

November 2, 2009

644.014.01.004

Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710

Attention: Ms. Lynn Nakashima

**RESULTS OF EVALUATION OF PRE-CONSTRUCTION CONDITIONS IN SOIL
MEADE BY-PASS ROADWAY
RICHMOND, CALIFORNIA**

Dear Ms. Nakashima:

PES Environmental, Inc. (PES) is pleased to present this Results of Evaluation of Pre-Construction Conditions in Soil (Report) for the temporary Meade By-Pass Roadway in Richmond, California (subject property or Site) (Plate 1). This Report has been prepared by PES on behalf of the Richmond Community Redevelopment Agency (Agency). PES understands the temporary roadway will be located adjacent to an inactive railroad spur and on adjacent vacant properties separately owned by the City of Richmond, the Union Pacific Railroad, and the University of California, Richmond Field Station (RFS).

The work activities were conducted in accordance with the workplan (PES, 2009), which was approved by California Department of Toxic Substances Control (DTSC) in an email sent to PES on April 27, 2009.

BACKGROUND INFORMATION

Historically, an adjacent property west of the Site was previously occupied by Pacific Gas & Electric (PG&E) and utilized as a transformer manufacturing plant, as shown in Figure 9 of Appendix A. PES' review of reports prepared by others (Tetra Tech EM, Inc., 2007) indicate that surface soil samples from 0 to 0.5 feet below ground surface (bgs) were collected in July 2006 from the RFS, City of Richmond, and Union Pacific Railroad properties in the vicinity of the proposed temporary by-pass roadway, and analyzed for polychlorinated biphenyls (PCBs). The locations of the surface soil samples are shown on Plate 2 and Figure 17 (Appendix A). As summarized in Tables D-14 and D-17 (Appendix A), and as shown on Plate 32 (Appendix A), PCBs were detected in sample PCB16 at a concentration of

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0.034 milligrams per kilogram (mg/Kg), PCB19 at 0.028 mg/Kg, PCB11 at 0.011 mg/Kg, and PCB14 at 0.016 mg/Kg. PCBs were not detected at or above the respective laboratory reporting limit in any other surface soil samples collected in the vicinity of the proposed temporary by-pass roadway. No constituents other than PCBs were analyzed. None of the detections exceeded the California Human Health Screening Levels (CHHSL) established by the Office of Environmental Health Hazard Assessment (OEHHA) (Cal/EPA, 2005) for total PCB concentrations in commercial/industrial soils of 0.300 mg/Kg.

SCOPE OF WORK

The scope of work implemented during this investigation was intended to evaluate the potential for the subject property soil to be affected by chemicals of potential concern (COPCs) prior to proposed roadway construction activities. As described in the approved workplan, the scope of work provided for assessment of metals, PCBs, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, herbicides, and total petroleum hydrocarbons quantified as motor oil (TPHmo) in soil samples from the ground surface and from multiple depth intervals in the vicinity of the proposed temporary by-pass roadway.

The scope of work for the pre-construction site evaluation included the following activities: (1) field preparation activities; (2) collecting and analyzing soil samples; and (3) project management and reporting.

Field Preparation Activities

On July 17, 2009, boring locations were measured and marked, Underground Service Alert was contacted to provide notification to public and private utility companies, and C. Cruz, Inc., a private utility locator, conducted an electromagnetic conductivity survey to clear the sampling locations of subsurface utilities prior to the sampling event. PES also obtained boring permits from the Contra Costa Environmental Health Division (CCEHD) for the soil sampling activities conducted on the City of Richmond and RFS properties, respectively. The CCEHD boring permits are presented in Appendix B.

Additionally, a site-specific Health & Safety Plan complying with applicable federal and California Occupational Safety and Health Administration (OSHA) guidelines was prepared to address the work activities.

Soil Sampling Methods

On July 23, 2009, soil matrix samples were collected at six locations, as shown on Plate 2. The soil borings were drilled by Vironex, Inc. of Pacheco, California under the supervision

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of PES. Borings for each sampling location were continuously cored using a track-mounted limited-access rig utilizing hydraulic direct push methodology. A PES geologist supervised the drilling activities and prepared a lithologic log for each boring using the Unified Soil Classification System and Munsell Color Index. The lithologic boring logs are presented in Appendix C.

Continuous soil cores were collected by driving a 5-foot long by 2-inch outside-diameter open-tube sampler into undisturbed soil. The open-tube sampler was lined with one 5-foot long, clear acetate sample sleeve. Soil samples collected for non-volatile compounds were collected in the acetate sample sleeve. The acetate sample sleeve was cut at the appropriate depth interval into a 6-inch long section, and sealed with Teflon liners and plastic end caps to prevent moisture and/or contaminant loss. Soil samples submitted for VOC analysis were collected in accordance with U.S. Environmental Protection Agency (EPA) Method 5035 using a sampler device made of an inert composite polymer designed to collect, store and deliver soil in a sealed, headspace-free state. Three sampler devices were collected at each interval selected for VOC analysis. Soil samples were periodically field screened for VOCs using a photoionization detector (PID) with a 10.6 electron volt (eV) lamp and recorded on the soil boring log.

At each boring location, soil samples were collected at depth intervals of 0 to 6 inches below ground surface (bgs), 2.5 to 3 feet bgs, and between 7 and 8 feet bgs. Samples were submitted for analysis as follows: (1) California Title 22 metals by U.S. EPA Method 6010B/7400; (2) PCBs by U.S. EPA Method 8082A; (3) VOCs by U.S. EPA Method 8260B (non-surface soil samples only); (4) SVOCs by U.S. EPA Method 8270C; (5) pesticides and herbicides by U.S. EPA Method 8081A; and (6) TPHmo by U.S. EPA Method 8015M using silica gel cleanup.

Following soil sample collection, the containers were labeled for identification and immediately placed in a chilled, thermally insulated cooler containing ice or blue ice. The cooler containing the samples was delivered under chain-of-custody protocol to Curtis & Tompkins analytical laboratory in Berkeley, California. The soil samples were analyzed under a standard one-week turnaround time.

Upon completion of the sampling activities all boreholes were grouted to the surface with a bentonite/cement grout under supervision from a CCEHD grout inspector and in accordance with CCEHD requirements. Latitude and longitude coordinates were obtained at each boring location using a Trimble GeoXH global positioning system (GPS) field computer and are presented in Appendix D.

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Equipment Decontamination

To reduce the potential for cross-contamination between sampling locations, sampling equipment was thoroughly cleaned prior to initiating work and between each sampling location. Sampling equipment was washed in a dilute Alconox solution, rinsed with potable water, and final rinsed with distilled water between each sampling location. All soil solids and decontamination rinsate fluids were placed in secured and labeled Department of Transportation-approved 55-gallon steel drums and temporarily stored on a concrete pad adjacent to Building 120 (Figure 5 in Appendix A) within a locked and gated compound.

Handling, Storage, and Disposal of Investigation-Derived Wastes

Investigation-derived waste (IDW) generated from the sampling activities at each property were segregated by property origin, individually characterized, handled as separate waste streams and temporarily stored at the RFS property. Soil composite