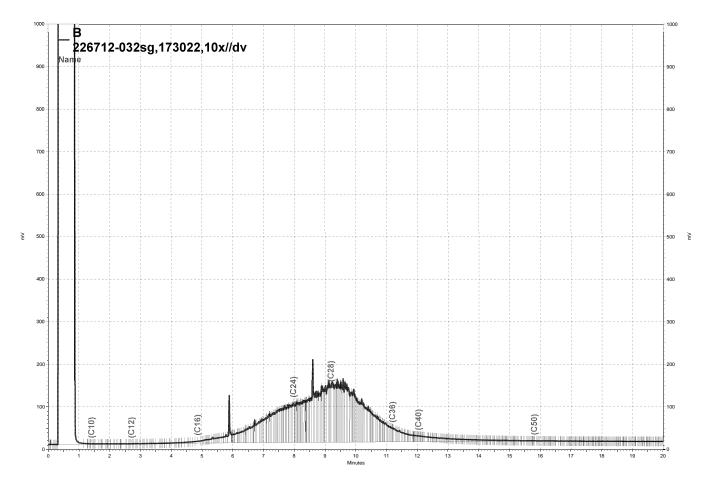
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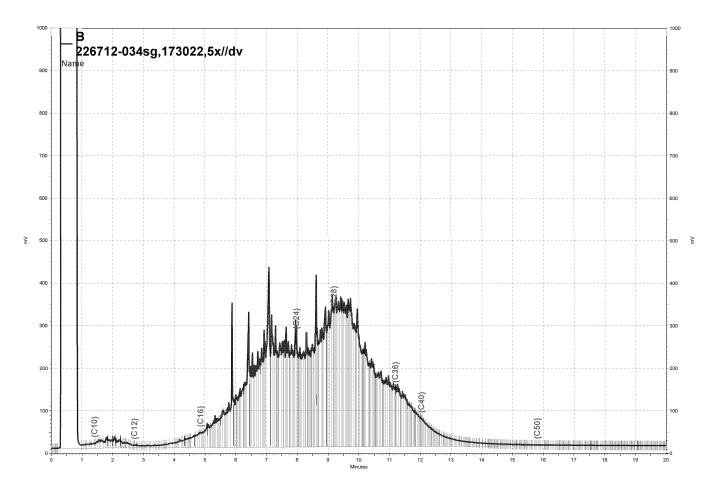
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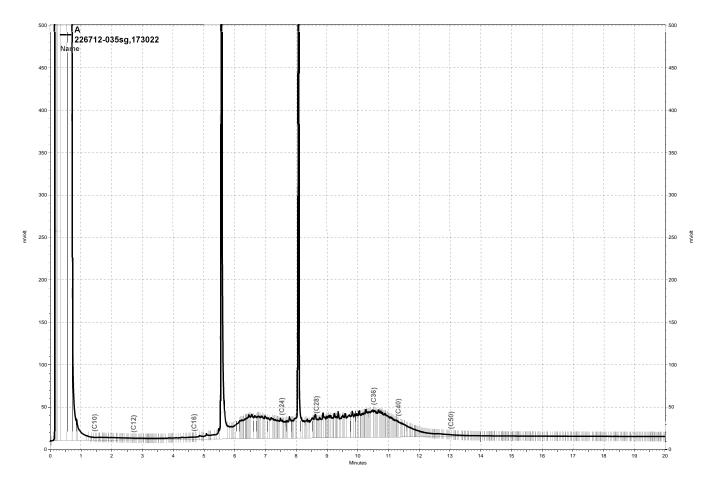
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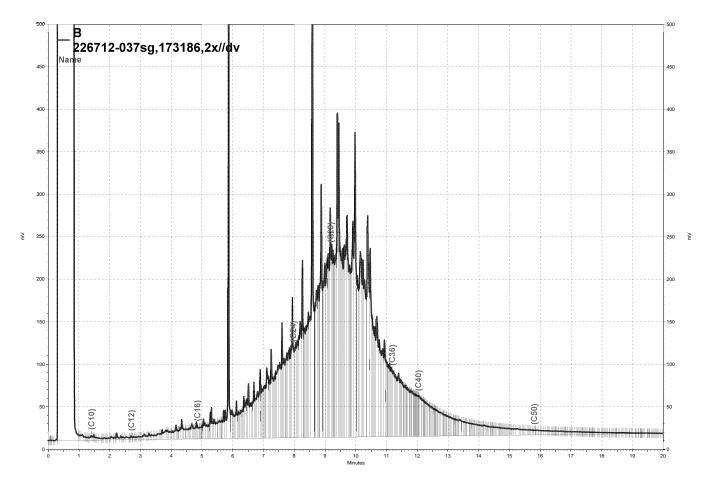
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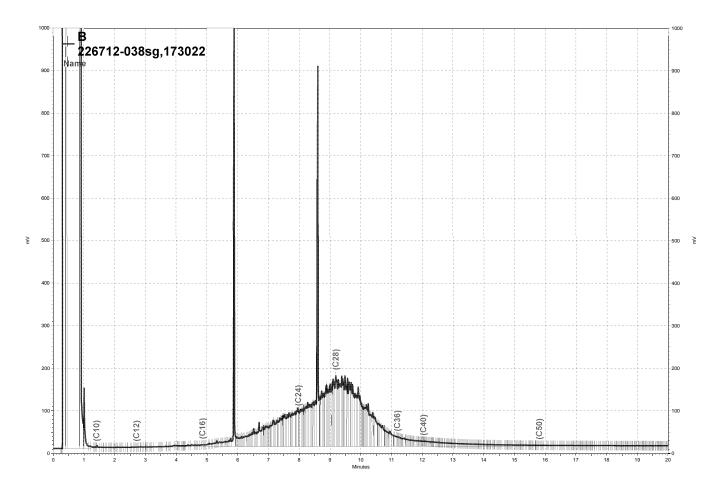
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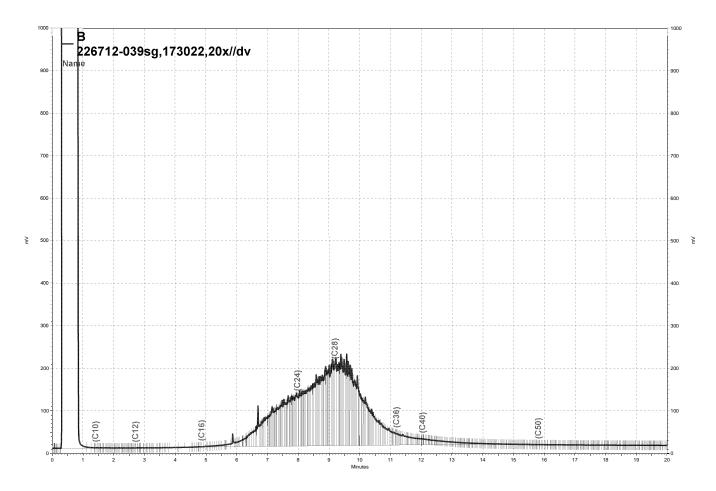
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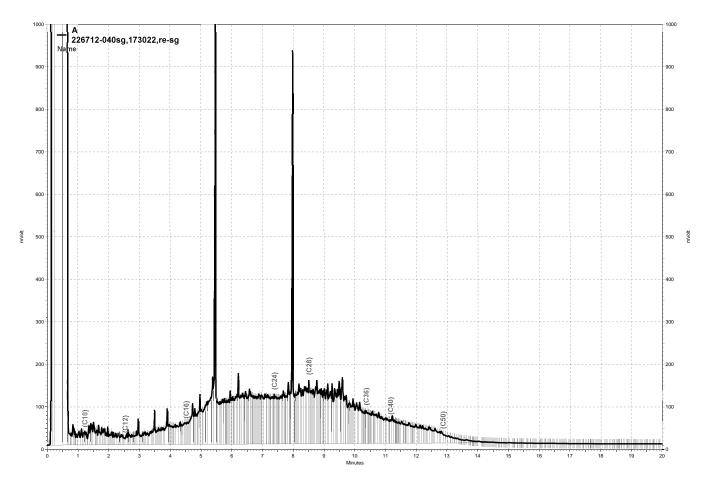
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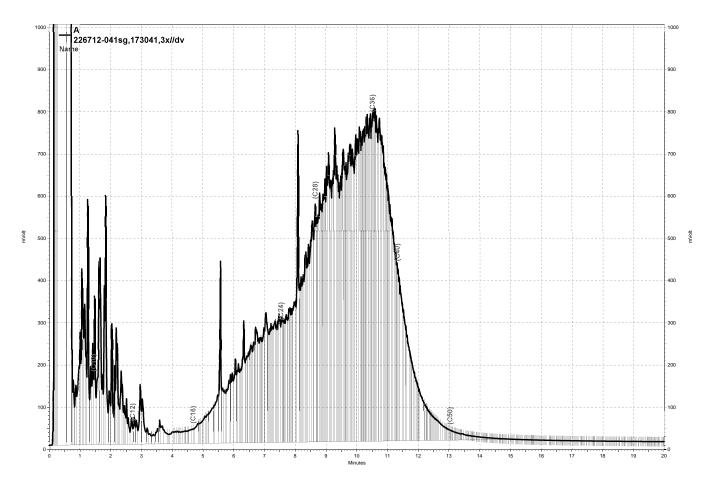
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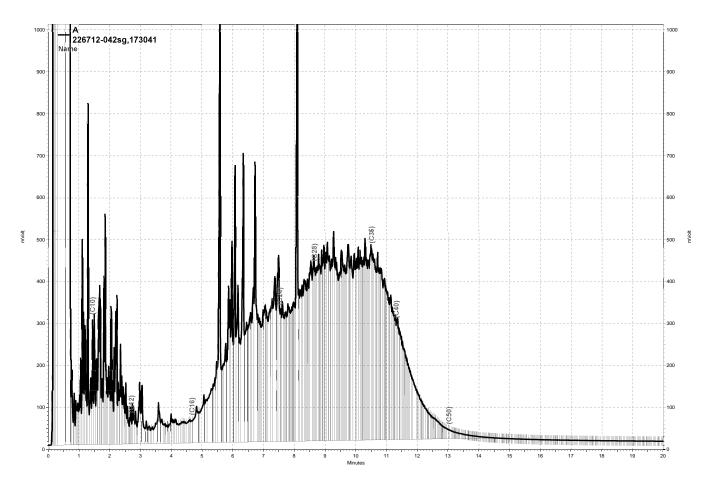
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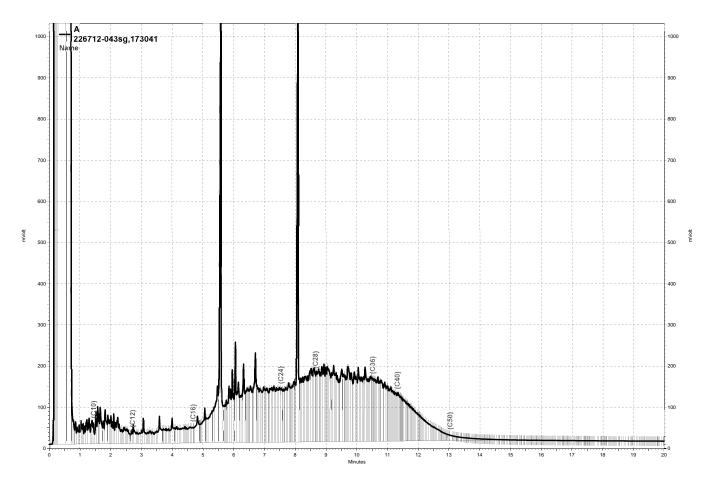
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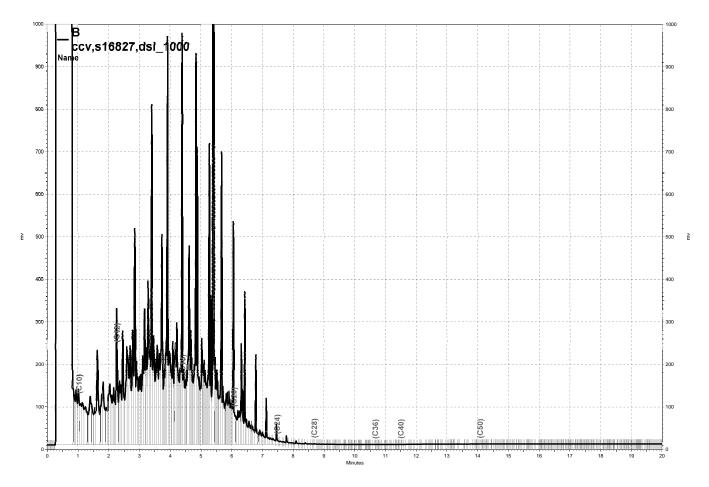
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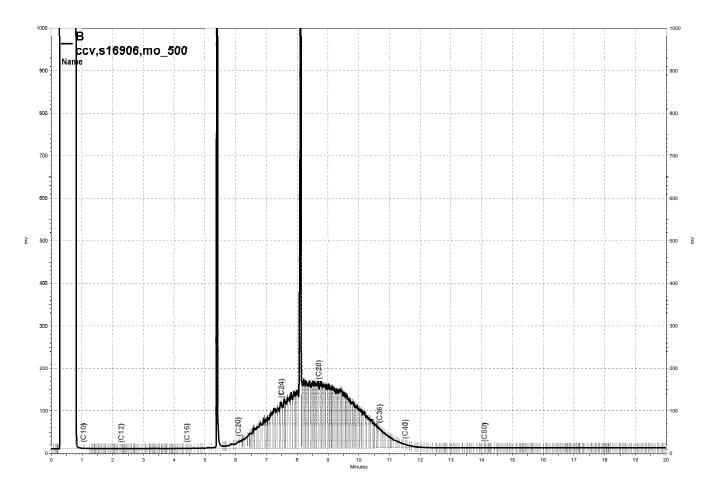
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	Purgeable Org	anics by GC/MS	
Lab #:	226712	Location: 64th &	Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 503	5
Project#:	241.082.02.001	Analysis: EPA 826	0B
Field ID:	SB-35-8.5	Diln Fac:	39.31
Lab ID:	226712-005	Batch#:	173059
Matrix:	Soil	Sampled:	03/17/11
Units:	ug/Kg	Received:	03/17/11
Basis:	as received	Analyzed:	03/23/11

Analyte	Result	RL	
Freon 12	ND	390	
Chloromethane	ND	390	
Vinyl Chloride	ND	390	
Bromomethane	ND	390	
Chloroethane	ND	390	
Trichlorofluoromethane	ND	200	
Acetone	ND	790	
Freon 113	ND	200	
1,1-Dichloroethene	ND	200	
Methylene Chloride	ND	790	
Carbon Disulfide	ND	200	
MTBE	ND	200	
trans-1,2-Dichloroethene	ND	200	
Vinyl Acetate	ND	2,000	
1,1-Dichloroethane	ND	200	
2-Butanone	ND	390	
cis-1,2-Dichloroethene	ND	200	
2,2-Dichloropropane	ND	200	
Chloroform	ND	200	
Bromochloromethane	ND	200	
1,1,1-Trichloroethane	ND	200	
1,1-Dichloropropene	ND	200	
Carbon Tetrachloride	ND	200	
1,2-Dichloroethane	ND	200	
Benzene	ND	200	
Trichloroethene	ND	200	
1,2-Dichloropropane	ND	200	
Bromodichloromethane	ND	200	
Dibromomethane	ND	200	
4-Methyl-2-Pentanone	ND	390	
cis-1,3-Dichloropropene	ND	200	
Toluene	ND	200	
trans-1,3-Dichloropropene	ND	200	
1,1,2-Trichloroethane	ND	200	
2-Hexanone	ND	390	
1,3-Dichloropropane	ND	200	
Tetrachloroethene	ND	200	

ND= Not Detected RL= Reporting Limit

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	Purgeable On	rganics by GC/	MS
Lab #:	226712	Location: 64tl	h & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-35-8.5	Diln Fac:	39.31
Lab ID:	226712-005	Batch#:	173059
Matrix:	Soil	Sampled:	03/17/11
Units:	ug/Kg	Received:	03/17/11
Basis:	as received	Analyzed:	03/23/11

Analyte	Result	RL	
Dibromochloromethane	ND	200	
1,2-Dibromoethane	ND	200	
Chlorobenzene	ND	200	
1,1,1,2-Tetrachloroethane	ND	200	
Ethylbenzene	ND	200	
m,p-Xylenes	ND	200	
o-Xylene	ND	200	
Styrene	ND	200	
Bromoform	ND	200	
Isopropylbenzene	ND	200	
1,1,2,2-Tetrachloroethane	ND	200	
1,2,3-Trichloropropane	ND	200	
Propylbenzene	ND	200	
Bromobenzene	ND	200	
1,3,5-Trimethylbenzene	ND	200	
2-Chlorotoluene	ND	200	
4-Chlorotoluene	ND	200	
tert-Butylbenzene	ND	200	
1,2,4-Trimethylbenzene	ND	200	
sec-Butylbenzene	ND	200	
para-Isopropyl Toluene	ND	200	
1,3-Dichlorobenzene	ND	200	
1,4-Dichlorobenzene	ND	200	
n-Butylbenzene	ND	200	
1,2-Dichlorobenzene	ND	200	
1,2-Dibromo-3-Chloropropane	ND	200	
1,2,4-Trichlorobenzene	ND	200	
Hexachlorobutadiene	ND	200	
Naphthalene	ND	200	
1,2,3-Trichlorobenzene	ND	200	

Surrogate	%REC	Limits	
Dibromofluoromethane	95	79-120	
1,2-Dichloroethane-d4	91	72-148	
Toluene-d8	88	80-120	
Bromofluorobenzene	97	78-130	

RL= Reporting Limit

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	Purgeable On	rganics by GC/M	ıs
Lab #:	226712	Location: 64th	& Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-11-12.5	Diln Fac:	1.010
Lab ID:	226712-009	Batch#:	172973
Matrix:	Soil	Sampled:	03/17/11
Units:	ug/Kg	Received:	03/17/11
Basis:	as received	Analyzed:	03/21/11

Analyte	Result	RL	
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.1	
Acetone	59	20	
Freon 113	ND	5.1	
1,1-Dichloroethene	ND	5.1	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.1	
MTBE	ND	5.1	
trans-1,2-Dichloroethene	ND	5.1	
Vinyl Acetate	ND	51	
1,1-Dichloroethane	ND	5.1	
2-Butanone	12	10	
cis-1,2-Dichloroethene	ND	5.1	
2,2-Dichloropropane	ND	5.1	
Chloroform	ND	5.1	
Bromochloromethane	ND	5.1	
1,1,1-Trichloroethane	ND	5.1	
1,1-Dichloropropene	ND	5.1	
Carbon Tetrachloride	ND	5.1	
1,2-Dichloroethane	ND	5.1	
Benzene	ND	5.1	
Trichloroethene	ND	5.1	
1,2-Dichloropropane	ND	5.1	
Bromodichloromethane	ND	5.1	
Dibromomethane	ND	5.1	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.1	
Toluene	ND	5.1	
trans-1,3-Dichloropropene	ND	5.1	
1,1,2-Trichloroethane	ND	5.1	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.1	
Tetrachloroethene	ND	5.1	

RL= Reporting Limit

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	Purgeable On	rganics by GC/M	ıs
Lab #:	226712	Location: 64th	& Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-11-12.5	Diln Fac:	1.010
Lab ID:	226712-009	Batch#:	172973
Matrix:	Soil	Sampled:	03/17/11
Units:	ug/Kg	Received:	03/17/11
Basis:	as received	Analyzed:	03/21/11

Analyte	Result	RL	
Dibromochloromethane	ND	5.1	
1,2-Dibromoethane	ND	5.1	
Chlorobenzene	ND	5.1	
1,1,1,2-Tetrachloroethane	ND	5.1	
Ethylbenzene	ND	5.1	
m,p-Xylenes	ND	5.1	
o-Xylene	ND	5.1	
Styrene	ND	5.1	
Bromoform	ND	5.1	
Isopropylbenzene	ND	5.1	
1,1,2,2-Tetrachloroethane	ND	5.1	
1,2,3-Trichloropropane	ND	5.1	
Propylbenzene	ND	5.1	
Bromobenzene	ND	5.1	
1,3,5-Trimethylbenzene	ND	5.1	
2-Chlorotoluene	ND	5.1	
4-Chlorotoluene	ND	5.1	
tert-Butylbenzene	ND	5.1	
1,2,4-Trimethylbenzene	ND	5.1	
sec-Butylbenzene	ND	5.1	
para-Isopropyl Toluene	ND	5.1	
1,3-Dichlorobenzene	ND	5.1	
1,4-Dichlorobenzene	ND	5.1	
n-Butylbenzene	ND	5.1	
1,2-Dichlorobenzene	ND	5.1	
1,2-Dibromo-3-Chloropropane	ND	5.1	
1,2,4-Trichlorobenzene	ND	5.1	
Hexachlorobutadiene	ND	5.1	
Naphthalene	ND	5.1	
1,2,3-Trichlorobenzene	ND	5.1	

Surrogate	%REC	Limits	
Dibromofluoromethane	92	79-120	
1,2-Dichloroethane-d4	87	72-148	
Toluene-d8	103	80-120	
Bromofluorobenzene	107	78-130	

RL= Reporting Limit

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Purgeable Aromatics by GC/MS Location: 64th & Christie Emeryville, CA Prep: EPA 5035 Lab #: 226712 PES Environmental, Inc. Client: Analysis: EPA 8260B Project#: 241.082.02.001 Sampled: 03/17/11 03/17/11 Matrix: Soil Received: Units: ug/Kg Basis: as received

Field ID: SB-26-1.5 Diln Fac: 0.7764
Type: SAMPLE Batch#: 173019
Lab ID: 226712-022 Analyzed: 03/22/11

Analyte	Result	RL	
Benzene	41	3.9	
Toluene	ND	3.9	
Ethylbenzene	5.3	3.9	
m,p-Xylenes	4.4	3.9	
o-Xylene	ND	3.9	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	90	72-148	
Toluene-d8	107	80-120	
Bromofluorobenzene	115	78-130	

Field ID: SB-26-6.5 Diln Fac: 0.8913
Type: SAMPLE Batch#: 172973
Lab ID: 226712-023 Analyzed: 03/21/11

Analyte	Result	RL	
Benzene	ND	4.5	
Toluene	ND	4.5	
Ethylbenzene	ND	4.5	
m,p-Xylenes	ND	4.5	
o-Xylene	ND	4.5	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	88	72-148
Toluene-d8	98	80-120
Bromofluorobenzene	93	78-130

Field ID: SB-26-12.5 Diln Fac: 0.9208 Type: SAMPLE Batch#: 172973 Lab ID: 226712-024 Analyzed: 03/21/11

Analyte	Result	RL	
Benzene	15	4.6	
Toluene	9.6	4.6	
Ethylbenzene	10	4.6	
m,p-Xylenes	31	4.6	
o-Xylene	ND	4.6	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	85	72-148	
Toluene-d8	106	80-120	
Bromofluorobenzene	118	78-130	

ND= Not Detected RL= Reporting Limit

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Purgeable Aromatics by GC/MS Lab #: 226712 Location: 64th & Christie Emeryville, CA Client: PES Environmental, Inc. EPA 5035 Prep: Analysis: EPA 8260B Sampled: 03 Project#: 241.082.02.001 03/17/11 Matrix: Soil Received: Units: ug/Kg 03/17/11 Basis: as received

 Field ID:
 SB-26-20.0
 Diln Fac:
 0.8183

 Type:
 SAMPLE
 Batch#:
 172973

 Lab ID:
 226712-025
 Analyzed:
 03/21/11

Analyte	Result	RL	
Benzene	ND	4.1	
Toluene	ND	4.1	
Ethylbenzene	ND	4.1	
m,p-Xylenes	ND	4.1	
o-Xylene	ND	4.1	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	83	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	94	78-130	

Field ID: SB-28-1.5 Diln Fac: 0.7837 Type: SAMPLE Batch#: 172973 Lab ID: 226712-032 Analyzed: 03/21/11

Analyte	Result	RL	
Benzene	ND	3.9	
Toluene	ND	3.9	
Ethylbenzene	ND	3.9	
	ND	3.9	
m,p-Xylenes o-Xylene	ND	3.9	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	86	72-148
Toluene-d8	97	80-120
Bromofluorobenzene	96	78-130

Field ID: SB-28-7.5 Diln Fac: 0.8606 Type: SAMPLE Batch#: 172973 Lab ID: 226712-033 Analyzed: 03/21/11

Analyte	Result	RL	
Benzene	ND	4.3	
Toluene	ND	4.3	
Ethylbenzene	ND	4.3	
m,p-Xylenes	ND	4.3	
o-Xylene	ND	4.3	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	88	72-148	
Toluene-d8	95	80-120	
Bromofluorobenzene	90	78-130	

ND= Not Detected RL= Reporting Limit

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Purgeable Aromatics by GC/MS Lab #: 226712 Location: 64th & Christie Emeryville, CA Client: PES Environmental, Inc. EPA 5035 Prep: Analysis: EPA 8260B Sampled: 03 Project#: 241.082.02.001 03/17/11 Matrix: Soil Received: Units: ug/Kg 03/17/11 Basis: as received

Field ID: SB-28-12.5 Diln Fac: 0.7657
Type: SAMPLE Batch#: 172973
Lab ID: 226712-034 Analyzed: 03/21/11

Analyte	Result	RL	
Benzene	ND	3.8	
Toluene	3.8	3.8	
Ethylbenzene	ND	3.8	
m,p-Xylenes	ND	3.8	
o-Xylene	ND	3.8	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	85	72-148
Toluene-d8	97	80-120
Bromofluorobenzene	111	78-130

Field ID: SB-28-16.0 Diln Fac: 0.7728
Type: SAMPLE Batch#: 172973
Lab ID: 226712-035 Analyzed: 03/21/11

Analyte	Result	RL	
Benzene	ND	3.9	
Toluene	ND	3.9	
Ethylbenzene	ND	3.9	
	ND	3.9	
m,p-Xylenes o-Xylene	ND	3.9	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	83	72-148	
Toluene-d8	93	80-120	
Bromofluorobenzene	93	78-130	

Field ID: SB-30-2.0 Diln Fac: 54.59 Type: SAMPLE Batch#: 173019 Lab ID: 226712-040 Analyzed: 03/22/11

Analyte	Result	RL	
Benzene	1,700	270	
Toluene	ND	270	
Ethylbenzene	6,200	270	
m,p-Xylenes	4,200	270	
o-Xylene	950	270	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	84	72-148	
Toluene-d8	97	80-120	
Bromofluorobenzene	95	78-130	

ND= Not Detected RL= Reporting Limit

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Purgeable Aromatics by GC/MS Lab #: 226712 Location: 64th & Christie Emeryville, CA Client: PES Environmental, Inc. EPA 5035 Prep: Analysis: EPA 8260B Sampled: 03 Project#: 241.082.02.001 03/17/11 Matrix: Soil Received: Units: ug/Kg 03/17/11 Basis: as received

 Field ID:
 SB-30-8.5
 Diln Fac:
 43.03

 Type:
 SAMPLE
 Batch#:
 173019

 Lab ID:
 226712-041
 Analyzed:
 03/22/11

Analyte	Result	RL	
Benzene	ND	220	
Toluene	ND	220	
Ethylbenzene	1,300	220	
m,p-Xylenes	3,900	220	
o-Xylene	ND	220	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	79	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	97	78-130	

Field ID: SB-30-12.5 Diln Fac: 0.8224 Type: SAMPLE Batch#: 173019 Lab ID: 226712-042 Analyzed: 03/22/11

Analyte	Analyte Result		
Benzene	ND	4.1	
Toluene	ND	4.1	
Ethylbenzene	39	4.1	
m,p-Xylenes	130	4.1	
m,p-Xylenes o-Xylene	15	4.1	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	90	72-148
Toluene-d8	92	80-120
Bromofluorobenzene	119	78-130

Field ID: SB-30-15.5 Diln Fac: 0.8606 Type: SAMPLE Batch#: 173019 Lab ID: 226712-043 Analyzed: 03/22/11

Analyte	Result	RL	
Benzene	ND	4.3	
Toluene	ND	4.3	
Ethylbenzene	ND	4.3	
m,p-Xylenes	ND	4.3	
o-Xylene	ND	4.3	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	83	72-148	
Toluene-d8	98	80-120	
Bromofluorobenzene	105	78-130	

ND= Not Detected RL= Reporting Limit

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Purgeable Aromatics by GC/MS Location: 64th & Christie Emeryville, CA Prep: EPA 5035 Lab #: 226712 Client: PES Environmental, Inc. 241.082.02.001 Soil Analysis: EPA 8260B Sampled: 03 Project#: Matrix: 03/17/11 ug/Kg Received: 03/17/11 Units: Basis: as received

Type: BLANK Batch#: 172973
Lab ID: QC584582 Analyzed: 03/21/11
Diln Fac: 1.000

Analyte	Result	RL
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	92	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	95	78-130	

Type: BLANK Batch#: 173019
Lab ID: QC584758 Analyzed: 03/22/11
Diln Fac: 1.000

Analyte	Result	RL	
Benzene	ND	5.0	
Toluene	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	

	Surrogate	%REC	Limits
1	,2-Dichloroethane-d4	90	72-148
To	oluene-d8	97	80-120
B	romofluorobenzene	89	78-130

ND= Not Detected RL= Reporting Limit Page 5 of 5



	Purgeable Org	anics by GC/MS	
Lab #:	226712	Location: 64th & Chri	stie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5035	
Project#:	241.082.02.001	Analysis: EPA 8260B	
Field ID:	SB-19-7.5	Diln Fac: 0.82	37
Lab ID:	226712-030	Batch#: 1729	73
Matrix:	Soil	Sampled: 03/1	7/11
Units:	ug/Kg	Received: 03/1	7/11
Basis:	as received	Analyzed: 03/2	1/11

Analyte	Result	RL	
Freon 12	ND	8.2	
Chloromethane	ND	8.2	
Vinyl Chloride	ND	8.2	
Bromomethane	ND	8.2	
Chloroethane	ND	8.2	
Trichlorofluoromethane	ND	4.1	
Acetone	39	16	
Freon 113	ND	4.1	
1,1-Dichloroethene	ND	4.1	
Methylene Chloride	ND	16	
Carbon Disulfide	ND	4.1	
MTBE	ND	4.1	
trans-1,2-Dichloroethene	ND	4.1	
Vinyl Acetate	ND	41	
1,1-Dichloroethane	ND	4.1	
2-Butanone	8.6	8.2	
cis-1,2-Dichloroethene	ND	4.1	
2,2-Dichloropropane	ND	4.1	
Chloroform	ND	4.1	
Bromochloromethane	ND	4.1	
1,1,1-Trichloroethane	ND	4.1	
1,1-Dichloropropene	ND	4.1	
Carbon Tetrachloride	ND	4.1	
1,2-Dichloroethane	ND	4.1	
Benzene	ND	4.1	
Trichloroethene	ND	4.1	
1,2-Dichloropropane	ND	4.1	
Bromodichloromethane	ND	4.1	
Dibromomethane	ND	4.1	
4-Methyl-2-Pentanone	ND	8.2	
cis-1,3-Dichloropropene	ND	4.1	
Toluene	ND	4.1	
trans-1,3-Dichloropropene	ND	4.1	
1,1,2-Trichloroethane	ND	4.1	
2-Hexanone	ND	8.2	
1,3-Dichloropropane	ND	4.1	
Tetrachloroethene	ND	4.1	

ND= Not Detected RL= Reporting Limit

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	Purgeable On	rganics by GC/N	MS
Lab #:	226712	Location: 64th	n & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-19-7.5	Diln Fac:	0.8237
Lab ID:	226712-030	Batch#:	172973
Matrix:	Soil	Sampled:	03/17/11
Units:	ug/Kg	Received:	03/17/11
Basis:	as received	Analyzed:	03/21/11

Analyte	Result	RL	
Dibromochloromethane	ND	4.1	
1,2-Dibromoethane	ND	4.1	
Chlorobenzene	ND	4.1	
1,1,1,2-Tetrachloroethane	ND	4.1	
Ethylbenzene	ND	4.1	
m,p-Xylenes	ND	4.1	
o-Xylene	ND	4.1	
Styrene	ND	4.1	
Bromoform	ND	4.1	
Isopropylbenzene	ND	4.1	
1,1,2,2-Tetrachloroethane	ND	4.1	
1,2,3-Trichloropropane	ND	4.1	
Propylbenzene	ND	4.1	
Bromobenzene	ND	4.1	
1,3,5-Trimethylbenzene	ND	4.1	
2-Chlorotoluene	ND	4.1	
4-Chlorotoluene	ND	4.1	
tert-Butylbenzene	ND	4.1	
1,2,4-Trimethylbenzene	ND	4.1	
sec-Butylbenzene	ND	4.1	
para-Isopropyl Toluene	ND	4.1	
1,3-Dichlorobenzene	ND	4.1	
1,4-Dichlorobenzene	ND	4.1	
n-Butylbenzene	ND	4.1	
1,2-Dichlorobenzene	ND	4.1	
1,2-Dibromo-3-Chloropropane	ND	4.1	
1,2,4-Trichlorobenzene	ND	4.1	
Hexachlorobutadiene	ND	4.1	
Naphthalene	ND	4.1	
1,2,3-Trichlorobenzene	ND	4.1	

Surrogate	%REC	Limits	
Dibromofluoromethane	92	79-120	
1,2-Dichloroethane-d4	83	72-148	
Toluene-d8	100	80-120	
Bromofluorobenzene	97	78-130	

RL= Reporting Limit

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	Purgeable On	rganics by GC/	MS
Lab #:	226712	Location: 64th	n & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-30-8.5	Diln Fac:	43.03
Lab ID:	226712-041	Batch#:	173019
Matrix:	Soil	Sampled:	03/17/11
Units:	ug/Kg	Received:	03/17/11
Basis:	as received	Analyzed:	03/22/11

Analyte	Result	RL	
Freon 12	ND	430	
Chloromethane	ND	430	
Vinyl Chloride	ND	430	
Bromomethane	ND	430	
Chloroethane	ND	430	
Trichlorofluoromethane	ND	220	
Acetone	ND	860	
Freon 113	ND	220	
1,1-Dichloroethene	ND	220	
Methylene Chloride	ND	860	
Carbon Disulfide	ND	220	
MTBE	ND	220	
trans-1,2-Dichloroethene	ND	220	
Vinyl Acetate	ND	2,200	
1,1-Dichloroethane	ND	220	
2-Butanone	ND	430	
cis-1,2-Dichloroethene	ND	220	
2,2-Dichloropropane	ND	220	
Chloroform	ND	220	
Bromochloromethane	ND	220	
1,1,1-Trichloroethane	ND	220	
1,1-Dichloropropene	ND	220	
Carbon Tetrachloride	ND	220	
1,2-Dichloroethane	ND	220	
Benzene	ND	220	
Trichloroethene	ND	220	
1,2-Dichloropropane	ND	220	
Bromodichloromethane	ND	220	
Dibromomethane	ND	220	
4-Methyl-2-Pentanone	ND	430	
cis-1,3-Dichloropropene	ND	220	
Toluene	ND	220	
trans-1,3-Dichloropropene	ND	220	
1,1,2-Trichloroethane	ND	220	
2-Hexanone	ND	430	
1,3-Dichloropropane	ND	220	
Tetrachloroethene	ND	220	

ND= Not Detected RL= Reporting Limit

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	Purgeable On	rganics by GC/	MS
Lab #:	226712	Location: 64t	h & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA	5035
Project#:	241.082.02.001	Analysis: EPA	8260B
Field ID:	SB-30-8.5	Diln Fac:	43.03
Lab ID:	226712-041	Batch#:	173019
Matrix:	Soil	Sampled:	03/17/11
Units:	ug/Kg	Received:	03/17/11
Basis:	as received	Analyzed:	03/22/11

Analyte	Result	RL
Dibromochloromethane	ND	220
1,2-Dibromoethane	ND	220
Chlorobenzene	ND	220
1,1,1,2-Tetrachloroethane	ND	220
Ethylbenzene	1,300	220
m,p-Xylenes	3,900	220
o-Xylene	ND	220
Styrene	ND	220
Bromoform	ND	220
Isopropylbenzene	1,000	220
1,1,2,2-Tetrachloroethane	ND	220
1,2,3-Trichloropropane	ND	220
Propylbenzene	1,500	220
Bromobenzene	ND	220
1,3,5-Trimethylbenzene	1,800	220
2-Chlorotoluene	ND	220
4-Chlorotoluene	ND	220
tert-Butylbenzene	720	220
1,2,4-Trimethylbenzene	5,000	220
sec-Butylbenzene	1,800	220
para-Isopropyl Toluene	ND	220
1,3-Dichlorobenzene	ND	220
1,4-Dichlorobenzene	ND	220
n-Butylbenzene	5,000	220
1,2-Dichlorobenzene	ND	220
1,2-Dibromo-3-Chloropropane	ND	220
1,2,4-Trichlorobenzene	ND	220
Hexachlorobutadiene	ND	220
Naphthalene	880	220
1,2,3-Trichlorobenzene	ND	220

Surrogate	%REC	Limits	
Dibromofluoromethane	87	79-120	
1,2-Dichloroethane-d4	79	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	97	78-130	

RL= Reporting Limit

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Purgeable Organics by GC/MS						
Lab #:	226712	Location:	64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep:	EPA 5035			
Project#:	241.082.02.001	Analysis:	EPA 8260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC584582	Batch#:	172973			
Matrix:	Soil	Analyzed:	03/21/11			
Units:	ug/Kg					

Analyte	Result	RL	
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.0	
Acetone	ND	20	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS						
Lab #:	226712	Location: 64t	th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA	A 5035			
Project#:	241.082.02.001	Analysis: EPA	A 8260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC584582	Batch#:	172973			
Matrix:	Soil	Analyzed:	03/21/11			
Units:	ug/Kg					

Analyte	Result	RL	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Styrene	ND	5.0	
Bromoform	ND	5.0	
Isopropylbenzene	ND	5.0	
1,1,2,2-Tetrachloroethane	ND	5.0	
1,2,3-Trichloropropane	ND	5.0	
Propylbenzene	ND	5.0	
Bromobenzene	ND	5.0	
1,3,5-Trimethylbenzene	ND	5.0	
2-Chlorotoluene	ND	5.0	
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	95	79-120	
1,2-Dichloroethane-d4	92	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	95	78-130	

ND= Not Detected

RL= Reporting Limit

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Purgeable Aromatics by GC/MS						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5035				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Matrix:	Soil	Batch#: 172973				
Units:	ug/Kg	Analyzed: 03/21/11				
Diln Fac:	1.000					

Type: BS Lab ID: QC584583

Analyte	Spiked	Result	%REC	Limits
Benzene	21.25	21.41	101	80-128
Toluene	21.25	20.47	96	80-130
Ethylbenzene	21.25	20.19	95	80-133
m,p-Xylenes	42.50	40.78	96	80-134
o-Xylene	21.25	19.83	93	79-130

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	88	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	94	78-130	

Type: BSD Lab ID: QC584584

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	21.25	20.70	97	80-128	3	20
Toluene	21.25	19.71	93	80-130	4	20
Ethylbenzene	21.25	19.88	94	80-133	2	20
m,p-Xylenes	42.50	38.57	91	80-134	6	20
o-Xylene	21.25	20.06	94	79-130	1	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	89	72-148
Toluene-d8	97	80-120
Bromofluorobenzene	94	78-130



Purgeable Organics by GC/MS						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5035				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Matrix:	Soil	Batch#: 172973				
Units:	ug/Kg	Analyzed: 03/21/11				
Diln Fac:	1.000					

Type: BS Lab ID: QC584583

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	21.25	18.68	88	68-134
Benzene	21.25	21.41	101	80-128
Trichloroethene	21.25	20.91	98	75-130
Toluene	21.25	20.47	96	80-130
Chlorobenzene	21.25	20.17	95	80-126

Surrogate	%REC	Limits	
Dibromofluoromethane	94	79-120	
1,2-Dichloroethane-d4	88	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	94	78-130	

Type: BSD Lab ID: QC584584

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	21.25	19.50	92	68-134	4	27
Benzene	21.25	20.70	97	80-128	3	20
Trichloroethene	21.25	20.52	97	75-130	2	20
Toluene	21.25	19.71	93	80-130	4	20
Chlorobenzene	21.25	19.37	91	80-126	4	20

Surrogate	%REC	Limits	
Dibromofluoromethane	98	79-120	
1,2-Dichloroethane-d4	89	72-148	
Toluene-d8	97	80-120	
Bromofluorobenzene	94	78-130	



Purgeable Organics by GC/MS						
Lab #:	226712	Location:	64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep:	EPA 5035			
Project#:	241.082.02.001	Analysis:	EPA 8260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC584758	Batch#:	173019			
Matrix:	Soil	Analyzed:	03/22/11			
Units:	ug/Kg					

Analyte	Result	RL	
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.0	
Acetone	ND	20	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	

ND= Not Detected

RL= Reporting Limit



Purgeable Organics by GC/MS						
Lab #:	226712	Location: 64th	& Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5	5035			
Project#:	241.082.02.001	Analysis: EPA 8	3260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC584758	Batch#:	173019			
Matrix:	Soil	Analyzed:	03/22/11			
Units:	ug/Kg					

Analyte	Result	RL	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Styrene	ND	5.0	
Bromoform	ND	5.0	
Isopropylbenzene	ND	5.0	
1,1,2,2-Tetrachloroethane	ND	5.0	
1,2,3-Trichloropropane	ND	5.0	
Propylbenzene	ND	5.0	
Bromobenzene	ND	5.0	
1,3,5-Trimethylbenzene	ND	5.0	
2-Chlorotoluene	ND	5.0	
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	96	79-120	
1,2-Dichloroethane-d4	90	72-148	
Toluene-d8	97	80-120	
Bromofluorobenzene	89	78-130	

ND= Not Detected

RL= Reporting Limit

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Purgeable Aromatics by GC/MS						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5035				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Matrix:	Soil	Batch#: 173019				
Units:	ug/Kg	Analyzed: 03/22/11				
Diln Fac:	1.000					

Type: BS Lab ID: QC584759

Analyte	Spiked	Result	%REC	Limits
Benzene	22.50	23.49	104	80-128
Toluene	22.50	21.75	97	80-130
Ethylbenzene	22.50	21.51	96	80-133
m,p-Xylenes	45.00	42.69	95	80-134
o-Xylene	22.50	20.99	93	79-130

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	93	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	89	78-130	

Type: BSD Lab ID: QC584760

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	22.50	21.85	97	80-128	7	20
Toluene	22.50	21.18	94	80-130	3	20
Ethylbenzene	22.50	21.47	95	80-133	0	20
m,p-Xylenes	45.00	41.63	93	80-134	3	20
o-Xylene	22.50	21.06	94	79-130	0	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	93	72-148
Toluene-d8	92	80-120
Bromofluorobenzene	91	78-130



Purgeable Organics by GC/MS						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5035				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Matrix:	Soil	Batch#: 173019				
Units:	ug/Kg	Analyzed: 03/22/11				
Diln Fac:	1.000					

Lab ID: QC584759 Type: BS

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	22.50	21.90	97	68-134
Benzene	22.50	23.49	104	80-128
Trichloroethene	22.50	22.31	99	75-130
Toluene	22.50	21.75	97	80-130
Chlorobenzene	22.50	20.88	93	80-126

Surrogate	%REC	Limits	
Dibromofluoromethane	99	79-120	
1,2-Dichloroethane-d4	93	72-148	
Toluene-d8	96	80-120	
Bromofluorobenzene	89	78-130	

Type: BSD Lab ID: QC584760

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	22.50	21.30	95	68-134	3	27
Benzene	22.50	21.85	97	80-128	7	20
Trichloroethene	22.50	21.77	97	75-130	2	20
Toluene	22.50	21.18	94	80-130	3	20
Chlorobenzene	22.50	20.72	92	80-126	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	79-120
1,2-Dichloroethane-d4	93	72-148
Toluene-d8	92	80-120
Bromofluorobenzene	91	78-130



Purgeable Aromatics by GC/MS						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Field ID:	ZZZZZZZZZ	Batch#: 173019				
MSS Lab ID:	226756-001	Sampled: 03/21/11				
Matrix:	Soil	Received: 03/21/11				
Units:	ug/Kg	Analyzed: 03/22/11				
Basis:	as received					

Type: MS Diln Fac: 0.9921

Lab ID: QC584783

Analyte	MSS Result	Spiked	Result	%REC	Limits
Benzene	<0.9497	49.60	42.17	85	69-125
Toluene	<1.282	49.60	38.60	78	62-128
Ethylbenzene	<1.179	49.60	38.25	77	57-136
m,p-Xylenes	<0.6046	99.21	75.11	76	57-136
o-Xylene	<1.104	49.60	37.62	76	56-134

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	95	72-148
Toluene-d8	96	80-120
Bromofluorobenzene	94	78-130

Type: MSD Diln Fac: 0.9881

Lab ID: QC584784

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	49.41	45.70	92	69-125	8	36
Toluene	49.41	42.29	86	62-128	10	41
Ethylbenzene	49.41	42.38	86	57-136	11	43
m,p-Xylenes	98.81	79.72	81	57-136	6	46
o-Xylene	49.41	42.12	85	56-134	12	40

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	94	72-148	
Toluene-d8	95	80-120	
Bromofluorobenzene	89	78-130	



Purgeable Organics by GC/MS						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 5030B				
Project#:	241.082.02.001	Analysis: EPA 8260B				
Field ID:	ZZZZZZZZZZ	Batch#: 173019				
MSS Lab ID:	226756-001	Sampled: 03/21/11				
Matrix:	Soil	Received: 03/21/11				
Units:	ug/Kg	Analyzed: 03/22/11				
Basis:	as received					

Type: MS Diln Fac: 0.9921

Lab ID: QC584783

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5829	49.60	67.58	136	65-139
Benzene	<0.9497	49.60	42.17	85	69-125
Trichloroethene	<1.108	49.60	79.28	160 *	60-145
Toluene	<1.282	49.60	38.60	78	62-128
Chlorobenzene	<0.2862	49.60	38.08	77	56-127

Surrogate	%REC	Limits
Dibromofluoromethane	8 *	79-120
1,2-Dichloroethane-d4	95	72-148
Toluene-d8	96	80-120
Bromofluorobenzene	94	78-130

Type: MSD Diln Fac: 0.9881

Lab ID: QC584784

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.41	73.81	149 *	65-139	9	38
Benzene	49.41	45.70	92	69-125	8	36
Trichloroethene	49.41	89.95	182 *	60-145	13	41
Toluene	49.41	42.29	86	62-128	10	41
Chlorobenzene	49.41	41.54	84	56-127	9	42

Surrogate	%REC	Limits
Dibromofluoromethane 1	1 *	79-120
1,2-Dichloroethane-d4 9	4	72-148
Toluene-d8 9	5	80-120
Bromofluorobenzene 8	39	78-130

^{*=} Value outside of QC limits; see narrative

RPD= Relative Percent Difference

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	Purgeable Organics by GC/MS					
Lab #:	226712	Location: 64th	& Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA	5035			
Project#:	241.082.02.001	Analysis: EPA	8260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC584931	Batch#:	173059			
Matrix:	Soil	Analyzed:	03/23/11			
Units:	ug/Kg					

Analyte	Result	RL	
Freon 12	ND	10	
Chloromethane	ND	10	
Vinyl Chloride	ND	10	
Bromomethane	ND	10	
Chloroethane	ND	10	
Trichlorofluoromethane	ND	5.0	
Acetone	ND	20	
Freon 113	ND	5.0	
1,1-Dichloroethene	ND	5.0	
Methylene Chloride	ND	20	
Carbon Disulfide	ND	5.0	
MTBE	ND	5.0	
trans-1,2-Dichloroethene	ND	5.0	
Vinyl Acetate	ND	50	
1,1-Dichloroethane	ND	5.0	
2-Butanone	ND	10	
cis-1,2-Dichloroethene	ND	5.0	
2,2-Dichloropropane	ND	5.0	
Chloroform	ND	5.0	
Bromochloromethane	ND	5.0	
1,1,1-Trichloroethane	ND	5.0	
1,1-Dichloropropene	ND	5.0	
Carbon Tetrachloride	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Trichloroethene	ND	5.0	
1,2-Dichloropropane	ND	5.0	
Bromodichloromethane	ND	5.0	
Dibromomethane	ND	5.0	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	5.0	
Toluene	ND	5.0	
trans-1,3-Dichloropropene	ND	5.0	
1,1,2-Trichloroethane	ND	5.0	
2-Hexanone	ND	10	
1,3-Dichloropropane	ND	5.0	
Tetrachloroethene	ND	5.0	

ND= Not Detected

RL= Reporting Limit



	Purgeable Organics by GC/MS					
Lab #:	226712	Location: 64th	& Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA	5035			
Project#:	241.082.02.001	Analysis: EPA	8260B			
Type:	BLANK	Diln Fac:	1.000			
Lab ID:	QC584931	Batch#:	173059			
Matrix:	Soil	Analyzed:	03/23/11			
Units:	ug/Kg					

Analyte	Result	RL	
Dibromochloromethane	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Chlorobenzene	ND	5.0	
1,1,1,2-Tetrachloroethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Styrene	ND	5.0	
Bromoform	ND	5.0	
Isopropylbenzene	ND	5.0	
1,1,2,2-Tetrachloroethane	ND	5.0	
1,2,3-Trichloropropane	ND	5.0	
Propylbenzene	ND	5.0	
Bromobenzene	ND	5.0	
1,3,5-Trimethylbenzene	ND	5.0	
2-Chlorotoluene	ND	5.0	
4-Chlorotoluene	ND	5.0	
tert-Butylbenzene	ND	5.0	
1,2,4-Trimethylbenzene	ND	5.0	
sec-Butylbenzene	ND	5.0	
para-Isopropyl Toluene	ND	5.0	
1,3-Dichlorobenzene	ND	5.0	
1,4-Dichlorobenzene	ND	5.0	
n-Butylbenzene	ND	5.0	
1,2-Dichlorobenzene	ND	5.0	
1,2-Dibromo-3-Chloropropane	ND	5.0	
1,2,4-Trichlorobenzene	ND	5.0	
Hexachlorobutadiene	ND	5.0	
Naphthalene	ND	5.0	
1,2,3-Trichlorobenzene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	96	79-120	
1,2-Dichloroethane-d4	95	72-148	
Toluene-d8	94	80-120	
Bromofluorobenzene	94	78-130	

ND= Not Detected

RL= Reporting Limit

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Purgeable Organics by GC/MS					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 5035			
Project#:	241.082.02.001	Analysis: EPA 8260B			
Matrix:	Soil	Batch#: 173059			
Units:	ug/Kg	Analyzed: 03/23/11			
Diln Fac:	1.000				

Type: BS Lab ID: QC584932

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	23.75	22.15	93	68-134
Benzene	23.75	22.99	97	80-128
Trichloroethene	23.75	22.81	96	75-130
Toluene	23.75	21.26	89	80-130
Chlorobenzene	23.75	22.26	94	80-126

Surrogate	%REC	imits	
Dibromofluoromethane	99	9-120	
1,2-Dichloroethane-d4	94	2-148	
Toluene-d8	93	0-120	
Bromofluorobenzene	89	8-130	

Type: BSD Lab ID: QC584933

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	23.75	22.25	94	68-134	0	27
Benzene	23.75	24.11	102	80-128	5	20
Trichloroethene	23.75	22.22	94	75-130	3	20
Toluene	23.75	21.00	88	80-130	1	20
Chlorobenzene	23.75	22.32	94	80-126	0	20

Surrogate	%REC	Limits	
Dibromofluoromethane	100	79-120	
1,2-Dichloroethane-d4	101	72-148	
Toluene-d8	92	80-120	
Bromofluorobenzene	91	78-130	



	Purgeable Org	anics by GC/MS
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 5030B
Project#:	241.082.02.001	Analysis: EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#: 173059
MSS Lab ID:	226789-001	Sampled: 03/22/11
Matrix:	Soil	Received: 03/22/11
Units:	ug/Kg	Analyzed: 03/23/11
Basis:	as received	

Type: MS Diln Fac: 0.9671

Lab ID: QC584947

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5750	48.36	36.19	75	65-139
Benzene	<0.9368	48.36	37.18	77	69-125
Trichloroethene	<1.093	48.36	36.39	75	60-145
Toluene	<1.264	48.36	37.53	78	62-128
Chlorobenzene	<0.2823	48.36	36.67	76	56-127

Surrogate	%REC	Limits
Dibromofluoromethane	95	79-120
1,2-Dichloroethane-d4	92	72-148
Toluene-d8	94	80-120
Bromofluorobenzene	89	78-130

Type: MSD Diln Fac: 0.9747

Lab ID: QC584948

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	48.73	42.43	87	65-139	15	38
Benzene	48.73	43.69	90	69-125	15	36
Trichloroethene	48.73	42.45	87	60-145	15	41
Toluene	48.73	39.69	81	62-128	5	41
Chlorobenzene	48.73	39.61	81	56-127	7	42

Surrogate	%REC	Limits	
Dibromofluoromethane	98	79-120	
1,2-Dichloroethane-d4	93	72-148	
Toluene-d8	91	80-120	
Bromofluorobenzene	91	78-130	



	Semivolatile	Organics by GC/MS
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 3550B
Project#:	241.082.02.001	Analysis: EPA 8270C
Field ID:	SB-35-8.5	Batch#: 172990
Lab ID:	226712-005	Sampled: 03/17/11
Matrix:	Soil	Received: 03/17/11
Units:	ug/Kg	Prepared: 03/21/11
Basis:	as received	Analyzed: 03/22/11
Diln Fac:	10.00	

Analyte N-Nitrosodimethylamine Phenol	ND	2 200	
		3,300	
PHEHOL	ND	3,300	
ois(2-Chloroethyl)ether	ND	3,300	
2-Chlorophenol	ND	3,300	
1,3-Dichlorobenzene	ND	3,300	
1,4-Dichlorobenzene	ND	3,300	
Benzyl alcohol	ND	3,300	
1,2-Dichlorobenzene	ND	3,300	
2-Methylphenol	ND	3,300	
ois(2-Chloroisopropyl) ether	ND	3,300	
4-Methylphenol	ND	3,300	
N-Nitroso-di-n-propylamine	ND	3,300	
Hexachloroethane	ND	3,300	
Nitrobenzene	ND	3,300	
Isophorone	ND ND	3,300	
	ND ND		
2-Nitrophenol	ND ND	6,700	
2,4-Dimethylphenol		3,300	
Benzoic acid	ND	17,000	
ois(2-Chloroethoxy)methane	ND	3,300	
		3,300	
		3,300	
3-Nitroaniline	ND	6,700	
Acenaphthene	ND		
2,4-Dinitrophenol	ND	6,700	
4-Nitrophenol	ND	6,700	
Dibenzofuran	ND	3,300	
2,4-Dinitrotoluene	ND	3,300	
Diethylphthalate	ND	3,300	
Fluorene	ND	670	
4-Chlorophenyl-phenylether	ND	3,300	
4-Nitroaniline	ND	6,700	
4,6-Dinitro-2-methylphenol	ND	6,700	
	ND		
Azobenzene	ND		
Hexachlorobenzene	ND		
2,4-Dichlorophenol 1,2,4-Trichlorobenzene Naphthalene 4-Chloroaniline Hexachlorobutadiene 4-Chloro-3-methylphenol 2-Methylnaphthalene Hexachlorocyclopentadiene 2,4,6-Trichlorophenol 2,4,5-Trichlorophenol 2-Chloronaphthalene 2-Nitroaniline Dimethylphthalate Acenaphthylene 2,6-Dinitrotoluene 3-Nitroaniline Acenaphthene 2,4-Dinitrophenol 4-Nitrophenol Dibenzofuran 2,4-Dinitrotoluene Diethylphthalate Fluorene 4-Chlorophenyl-phenylether 4,6-Dinitro-2-methylphenol N-Nitrosodiphenylamine Azobenzene 4-Bromophenyl-phenylether	ND ND ND ND ND ND ND ND ND ND ND ND ND N	3,300 3,300 3,300 3,300 3,300 6,700 3,300 3,300 6,700 3,300 6,700 6,700 6,700 6,700 6,700 6,700 6,700 3,300 3,300 3,300 6,700	

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 1 of 2



	Semivolatile	Organics by GC/MS
Lab #: Client:	226712 PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA Prep: EPA 3550B
Project#:	241.082.02.001	Analysis: EPA 8270C
Field ID:	SB-35-8.5	Batch#: 172990
Lab ID:	226712-005	Sampled: 03/17/11
Matrix: Units:	Soil	Received: 03/17/11
Basis:	ug/Kg as received	Prepared: 03/21/11 Analyzed: 03/22/11
Diln Fac:	10.00	Anaryzed: U3/22/11

Analyte	Result	RL	
Di-n-butylphthalate	ND	3,300	
Fluoranthene	ND	670	
Pyrene	1,100	670	
Butylbenzylphthalate	ND	3,300	
3,3'-Dichlorobenzidine	ND	6,700	
Benzo(a)anthracene	ND	670	
Chrysene	ND	670	
bis(2-Ethylhexyl)phthalate	ND	3,300	
Di-n-octylphthalate	ND	3,300	
Benzo(b)fluoranthene	ND	670	
Benzo(k)fluoranthene	ND	670	
Benzo(a)pyrene	ND	670	
Indeno(1,2,3-cd)pyrene	ND	670	
Dibenz(a,h)anthracene	ND	670	
Benzo(g,h,i)perylene	ND	670	

Surrogate	%REC	Limits
2-Fluorophenol D	00	35-120
Phenol-d5	00	33-120
2,4,6-Tribromophenol D	00	30-120
Nitrobenzene-d5 D	00	43-120
2-Fluorobiphenyl D	00	47-120
Terphenyl-d14 D	00	40-120

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Field ID:	SB-11-12.5	Batch#: 172990			
Lab ID:	226712-009	Sampled: 03/17/11			
Matrix:	Soil	Received: 03/17/11			
Units:	ug/Kg	Prepared: 03/21/11			
Basis:	as received	Analyzed: 03/22/11			
Diln Fac:	1.000				

Analyte	Result	RL	
N-Nitrosodimethylamine	ND	330	
Phenol	ND	330	
bis(2-Chloroethyl)ether	ND	330	
2-Chlorophenol	ND	330	
1,3-Dichlorobenzene	ND	330	
1,4-Dichlorobenzene	ND	330	
Benzyl alcohol	ND	330	
1,2-Dichlorobenzene	ND	330	
2-Methylphenol	ND	330	
bis(2-Chloroisopropyl) ether	ND	330	
4-Methylphenol	ND	330	
N-Nitroso-di-n-propylamine	ND	330	
Hexachloroethane	ND	330	
Nitrobenzene	ND	330	
Isophorone	ND	330	
2-Nitrophenol	ND	660	
2,4-Dimethylphenol	ND	330	
Benzoic acid	ND	1,700	
bis(2-Chloroethoxy)methane	ND	330	
2,4-Dichlorophenol	ND	330	
1,2,4-Trichlorobenzene	ND	330	
Naphthalene	ND	66	
4-Chloroaniline	ND	330	
Hexachlorobutadiene	ND	330	
4-Chloro-3-methylphenol	ND	330	
2-Methylnaphthalene	ND	66	
Hexachlorocyclopentadiene	ND	660	
2,4,6-Trichlorophenol	ND ND	330	
2,4,5-Trichlorophenol	ND	330	
2-Chloronaphthalene	ND ND	330	
2-Nitroaniline	ND ND	660	
Dimethylphthalate	ND ND	330	
Acenaphthylene	ND ND	66	
2,6-Dinitrotoluene	ND ND	330	
3-Nitroaniline	ND ND	660	
Acenaphthene	ND ND	66	
2,4-Dinitrophenol	ND ND	660	
4-Nitrophenol	ND ND	660	
Dibenzofuran	ND ND	330	
2,4-Dinitrotoluene	ND ND	330	
Diethylphthalate	ND ND	330	
	ND ND	66	
Fluorene		330	
4-Chlorophenyl-phenylether	ND		
4-Nitroaniline	ND	660	
4,6-Dinitro-2-methylphenol	ND	660	
N-Nitrosodiphenylamine	ND	330 330	
Azobenzene	ND		
4-Bromophenyl-phenylether	ND	330	
Hexachlorobenzene	ND	330	
Pentachlorophenol	ND	660	
Phenanthrene	ND	66	
Anthracene	ND	66	
Di-n-butylphthalate	ND	330	

ND= Not Detected RL= Reporting Limit Page 1 of 2



Semivolatile Organics by GC/MS					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Field ID:	SB-11-12.5	Batch#: 172990			
Lab ID:	226712-009	Sampled: 03/17/11			
Matrix:	Soil	Received: 03/17/11			
Units:	ug/Kg	Prepared: 03/21/11			
Basis:	as received	Analyzed: 03/22/11			
Diln Fac:	1.000	-			

Analyte	Result	RL	
Fluoranthene	ND	66	
Pyrene	ND	66	
Butylbenzylphthalate	ND	330	
3,3'-Dichlorobenzidine	ND	660	
Benzo(a)anthracene	ND	66	
Chrysene	ND	66	
bis(2-Ethylhexyl)phthalate	ND	330	
Di-n-octylphthalate	ND	330	
Benzo(b)fluoranthene	ND	66	
Benzo(k)fluoranthene	ND	66	
Benzo(a)pyrene	ND	66	
Indeno(1,2,3-cd)pyrene	ND	66	
Dibenz(a,h)anthracene	ND	66	
Benzo(g,h,i)perylene	ND	66	

Surrogate	%REC	Limits	
2-Fluorophenol	74	35-120	
Phenol-d5	77	33-120	
2,4,6-Tribromophenol	76	30-120	
Nitrobenzene-d5	65	43-120	
2-Fluorobiphenyl	76	47-120	
Terphenyl-d14	69	40-120	

ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Field ID:	SB-19-7.5	Batch#: 172990			
Lab ID:	226712-030	Sampled: 03/17/11			
Matrix:	Soil	Received: 03/17/11			
Units:	uq/Kq	Prepared: 03/21/11			
Basis:	as received	Analyzed: 03/22/11			

Analyte	Result	RL	Diln Fac
N-Nitrosodimethylamine	ND	1,600	5.000
Phenol	ND	1,600	5.000
bis(2-Chloroethyl)ether	ND	1,600	5.000
2-Chlorophenol	ND	1,600	5.000
1,3-Dichlorobenzene	ND	1,600	5.000
1,4-Dichlorobenzene	ND	1,600	5.000
Benzyl alcohol	ND	1,600	5.000
1,2-Dichlorobenzene	ND	1,600	5.000
2-Methylphenol	ND	1,600	5.000
bis(2-Chloroisopropyl) ether	ND	1,600	5.000
4-Methylphenol	ND	1,600	5.000
N-Nitroso-di-n-propylamine	ND	1,600	5.000
Hexachloroethane	ND	1,600	5.000
Nitrobenzene	ND	1,600	5.000
Isophorone	ND	1,600	5.000
2-Nitrophenol	ND	3,300	5.000
2,4-Dimethylphenol	ND	1,600	5.000
Benzoic acid	ND	8,200	5.000
bis(2-Chloroethoxy)methane	ND	1,600	5.000
2,4-Dichlorophenol	ND	1,600	5.000
1,2,4-Trichlorobenzene	ND	1,600	5.000
Naphthalene	ND	330	5.000
4-Chloroaniline	ND	1,600	5.000
Hexachlorobutadiene	ND	1,600	5.000
4-Chloro-3-methylphenol	ND	1,600	5.000
2-Methylnaphthalene	ND	330	5.000
Hexachlorocyclopentadiene	ND	3,300	5.000
2,4,6-Trichlorophenol	ND	1,600	5.000
2,4,5-Trichlorophenol	ND	1,600	5.000
2-Chloronaphthalene	ND	1,600	5.000
2-Nitroaniline	ND	3,300	5.000
Dimethylphthalate	ND	1,600	5.000
Acenaphthylene	ND	330	5.000
2,6-Dinitrotoluene	ND	1,600	5.000
3-Nitroaniline	ND	3,300	5.000
Acenaphthene	ND	330	5.000
2,4-Dinitrophenol	ND	3,300	5.000
4-Nitrophenol	ND	3,300	5.000
Dibenzofuran	ND	1,600	5.000
2,4-Dinitrotoluene	ND	1,600	5.000
Diethylphthalate	ND	1,600	5.000
Fluorene	ND	330	5.000
4-Chlorophenyl-phenylether	ND	1,600	5.000
4-Nitroaniline	ND	3,300	5.000
4,6-Dinitro-2-methylphenol	ND	3,300	5.000
N-Nitrosodiphenylamine	ND	1,600	5.000
Azobenzene	ND	1,600	5.000
4-Bromophenyl-phenylether	ND	1,600	5.000
Hexachlorobenzene	ND	1,600	5.000
Pentachlorophenol	ND	3,300	5.000
Phenanthrene	ND	3,300	5.000
Anthracene	ND	330	5.000
Di-n-butylphthalate	ND ND	1,600	5.000
DI II DUCYIPIICIIAIACE	IND	1,000	J.000

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 1 of 2



Semivolatile Organics by GC/MS					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Field ID:	SB-19-7.5	Batch#: 172990			
Lab ID:	226712-030	Sampled: 03/17/11			
Matrix:	Soil	Received: 03/17/11			
Units:	ug/Kg	Prepared: 03/21/11			
Basis:	as received	Analyzed: 03/22/11			

Analyte	Result	RL	Diln Fac	
Fluoranthene	ND	330	5.000	
Pyrene	ND	2,600	40.00	
Butylbenzylphthalate	ND	13,000	40.00	
3,3'-Dichlorobenzidine	ND	26,000	40.00	
Benzo(a)anthracene	ND	2,600	40.00	
Chrysene	ND	2,600	40.00	
bis(2-Ethylhexyl)phthalate	ND	13,000	40.00	
Di-n-octylphthalate	ND	13,000	40.00	
Benzo(b)fluoranthene	ND	2,600	40.00	
Benzo(k)fluoranthene	ND	2,600	40.00	
Benzo(a)pyrene	ND	2,600	40.00	
Indeno(1,2,3-cd)pyrene	ND	2,600	40.00	
Dibenz(a,h)anthracene	ND	2,600	40.00	
Benzo(g,h,i)perylene	ND	2,600	40.00	

Surrogate	%REC	Limits	Diln Fac	
2-Fluorophenol 7	'8	35-120	5.000	
Phenol-d5 8	31	33-120	5.000	
2,4,6-Tribromophenol 7	13	30-120	5.000	
	8	43-120	5.000	
2-Fluorobiphenyl 8	36	47-120	5.000	
Terphenyl-d14 D	00	40-120	40.00	

DO= Diluted Out ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: EPA 3550B			
Project#:	241.082.02.001	Analysis: EPA 8270C			
Field ID:	SB-30-8.5	Batch#: 172990			
Lab ID:	226712-041	Sampled: 03/17/11			
Matrix:	Soil	Received: 03/17/11			
Units:	ug/Kg	Prepared: 03/21/11			
Basis:	as received	Analyzed: 03/22/11			

N-Nitrosodimethylamine ND 330 1.000	Analyte	Result	RL	Diln Fac
Phenol				
bis(2-Chloroethyl)ether		ND		
2-Chlorophenol				
1,3-Dichlorobenzene				
1,4-Dichlorobenzene	_			
Senzyl alcohol				
1,2-\$\tilde{\text{int}}\text{location} \text{location} \text{ND} \\ \text{330} \\ \text{location} \text{location} \text{location} \text{location} \\ \text{location} \text{location} \text{location} \\ \text{location} \text{location} \text{location} \\ \text{location} \text{location} \\ \text{location} \text{location} \\ \text{location} \text{location} \\ \text{location} \text{location} \\ \text{location} \text{location} \\ \text{location} \text{location} \\				
2-Methylphenol ND 330 1.000				
bis (2-Chloroisopropyl) ether				
A-methylphenol ND 330 1.000 N=Nitroso-di-n-propylamine ND 330 1.000 Nitrobenzene ND 330 1.000 Isophorone ND				
N-Nitroso-di-n-propylamine ND 330 1.000 Nexachloroethane ND 330 1.000 Nitrobenzene ND 330 1.000 Nitrobenzene ND 330 1.000 Not Sample Samp	4-Methylphenol		330	
Hexachloroethane	N-Nitroso-di-n-propylamine			
Nitrobenzen				
Isophorone				
2-Nitrophenol ND 660 1.000				
2,4-Dimethylphenol				
Benzoic acid ND				
Discription ND				
2,4-pichlorophenol				
1,2,4-Trichlorobenzene				
Naphthalene				
4-Chloroaniline				
Hexachlorobutadiene				
4-Chloro-3-methylphenol				
2-Methylnaphthalene				
Hexachlorocyclopentadiene				
2,4,6-Trichlorophenol				
2,4,5-Trichlorophenol ND 330 1.000 2-Chloronaphthalene ND 330 1.000 2-Nitroaniline ND 660 1.000 Dimethylphthalate ND 330 1.000 Acenaphtylene ND 66 1.000 2,6-Dinitrotoluene ND 66 1.000 3-Nitroaniline ND 660 1.000 Acenaphthene ND 66 1.000 2,4-Dinitrophenol ND 660 1.000 4-Nitrophenol ND 330 1.000 10ibenzofuran ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 Diethylphthalate ND 330 1.000 4-Chlorophenyl-phenylether ND 66 1.000 4-Nitroaniline ND 660 1.000 4-Nitrosodiphenyl-phenylether ND 660 1.000 4, Spendylphenylether ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Azobenzene <td< td=""><td>2.4.6-Trichlorophenol</td><td></td><td></td><td></td></td<>	2.4.6-Trichlorophenol			
2-Chloronaphthalene ND 330 1.000 2-Nitroaniline ND 660 1.000 Dimethylphthalate ND 330 1.000 Acenaphthylene ND 66 1.000 2,6-Dinitrotoluene ND 330 1.000 3-Nitroaniline ND 660 1.000 Acenaphthene ND 66 1.000 Acenaphthene ND 66 1.000 4-Nitrophenol ND 660 1.000 4-Nitrophenol ND 330 1.000 Dibenzofuran ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 Fluorene ND 330 1.000 4-Chlorophenyl-phenylether ND 66 1.000 4-Nitroaniline ND 660 1.000 4-Nitrosodiphenylamine ND 660 1.000 N-Nitrosodiphenyl-phenylether ND 330 1.000 Azobenzene ND 330 1.000 Hexachlorobenzene ND 66 1.000				
2-Nitronaliline				
Dimethylphthalate				
Acenaphthylene ND 66 1.000 2,6-Dinitrotoluene ND 330 1.000 3-Nitroaniline ND 660 1.000 Acenaphthene ND 66 1.000 4-Capinitrophenol ND 660 1.000 4-Nitrophenol ND 660 1.000 2,4-Dinitrophenol ND 660 1.000 4-Nitrophenol ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 Fluorene ND 330 1.000 4-Chlorophenyl-phenylether ND 330 1.000 4-Chlorophenyl-phenylether ND 330 1.000 4-Nitroaniline ND 660 1.000 4-O-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Azobenzene ND 330 1.000 Fentachlorophenol ND 330 1.000 Pentachlorophenol ND 330 1.000 Pentachlorophenol ND 330 1.000 Phenanthrene ND 330 1.000 Phenanthrene ND 330 1.000 Phenanthrene ND 660 1.000 Di-n-butylphthalate ND 330 1.000				
2,6-Dinitrotoluene				
3-Nitroaniline				
Acenaphthene ND 66 1.000 2,4-Dinitrophenol ND 660 1.000 4-Nitrophenol ND 660 1.000 Dibenzofuran ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 Diethylphthalate ND 330 1.000 Fluorene ND 66 1.000 4-Chlorophenyl-phenylether ND 330 1.000 4-Nitroaniline ND 660 1.000 4,6-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 66 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
2,4-Dinitrophenol ND 660 1.000 4-Nitrophenol ND 660 1.000 Dibenzofuran ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 Diethylphthalate ND 330 1.000 Fluorene ND 66 1.000 4-Chlorophenyl-phenylether ND 330 1.000 4-Nitroaniline ND 660 1.000 4,6-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
4-Nitrophenol ND 660 1.000 Dibenzofuran ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 Diethylphthalate ND 330 1.000 Fluorene ND 66 1.000 4-Chlorophenyl-phenylether ND 330 1.000 4-Nitroaniline ND 660 1.000 4,6-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 66 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
Dibenzofuran ND 330 1.000 2,4-Dinitrotoluene ND 330 1.000 Diethylphthalate ND 330 1.000 Diethylphthalate ND 330 1.000 Fluorene ND 66 1.000 4-Chlorophenyl-phenylether ND 330 1.000 4-Nitroaniline ND 660 1.000 4,6-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorophenol ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 666 1.000 Di-n-butylphthalate ND 330 1.000				
2,4-Dinitrotoluene ND 330 1.000 Diethylphthalate ND 330 1.000 Fluorene ND 66 1.000 4-Chlorophenyl-phenylether ND 330 1.000 4-Nitroaniline ND 660 1.000 4-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
Diethylphthalate ND 330 1.000 Fluorene ND 66 1.000 4-Chlorophenyl-phenylether ND 330 1.000 4-Nitroaniline ND 660 1.000 4,6-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
Fluorene				
4-Chlorophenyl-phenylether ND 330 1.000 4-Nitroaniline ND 660 1.000 4,6-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
4-Nitroaniline ND 660 1.000 4,6-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
4,6-Dinitro-2-methylphenol ND 660 1.000 N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
N-Nitrosodiphenylamine ND 330 1.000 Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
Azobenzene ND 330 1.000 4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
4-Bromophenyl-phenylether ND 330 1.000 Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
Hexachlorobenzene ND 330 1.000 Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
Pentachlorophenol ND 660 1.000 Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
Phenanthrene 93 66 1.000 Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
Anthracene ND 66 1.000 Di-n-butylphthalate ND 330 1.000				
Di-n-butylphthalate ND 330 1.000				
	Fluoranthene	ND	66	1.000

ND= Not Detected RL= Reporting Limit Page 1 of 2



	Semivolatile O	rganics by GC/MS
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 3550B
Project#:	241.082.02.001	Analysis: EPA 8270C
Field ID:	SB-30-8.5	Batch#: 172990
Lab ID:	226712-041	Sampled: 03/17/11
Matrix:	Soil	Received: 03/17/11
Units:	ug/Kg	Prepared: 03/21/11
Basis:	as received	Analyzed: 03/22/11

Analyte	Result	RL	Diln Fac	
Pyrene	ND	66	1.000	
Butylbenzylphthalate	ND	330	1.000	
3,3'-Dichlorobenzidine	ND	660	1.000	
Benzo(a)anthracene	ND	66	1.000	
Chrysene	ND	66	1.000	
bis(2-Ethylhexyl)phthalate	ND	330	1.000	
Di-n-octylphthalate	ND	330	1.000	
Benzo(b)fluoranthene	ND	66	1.000	
Benzo(k)fluoranthene	ND	66	1.000	
Benzo(a)pyrene	ND	66	1.000	
Indeno(1,2,3-cd)pyrene	ND	66	1.000	
Dibenz(a,h)anthracene	ND	66	1.000	
Benzo(g,h,i)perylene	ND	66	1.000	

Surrogate	%REC	Limits	Diln Fac
2-Fluorophenol	39	35-120	1.000
Phenol-d5	60	33-120	1.000
2,4,6-Tribromophenol	73	30-120	1.000
Nitrobenzene-d5	63	43-120	1.000
2-Fluorobiphenyl	75	47-120	1.000
Terphenyl-d14	69	40-120	1.000

ND= Not Detected RL= Reporting Limit Page 2 of 2



	Semivolatile	Organics by GC/MS
Lab #: Client:	226712 PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA Prep: EPA 3550B
Project#:	241.082.02.001	Analysis: EPA 8270C
Type: Lab ID: Matrix: Units:	BLANK QC584646 Soil ug/Kg	Diln Fac: 1.000 Batch#: 172990 Prepared: 03/21/11 Analyzed: 03/22/11

Analyte	Result	RL	
N-Nitrosodimethylamine	ND	330	
Phenol	ND	330	
bis(2-Chloroethyl)ether	ND	330	
2-Chlorophenol	ND	330	
1,3-Dichlorobenzene	ND	330	
1,4-Dichlorobenzene	ND	330	
Benzyl alcohol	ND	330	
1,2-Dichlorobenzene	ND	330	
2-Methylphenol	ND	330	
bis(2-Chloroisopropyl) ether	ND	330	
4-Methylphenol	ND	330	
N-Nitroso-di-n-propylamine	ND	330	
Hexachloroethane	ND	330	
Nitrobenzene	ND	330	
Isophorone	ND	330	
2-Nitrophenol	ND	660	
2,4-Dimethylphenol	ND	330	
Benzoic acid	ND	1,700	
bis(2-Chloroethoxy)methane	ND	330	
2,4-Dichlorophenol	ND	330	
1,2,4-Trichlorobenzene	ND	330	
Naphthalene	ND	66	
4-Chloroaniline	ND	330	
Hexachlorobutadiene	ND	330	
4-Chloro-3-methylphenol	ND	330	
2-Methylnaphthalene	ND	66	
Hexachlorocyclopentadiene	ND	660	
2,4,6-Trichlorophenol	ND	330	
2,4,5-Trichlorophenol	ND	330	
2-Chloronaphthalene	ND ND	330	
2-Nitroaniline	ND ND	660	
Dimethylphthalate	ND ND	330	
	ND ND	66	
Acenaphthylene 2,6-Dinitrotoluene	ND ND	330	
3-Nitroaniline	ND ND	660	
Acenaphthene	ND ND	66	
■	ND ND	660	
2,4-Dinitrophenol			
4-Nitrophenol	ND	660	
Dibenzofuran	ND	330	
2,4-Dinitrotoluene	ND	330	
Diethylphthalate	ND	330	
Fluorene	ND	66	
4-Chlorophenyl-phenylether	ND	330	
4-Nitroaniline	ND	660	
4,6-Dinitro-2-methylphenol	ND	660	
N-Nitrosodiphenylamine	ND	330	
Azobenzene	ND	330	
4-Bromophenyl-phenylether	ND	330	
Hexachlorobenzene	ND	330	
Pentachlorophenol	ND	660	
Phenanthrene	ND	66	
Anthracene	ND	66	
Di-n-butylphthalate	ND	330	
Fluoranthene	ND	66	

ND= Not Detected RL= Reporting Limit Page 1 of 2



	Semivolatile (organics by GC/MS
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 3550B
Project#:	241.082.02.001	Analysis: EPA 8270C
Type: Lab ID:	BLANK	Diln Fac: 1.000
Lab ID:	QC584646	Batch#: 172990
Matrix:	Soil	Prepared: 03/21/11
Units:	ug/Kg	Analyzed: 03/22/11

Analyte	Result	RL	
Pyrene	ND	66	
Butylbenzylphthalate	ND	330	
3,3'-Dichlorobenzidine	ND	660	
Benzo(a)anthracene	ND	66	
Chrysene	ND	66	
bis(2-Ethylhexyl)phthalate	ND	330	
Di-n-octylphthalate	ND	330	
Benzo(b)fluoranthene	ND	66	
Benzo(k)fluoranthene	ND	66	
Benzo(a)pyrene	ND	66	
Indeno(1,2,3-cd)pyrene	ND	66	
Dibenz(a,h)anthracene	ND	66	
Benzo(g,h,i)perylene	ND	66	

Surrogate	%REC	Limits
2-Fluorophenol	74	35-120
Phenol-d5	76	33-120
2,4,6-Tribromophenol	63	30-120
Nitrobenzene-d5	66	43-120
2-Fluorobiphenyl	76	47-120
Terphenyl-d14	68	40-120

ND= Not Detected RL= Reporting Limit Page 2 of 2



Semivolatile Organics by GC/MS			
Lab #:	226712	Location: 64th & Christie Emeryville, CA	
Client:	PES Environmental, Inc.	Prep: EPA 3550B	
Project#:	241.082.02.001	Analysis: EPA 8270C	
Type:	LCS	Diln Fac: 1.000	
Lab ID:	QC584647	Batch#: 172990	
Matrix:	Soil	Prepared: 03/21/11	
Units:	ug/Kg	Analyzed: 03/22/11	

Analyte	Spiked	Result	%REC	Limits
Phenol	2,664	2,011	75	39-120
2-Chlorophenol	2,664	2,000	75	44-120
1,4-Dichlorobenzene	2,664	1,978	74	46-120
N-Nitroso-di-n-propylamine	2,664	1,753	66	33-120
1,2,4-Trichlorobenzene	2,664	2,090	78	48-120
4-Chloro-3-methylphenol	2,664	2,148	81	47-120
Acenaphthene	999.0	752.6	75	47-120
4-Nitrophenol	2,664	2,180	82	35-120
2,4-Dinitrotoluene	2,664	2,091	78	46-120
Pentachlorophenol	2,664	2,047	77	25-120
Pyrene	999.0	791.3	79	45-120

Surrogate	%REC	Limits
2-Fluorophenol	71	35-120
Phenol-d5	75	33-120
2,4,6-Tribromophenol	79	30-120
Nitrobenzene-d5	65	43-120
2-Fluorobiphenyl	72	47-120
Terphenyl-d14	69	40-120

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	Semivolatile	Organics by GC/MS
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: EPA 3550B
Project#:	241.082.02.001	Analysis: EPA 8270C
Field ID:	SB-11-12.5	Batch#: 172990
MSS Lab ID:	226712-009	Sampled: 03/17/11
Matrix:	Soil	Received: 03/17/11
Units:	ug/Kg	Prepared: 03/21/11
Basis:	as received	Analyzed: 03/22/11
Diln Fac:	1.000	

Type: MS Lab ID: QC584648

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<7.026	2,638	2,231	85	41-120
2-Chlorophenol	<7.316	2,638	2,111	80	44-120
1,4-Dichlorobenzene	<7.659	2,638	1,999	76	46-120
N-Nitroso-di-n-propylamine	<7.821	2,638	1,927	73	36-120
1,2,4-Trichlorobenzene	<7.849	2,638	2,083	79	48-120
4-Chloro-3-methylphenol	<8.287	2,638	2,255	85	47-120
Acenaphthene	<8.159	989.1	783.7	79	45-120
4-Nitrophenol	<70.86	2,638	2,373	90	35-120
2,4-Dinitrotoluene	<9.564	2,638	2,035	77	44-120
Pentachlorophenol	<127.2	2,638	1,848	70	19-120
Pyrene	26.93	989.1	845.3	83	41-120

Surrogate	%REC	Limits	
2-Fluorophenol	76	35-120	
Phenol-d5	85	33-120	
2,4,6-Tribromophenol	71	30-120	
Nitrobenzene-d5	71	43-120	
2-Fluorobiphenyl	75	47-120	
Terphenyl-d14	70	40-120	

Type: MSD Lab ID: QC584649

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	2,652	2,322	88	41-120	3	45
2-Chlorophenol	2,652	2,188	83	44-120	3	44
1,4-Dichlorobenzene	2,652	2,059	78	46-120	2	41
N-Nitroso-di-n-propylamine	2,652	2,018	76	36-120	4	50
1,2,4-Trichlorobenzene	2,652	2,145	81	48-120	2	39
4-Chloro-3-methylphenol	2,652	2,309	87	47-120	2	40
Acenaphthene	994.4	802.5	81	45-120	2	39
4-Nitrophenol	2,652	2,391	90	35-120	0	57
2,4-Dinitrotoluene	2,652	2,085	79	44-120	2	42
Pentachlorophenol	2,652	1,769	67	19-120	5	66
Pyrene	994.4	878.6	86	41-120	3	52

Surrogate	%REC	Limits
2-Fluorophenol	78	35-120
Phenol-d5	87	33-120
2,4,6-Tribromophenol	67	30-120
Nitrobenzene-d5	74	43-120
2-Fluorobiphenyl	76	47-120
Terphenyl-d14	73	40-120



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-20-1.5	Basis:	as received			
Lab ID:	226712-001	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	9.5	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	23	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	200	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.28	0.10	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	1.0	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	35	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	8.0	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	200	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	180	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.62	0.021	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.73	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	39	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	32	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	240	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-20-8.5	Basis:	as received			
Lab ID:	226712-002	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.8	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	15	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	110	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.18	0.10	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	0.61	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	29	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	8.1	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	82	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	65	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.11	0.020	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.58	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	36	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	29	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	130	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th 8	& Christie Emeryville, CA			
Field ID:	SB-20-12.5	Basis:	as received			
Lab ID:	226712-003	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.2	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	7.7	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	150	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.36	0.10	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	41	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	12	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	43	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	35	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.28	0.020	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.64	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	47	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	33	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	81	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-35-2.5	Basis:	as received			
Lab ID:	226712-004	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	8.2	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	7.7	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	160	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.43	0.10	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	0.31	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	28	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	10	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	70	0.26	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	78	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.54	0.020	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.68	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	33	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	44	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	120	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th 8	& Christie Emeryville, CA			
Field ID:	SB-35-8.5	Basis:	as received			
Lab ID:	226712-005	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.5	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	3.1	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	67	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.28	0.10	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	0.46	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	14	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	5.8	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	26	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	17	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.20	0.020	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.60	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	14	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	20	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	56	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-35-12.5	Basis:	as received			
Lab ID:	226712-006	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	6.1	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	3.1	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	220	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.26	0.10	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	0.43	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	19	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	4.3	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	28	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	65	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.21	0.020	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.97	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	23	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	23	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	200	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226712	Project#: 241.082.02.001				
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA				
Field ID:	SB-11-2.5	Basis: as received				
Lab ID:	226712-007	Diln Fac: 1.000				
Matrix:	Soil	Sampled: 03/17/11				
Units:	mg/Kg	Received: 03/17/11				

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	6.9	0.50	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Arsenic	3.7	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Barium	130	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Beryllium	0.50	0.10	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cadmium	0.28	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Chromium	37	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cobalt	9.7	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Copper	34	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Lead	20	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Mercury	0.056	0.020	173057 03/23/11	03/23/11 METHOD	EPA 7471A
Molybdenum	0.64	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Nickel	54	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Vanadium	52	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Zinc	49	1.0	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-11-7.5	Basis:	as received			
Lab ID:	226712-008	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	4.0	0.50	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Arsenic	3.4	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Barium	200	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Beryllium	0.44	0.10	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Chromium	39	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cobalt	12	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Copper	16	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Lead	25	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Mercury	0.099	0.020	173057 03/23/11	03/23/11 METHOD	EPA 7471A
Molybdenum	0.42	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Nickel	53	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Vanadium	36	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Zinc	49	1.0	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-11-12.5	Basis:	as received			
Lab ID:	226712-009	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	5.7	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	8.0	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	190	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.47	0.10	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	0.31	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	37	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	9.9	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	51	0.26	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	88	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.29	0.021	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	1.0	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	35	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	0.30	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	41	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	280	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals Lab #: Project#: 241.082.02.001 226712 Client: PES Environmental, Inc. Location: 64th & Christie Emeryville, CA Field ID: SB-34-2.5 Basis: as received Lab ID: 226712-010 Sampled: 03/17/11 Matrix: Soil Received: 03/17/11 Units: mg/Kg

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	20	0.50	1.000	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	14	0.25	1.000	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	170	0.25	1.000	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.32	0.10	1.000	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	0.73	0.25	1.000	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	31	0.25	1.000	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	9.2	0.25	1.000	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	160	0.25	1.000	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	680	2.4	10.00	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.19	0.020	1.000	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.63	0.25	1.000	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	34	0.25	1.000	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	38	0.25	1.000	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	250	1.0	1.000	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B

ND= Not Detected RL= Reporting Limit

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California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-34-8.5	Basis:	as received			
Lab ID:	226712-011	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	4.1	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	3.1	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	120	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.47	0.10	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	27	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	6.5	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	18	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	24	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.19	0.020	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.54	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	22	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	25	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	36	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-34-10.5	Basis:	as received			
Lab ID:	226712-012	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	4.2	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	2.4	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	93	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.39	0.10	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	0.49	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	24	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	3.3	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	36	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	250	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.42	0.022	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.78	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	15	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	12	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	100	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226712	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th 8	& Christie Emeryville, CA				
Field ID:	SB-21-2.5	Basis:	as received				
Lab ID:	226712-013	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/17/11				
Units:	mg/Kg	Received:	03/17/11				

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	4.9	0.50	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Arsenic	4.3	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Barium	86	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Beryllium	0.27	0.10	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Chromium	40	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cobalt	9.8	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Copper	18	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Lead	44	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Mercury	0.066	0.020	173057 03/23/11	03/23/11 METHOD	EPA 7471A
Molybdenum	0.33	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Nickel	42	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Vanadium	34	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Zinc	62	1.0	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-21-8.5	Basis:	as received			
Lab ID:	226712-014	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	10	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	5.8	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	120	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.33	0.10	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	1.2	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	37	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	8.3	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	52	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	140	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.25	0.020	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.76	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	37	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	36	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	430	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-21-12.5	Basis:	as received			
Lab ID:	226712-015	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	12	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	4.2	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	110	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.25	0.10	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	0.43	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	30	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	7.7	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	77	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	84	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.39	0.020	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	1.1	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	31	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	30	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	100	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B

ND= Not Detected RL= Reporting Limit Page 1 of 1



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	2.02.001			
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA			
Field ID:	SB-33-2.5	Basis:	as received			
Lab ID:	226712-016	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	6.9	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	4.1	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	200	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.46	0.10	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	0.59	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	44	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	18	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	25	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	6.7	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.11	0.020	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	1.2	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	64	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	51	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	44	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th 8	& Christie Emeryville, CA			
Field ID:	SB-33-8.5	Basis:	as received			
Lab ID:	226712-017	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	8.9	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	6.6	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	140	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	0.38	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	27	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	6.8	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	72	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	69	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.32	0.021	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	1.2	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	22	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	37	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	110	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226712	Project#: 241.082.0	2.001			
Client:	PES Environmental, Inc.	Location: 64th & Ch	ristie Emeryville, CA			
Field ID:	SB-33-12.5	Basis: as	received			
Lab ID:	226712-018	Diln Fac: 1.	000			
Matrix:	Soil	Sampled: 03	3/17/11			
Units:	mg/Kg	Received: 03	/17/11			

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	5.3	0.50	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Arsenic	5.6	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Barium	110	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Beryllium	0.40	0.10	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Chromium	27	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cobalt	12	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Copper	14	0.26	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Lead	6.7	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Mercury	0.074	0.020	173057 03/23/11	03/23/11 METHOD	EPA 7471A
Molybdenum	0.91	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Nickel	34	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Vanadium	32	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Zinc	28	1.0	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th 8	& Christie Emeryville, CA			
Field ID:	SB-23-2.5	Basis:	as received			
Lab ID:	226712-019	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	9.5	0.50	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	8.7	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	160	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.48	0.10	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cadmium	0.52	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	35	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Cobalt	8.8	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Copper	140	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Lead	83	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Mercury	0.18	0.022	173057	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.88	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	35	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959	03/20/11	03/29/11	EPA 3050B	EPA 6010B
Vanadium	34	0.25	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	94	1.0	172959	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals						
Lab #:	226712	Project#: 241.082.02	.001			
Client:	PES Environmental, Inc.	Location: 64th & Chr	istie Emeryville, CA			
Field ID:	SB-23-7.0	Basis: as	received			
Lab ID:	226712-020	Diln Fac: 1.0	00			
Matrix:	Soil	Sampled: 03/	17/11			
Units:	mg/Kg	Received: 03/	17/11			

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	4.0	0.50	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Arsenic	3.0	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Barium	130	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Beryllium	0.45	0.10	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cadmium	0.32	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Chromium	40	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Cobalt	8.4	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Copper	16	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Lead	110	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Mercury	0.048	0.021	173054 03/23/11	03/23/11 METHOD	EPA 7471A
Molybdenum	0.72	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Nickel	35	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172959 03/20/11	03/29/11 EPA 3050B	EPA 6010B
Vanadium	37	0.25	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Zinc	54	1.0	172959 03/20/11	03/27/11 EPA 3050B	EPA 6010B

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California Title 22 Metals						
Lab #:	226712	Project#: 241.082.02.001				
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA				
Field ID:	SB-23-12.5	Basis: as received				
Lab ID:	226712-021	Diln Fac: 1.000				
Matrix:	Soil	Sampled: 03/17/11				
Units:	mg/Kg	Received: 03/17/11				

Analyte	Result	RL	Batch# Prepared	Analyzed Prep	Analysis
Antimony	2.2	0.50	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Arsenic	6.0	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Barium	66	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Beryllium	0.21	0.10	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Cadmium	0.34	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Chromium	24	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Cobalt	6.5	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Copper	8.3	0.25	172960 03/20/11	03/28/11 EPA 3050B	EPA 6010B
Lead	12	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Mercury	0.035	0.020	173054 03/23/11	03/23/11 METHOD	EPA 7471A
Molybdenum	0.53	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Nickel	24	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Selenium	ND	0.50	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Silver	ND	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Thallium	ND	0.50	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Vanadium	28	0.25	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B
Zinc	23	1.0	172960 03/20/11	03/27/11 EPA 3050B	EPA 6010B



California Title 22 Metals Project#: 241.082.02.001 Lab #: 226712 Client: PES Environmental, Inc. Location: 64th & Christie Emeryville, CA Field ID: SB-22-2.5 Basis: as received Lab ID: 226712-026 Sampled: 03/17/11 Matrix: Soil Received: 03/17/11 Units: mg/Kg

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	8.8	0.50	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	98	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	630	2.2	10.00	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Beryllium	0.34	0.10	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	2.5	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	40	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	11	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	200	0.25	1.000	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Lead	190	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.35	0.020	1.000	173054	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	4.5	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	45	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	33	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	560	8.9	10.00	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B

ND= Not Detected RL= Reporting Limit



California Title 22 Metals						
Lab #:	226712	Project#: 241.08	32.02.001			
Client:	PES Environmental, Inc.	Location: 64th 8	& Christie Emeryville, CA			
Field ID:	SB-22-7.0	Basis:	as received			
Lab ID:	226712-027	Diln Fac:	1.000			
Matrix:	Soil	Sampled:	03/17/11			
Units:	mg/Kg	Received:	03/17/11			

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	3.1	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	2.7	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	170	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.41	0.10	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	36	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	6.3	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	14	0.25	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Lead	94	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.10	0.020	173054	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.32	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	34	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	34	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	54	1.0	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B



	California Title 22 Metals									
Lab #:	226712	Project#: 241.082.02.001								
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA								
Field ID:	SB-22-12.5	Basis: as received								
Lab ID:	226712-028	Sampled: 03/17/11								
Matrix:	Soil	Received: 03/17/11								
Units:	ma/Ka									

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	6.9	0.50	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	6.9	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	180	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	0.45	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	35	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	8.9	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	78	0.25	1.000	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Lead	130	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	2.0	0.096	5.000	173054	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	2.3	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	32	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	34	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	140	1.0	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B



	California Title 22 Metals									
Lab #:	226712	Project#: 241.082.02.001								
Client:	PES Environmental, Inc.	Location: 64th & Christie Emeryville, CA								
Field ID:	SB-19-2.5	Basis: as received								
Lab ID:	226712-029	Sampled: 03/17/11								
Matrix:	Soil	Received: 03/17/11								
Units:	mg/Kg									

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	13	0.50	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	120	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	640	2.2	10.00	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Beryllium	0.28	0.10	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	3.9	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	59	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	8.0	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	790	2.3	10.00	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Lead	330	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.29	0.021	1.000	173054	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.60	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	49	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Silver	0.40	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	32	0.25	1.000	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	1,500	8.9	10.00	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B

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	California Title 22 Metals								
Lab #:	226712	Project#: 241.08	32.02.001						
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA						
Field ID:	SB-19-7.5	Basis:	as received						
Lab ID:	226712-030	Diln Fac:	1.000						
Matrix:	Soil	Sampled:	03/17/11						
Units:	mg/Kg	Received:	03/17/11						

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	12	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	16	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	430	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.56	0.10	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	1.1	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	33	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	7.3	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	110	0.26	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Lead	250	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.35	0.020	173054	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	1.1	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	47	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	53	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	190	1.0	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226712	Project#: 241.08	32.02.001					
Client:	PES Environmental, Inc.	Location: 64th 8	& Christie Emeryville, CA					
Field ID:	SB-19-12.5	Basis:	as received					
Lab ID:	226712-031	Diln Fac:	1.000					
Matrix:	Soil	Sampled:	03/17/11					
Units:	mg/Kg	Received:	03/17/11					

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	4.4	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	6.8	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	180	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.29	0.10	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	34	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	7.0	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	19	0.25	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Lead	53	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.76	0.020	173054	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.63	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	31	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	0.67	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	32	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	85	1.0	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226712	Project#: 241.08	32.02.001					
Client:	PES Environmental, Inc.	Location: 64th 8	& Christie Emeryville, CA					
Field ID:	SB-18-2.5	Basis:	as received					
Lab ID:	226712-037	Diln Fac:	1.000					
Matrix:	Soil	Sampled:	03/17/11					
Units:	mg/Kg	Received:	03/17/11					

Analyte	Result	RL	Batch# 3	Prepared	Analyzed	Prep	Analysis
Antimony	5.9	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	68	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	290	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.27	0.10	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	11	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	38	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	6.9	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	230	0.25	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Lead	170	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.56	0.020	173054	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.66	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Nickel	32	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	2.8	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Silver	0.30	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Vanadium	24	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	430	1.0	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals								
Lab #:	226712	Project#: 241.08	32.02.001					
Client:	PES Environmental, Inc.	Location: 64th 8	Christie Emeryville, CA					
Field ID:	SB-18-7.0	Basis:	as received					
Lab ID:	226712-038	Diln Fac:	1.000					
Matrix:	Soil	Sampled:	03/17/11					
Units:	mg/Kg	Received:	03/17/11					

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	1.1	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Arsenic	2.8	0.25	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Barium	72	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.25	0.10	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	15	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	3.7	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	9.6	0.25	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Lead	24	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.15	0.020	173054	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	ND	0.25	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Nickel	18	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Thallium	1.2	0.50	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Vanadium	17	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	27	1.0	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B



California Title 22 Metals							
Lab #:	226712	Project#: 241.08	32.02.001				
Client:	PES Environmental, Inc.	Location: 64th &	Christie Emeryville, CA				
Field ID:	SB-18-12.5	Basis:	as received				
Lab ID:	226712-039	Diln Fac:	1.000				
Matrix:	Soil	Sampled:	03/17/11				
Units:	mg/Kg	Received:	03/17/11				

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	7.4	0.50	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Arsenic	5.5	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Barium	170	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Beryllium	0.40	0.10	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cadmium	0.33	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Chromium	66	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Cobalt	9.5	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Copper	25	0.26	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Lead	14	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Mercury	0.26	0.020	173054	03/23/11	03/23/11	METHOD	EPA 7471A
Molybdenum	0.36	0.25	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Nickel	59	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Selenium	ND	0.50	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Silver	ND	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Thallium	ND	0.50	172960	03/20/11	03/28/11	EPA 3050B	EPA 6010B
Vanadium	48	0.25	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B
Zinc	160	1.0	172960	03/20/11	03/27/11	EPA 3050B	EPA 6010B

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California Title 22 Metals							
Lab #:	226712	Location: 64th & Christie Emeryville, CA					
Client:	PES Environmental, Inc.	Prep: EPA 3050B					
Project#:	241.082.02.001	Analysis: EPA 6010B					
Type:	BLANK	Diln Fac: 1.000					
Lab ID:	QC584526	Batch#: 172959					
Matrix:	Soil	Prepared: 03/20/11					
Units:	mg/Kg						

Analyte	Result	RL	Analyzed	
Antimony	ND	0.50	03/27/11	
Arsenic	ND	0.25	03/27/11	
Barium	ND	0.25	03/27/11	ļ
Beryllium	ND	0.10	03/27/11	ļ
Cadmium	ND	0.25	03/27/11	ļ
Chromium	ND	0.25	03/27/11	ļ
Cobalt	ND	0.25	03/27/11	ļ
Copper	ND	0.26	03/29/11	ļ
Lead	ND	0.25	03/27/11	ļ
Molybdenum	ND	0.25	03/27/11	
Nickel	ND	0.25	03/27/11	ļ
Selenium	ND	0.50	03/29/11	ļ
Silver	ND	0.25	03/29/11	ļ
Thallium	ND	0.50	03/27/11	
Vanadium	ND	0.25	03/27/11	
Zinc	ND	1.0	03/27/11	

ND= Not Detected RL= Reporting Limit



California Title 22 Metals						
Lab #: Client: Project#:	226712 PES Environmental, Inc. 241.082.02.001	Location: 64th & Christie Emeryville, CA Prep: EPA 3050B Analysis: EPA 6010B				
Matrix: Units: Diln Fac:	Soil mg/Kg 1.000	Batch#: 172959 Prepared: 03/20/11				

Type: BS Lab ID: QC584527

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	100.0	101.7	102	80-120	03/27/11
Arsenic	50.00	52.04	104	80-120	03/27/11
Barium	100.0	97.40	97	80-120	03/27/11
Beryllium	2.500	2.486	99	80-120	03/27/11
Cadmium	10.00	10.24	102	80-120	03/27/11
Chromium	100.0	96.03	96	80-120	03/27/11
Cobalt	25.00	23.51	94	80-120	03/27/11
Copper	12.50	12.35	99	78-120	03/29/11
Lead	100.0	95.34	95	80-120	03/27/11
Molybdenum	20.00	19.56	98	80-120	03/27/11
Nickel	25.00	23.75	95	80-120	03/27/11
Selenium	50.00	52.78	106	80-120	03/29/11
Silver	10.00	9.849	98	80-120	03/29/11
Thallium	50.00	48.35	97	80-120	03/27/11
Vanadium	25.00	24.60	98	80-120	03/27/11
Zinc	25.00	24.60	98	80-120	03/27/11

Type: BSD Lab ID: QC584528

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	100.0	101.0	101	80-120	1	20	03/27/11
Arsenic	50.00	51.71	103	80-120	1	20	03/27/11
Barium	100.0	97.48	97	80-120	0	20	03/27/11
Beryllium	2.500	2.504	100	80-120	1	20	03/27/11
Cadmium	10.00	10.23	102	80-120	0	20	03/27/11
Chromium	100.0	96.46	96	80-120	0	20	03/27/11
Cobalt	25.00	23.47	94	80-120	0	20	03/27/11
Copper	12.50	12.33	99	78-120	0	20	03/29/11
Lead	100.0	95.42	95	80-120	0	20	03/27/11
Molybdenum	20.00	19.48	97	80-120	0	20	03/27/11
Nickel	25.00	23.72	95	80-120	0	20	03/27/11
Selenium	50.00	51.73	103	80-120	2	20	03/29/11
Silver	10.00	9.704	97	80-120	1	20	03/29/11
Thallium	50.00	48.23	96	80-120	0	20	03/27/11
Vanadium	25.00	24.56	98	80-120	0	20	03/27/11
Zinc	25.00	24.49	98	80-120	0	20	03/27/11



California Title 22 Metals						
Lab #:	226712	Location: 64th & Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 3050B				
Project#:	241.082.02.001	Analysis: EPA 6010B				
Field ID:	SB-20-1.5	Batch#: 172959				
MSS Lab ID:	226712-001	Sampled: 03/17/11				
Matrix:	Soil	Received: 03/17/11				
Units:	mg/Kg	Prepared: 03/20/11				
Basis:	as received	•				

Lab ID: QC584529 Type: MS

Analyte	MSS Result	Spiked	Result	%REC	Limits Diln Fac	Analyzed
Antimony	9.468	88.50	57.85	55	7-120 1.000	03/27/11
Arsenic	22.95	44.25	95.59	164 *	66-122 1.000	03/27/11
Barium	200.7	88.50	329.7	146 *	51-135 1.000	03/27/11
Beryllium	0.2761	2.212	2.272	90	73-120 1.000	03/27/11
Cadmium	1.013	8.850	9.749	99	64-120 1.000	03/27/11
Chromium	35.25	88.50	116.9	92	57-122 1.000	03/27/11
Cobalt	8.024	22.12	27.61	89	53-122 1.000	03/27/11
Copper	200.0	11.06	204.8	43 NM	33-157 1.000	03/29/11
Lead	176.8	88.50	318.3	160 *	52-123 10.00	03/30/11
Molybdenum	0.7301	17.70	16.70	90	66-120 1.000	03/27/11
Nickel	39.44	22.12	60.28	94	42-137 1.000	03/27/11
Selenium	<0.1354	44.25	43.94	99	64-120 1.000	03/29/11
Silver	0.2358	8.850	8.691	96	65-120 1.000	03/29/11
Thallium	<0.1300	44.25	39.41	89	55-120 1.000	03/27/11
Vanadium	31.56	22.12	54.05	102	49-139 1.000	03/27/11
Zinc	239.7	22.12	268.3	129 NM	32-155 1.000	03/27/11

Type: MSD Lab ID: QC584530

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac	Analyzed
Antimony	92.59	122.3	122 *	7-120	68 *	44	1.000	03/27/11
Arsenic	46.30	63.20	87	66-122	44 *	35	1.000	03/27/11
Barium	92.59	322.2	131	51-135	4	42	1.000	03/27/11
Beryllium	2.315	2.403	92	73-120	2	22	1.000	03/27/11
Cadmium	9.259	9.632	93	64-120	5	36	1.000	03/27/11
Chromium	92.59	119.6	91	57-122	1	34	1.000	03/27/11
Cobalt	23.15	29.01	91	53-122	2	32	1.000	03/27/11
Copper	11.57	171.6	-246 NM	33-157	18	41	1.000	03/29/11
Lead	92.59	957.2	843 *	52-123	99 *	41	10.00	03/30/11
Molybdenum	18.52	17.53	91	66-120	0	20	1.000	03/27/11
Nickel	23.15	61.25	94	42-137	0	36	1.000	03/27/11
Selenium	46.30	46.12	100	64-120	0	28	1.000	03/29/11
Silver	9.259	9.471	100	65-120	4	27	1.000	03/29/11
Thallium	46.30	42.36	91	55-120	3	27	1.000	03/27/11
Vanadium	23.15	53.72	96	49-139	3	32	1.000	03/27/11
Zinc	23.15	250.8	48 NM	32-155	7	45	1.000	03/27/11

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^{*=} Value outside of QC limits; see narrative NM= Not Meaningful: Sample concentration > 4X spike concentration RPD= Relative Percent Difference



California Title 22 Metals							
Lab #:	226712	Location: 64th &	Christie Emeryville, CA				
Client:	PES Environmental, Inc.	Prep: EPA 305	0B				
Project#:	241.082.02.001	Analysis: EPA 601	0B				
Type:	BLANK	Diln Fac:	1.000				
Lab ID:	QC584531	Batch#:	172960				
Matrix:	Soil	Prepared:	03/20/11				
Units:	mg/Kg	Analyzed:	03/27/11				

Analyte	Result	RL	
Antimony	ND	0.50	
Arsenic	ND	0.25	
Barium	ND	0.25	
Beryllium	ND	0.10	
Cadmium	ND	0.25	
Chromium	ND	0.25	
Cobalt	ND	0.25	
Copper	ND	0.26	
Lead	ND	0.25	
Molybdenum	ND	0.25	
Nickel	ND	0.25	
Selenium	ND	0.50	
Silver	ND	0.25	
Thallium	ND	0.50	
Vanadium	ND	0.25	
Zinc	ND	1.0	

ND= Not Detected RL= Reporting Limit



California Title 22 Metals					
Lab #: Client: Project#:	226712 PES Environmental, Inc. 241.082.02.001	Location: 64th & Christie Emeryville, CA Prep: EPA 3050B Analysis: EPA 6010B			
Matrix: Units: Diln Fac:	Soil mg/Kg 1.000	Batch#: 172960 Prepared: 03/20/11			

Type: BS Lab ID: QC584532

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	100.0	97.67	98	80-120	03/27/11
Arsenic	50.00	50.67	101	80-120	03/27/11
Barium	100.0	96.10	96	80-120	03/27/11
Beryllium	2.500	2.523	101	80-120	03/27/11
Cadmium	10.00	10.34	103	80-120	03/27/11
Chromium	100.0	94.46	94	80-120	03/27/11
Cobalt	25.00	23.13	93	80-120	03/27/11
Copper	12.50	11.98	96	78-120	03/28/11
Lead	100.0	95.59	96	80-120	03/27/11
Molybdenum	20.00	20.06	100	80-120	03/27/11
Nickel	25.00	23.78	95	80-120	03/27/11
Selenium	50.00	48.81	98	80-120	03/27/11
Silver	10.00	9.582	96	80-120	03/27/11
Thallium	50.00	47.10	94	80-120	03/27/11
Vanadium	25.00	24.56	98	80-120	03/27/11
Zinc	25.00	22.71	91	80-120	03/27/11

Type: BSD Lab ID: QC584533

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	100.0	98.95	99	80-120	1	20	03/27/11
Arsenic	50.00	51.77	104	80-120	2	20	03/27/11
Barium	100.0	96.40	96	80-120	0	20	03/27/11
Beryllium	2.500	2.533	101	80-120	0	20	03/27/11
Cadmium	10.00	10.59	106	80-120	2	20	03/27/11
Chromium	100.0	95.36	95	80-120	1	20	03/27/11
Cobalt	25.00	23.61	94	80-120	2	20	03/27/11
Copper	12.50	12.45	100	78-120	4	20	03/28/11
Lead	100.0	97.65	98	80-120	2	20	03/27/11
Molybdenum	20.00	20.32	102	80-120	1	20	03/27/11
Nickel	25.00	24.29	97	80-120	2	20	03/27/11
Selenium	50.00	49.30	99	80-120	1	20	03/27/11
Silver	10.00	9.560	96	80-120	0	20	03/27/11
Thallium	50.00	48.05	96	80-120	2	20	03/27/11
Vanadium	25.00	24.81	99	80-120	1	20	03/27/11
Zinc	25.00	23.00	92	80-120	1	20	03/27/11



California Title 22 Metals				
Lab #:	226712	Location: 64th & Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: EPA 3050B		
Project#:	241.082.02.001	Analysis: EPA 6010B		
Field ID:	SB-23-12.5	Diln Fac: 1.000		
MSS Lab ID:	226712-021	Batch#: 172960		
Matrix:	Soil	Sampled: 03/17/11		
Units:	mg/Kg	Received: 03/17/11		
Basis:	as received	Prepared: 03/20/11		

Lab ID: QC584534 Type: MS

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analyzed
Antimony	2.151	100.0	61.91	60	7-120	03/27/11
Arsenic	6.029	50.00	60.90	110	66-122	03/27/11
Barium	66.01	100.0	154.4	88	51-135	03/27/11
Beryllium	0.2062	2.500	2.879	107	73-120	03/27/11
Cadmium	0.3421	10.00	10.28	99	64-120	03/27/11
Chromium	23.69	100.0	124.9	101	57-122	03/27/11
Cobalt	6.535	25.00	32.59	104	53-122	03/27/11
Copper	8.267	12.50	27.42	153	33-157	03/28/11
Lead	11.98	100.0	96.04	84	52-123	03/27/11
Molybdenum	0.5348	20.00	19.86	97	66-120	03/27/11
Nickel	23.90	25.00	74.75	203 *	42-137	03/27/11
Selenium	<0.1318	50.00	48.68	97	64-120	03/27/11
Silver	<0.06735	10.00	9.818	98	65-120	03/27/11
Thallium	0.2478	50.00	43.71	87	55-120	03/27/11
Vanadium	28.28	25.00	69.02	163 *	49-139	03/27/11
Zinc	23.07	25.00	56.66	134	32-155	03/27/11

MSD Lab ID: QC584535 Type:

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	88.50	56.07	61	7-120	2	44	03/27/11
Arsenic	44.25	49.94	99	66-122	9	35	03/27/11
Barium	88.50	155.3	101	51-135	8	42	03/27/11
Beryllium	2.212	2.419	100	73-120	6	22	03/27/11
Cadmium	8.850	8.068	87	64-120	12	36	03/27/11
Chromium	88.50	107.9	95	57-122	5	34	03/27/11
Cobalt	22.12	27.54	95	53-122	7	32	03/27/11
Copper	11.06	24.37	146	33-157	5	41	03/28/11
Lead	88.50	77.52	74	52-123	11	41	03/27/11
Molybdenum	17.70	16.92	93	66-120	4	20	03/27/11
Nickel	22.12	65.08	186 *	42-137	8	36	03/27/11
Selenium	44.25	37.00	84	64-120	15	28	03/27/11
Silver	8.850	7.529	85	65-120	14	27	03/27/11
Thallium	44.25	33.29	75	55-120	15	27	03/27/11
Vanadium	22.12	66.51	173 *	49-139	2	32	03/27/11
Zinc	22.12	53.24	136	32-155	0	45	03/27/11

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^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference



	California T	itle 22 Metals
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: METHOD
Project#:	241.082.02.001	Analysis: EPA 7471A
Analyte:	Mercury	Diln Fac: 1.000
Type:	BLANK	Batch#: 173054
Lab ID:	QC584907	Prepared: 03/23/11
Matrix:	Soil	Analyzed: 03/23/11
Units:	mg/Kg	

Result	RL	
ND	0.020	

ND= Not Detected RL= Reporting Limit Page 1 of 1



	California '	Title 22 Metals
Lab #:	226712	Location: 64th & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: METHOD
Project#:	241.082.02.001	Analysis: EPA 7471A
Analyte:	Mercury	Batch#: 173054
Matrix:	Soil	Prepared: 03/23/11
Units:	mg/Kg	Analyzed: 03/23/11
Diln Fac:	1.000	

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584908	0.2500	0.2580	103	80-120		
BSD	QC584909	0.2500	0.2540	102	80-120	2	20



	California	Title 22 Meta	ls
Lab #:	226712	Location: 64th	n & Christie Emeryville, CA
Client:	PES Environmental, Inc.	Prep: METH	HOD
Project#:	241.082.02.001	Analysis: EPA	7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	SB-23-12.5	Batch#:	173054
MSS Lab ID:	226712-021	Sampled:	03/17/11
Matrix:	Soil	Received:	03/17/11
Units:	mg/Kg	Prepared:	03/23/11
Basis:	as received	Analyzed:	03/23/11

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584910	0.03528	0.2500	0.3210	114	72-124		
MSD	QC584911		0.2315	0.2954	112	72-124	2	31



California Title 22 Metals					
Lab #:	226712	Location: 64th & Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD			
Project#:	241.082.02.001	Analysis: EPA 7471A			
Analyte:	Mercury	Diln Fac: 1.000			
Type:	BLANK	Batch#: 173057			
Lab ID:	QC584920	Prepared: 03/23/11			
Matrix:	Soil	Analyzed: 03/23/11			
Units:	mg/Kg				

Result	RL	
ND	0.020	

ND= Not Detected RL= Reporting Limit

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California Title 22 Metals					
Lab #:	226712	Location: 64th &	Christie Emeryville, CA		
Client:	PES Environmental, Inc.	Prep: METHOD)		
Project#:	241.082.02.001	Analysis: EPA 74	171A		
Analyte:	Mercury	Batch#:	173057		
Matrix:	Soil	Prepared:	03/23/11		
Units:	mg/Kg	Analyzed:	03/23/11		
Diln Fac:	1.000				

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC584921	0.2500	0.2570	103	80-120		
BSD	QC584922	0.2500	0.2520	101	80-120	2	20



California Title 22 Metals						
Lab #:	226712	Location: 64th &	Christie Emeryville, CA			
Client:	PES Environmental, Inc.	Prep: METHOD)			
Project#:	241.082.02.001	Analysis: EPA 74	.71A			
Analyte:	Mercury	Diln Fac:	1.000			
Field ID:	SB-20-1.5	Batch#:	173057			
MSS Lab ID:	226712-001	Sampled:	03/17/11			
Matrix:	Soil	Received:	03/17/11			
Units:	mg/Kg	Prepared:	03/23/11			
Basis:	as received	Analyzed:	03/23/11			

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC584923	0.6208	0.2604	0.8313	81	72-124		
MSD	QC584924		0.2717	0.7870	61 *	72-124	7	31

^{*=} Value outside of QC limits; see narrative RPD= Relative Percent Difference Page 1 of 1

DISTRIBUTION

RESULTS OF PRE-EXCAVATION INVESTIGATION AND PRELIMINARY SOIL CHARACTERIZATION PROPOSED 64th AND CHRISTIE RESIDENTIAL BUILDING 64th STREET & CHRISTIE AVENUE EMERYVILLE, CALIFORNIA

JUNE 1, 2011

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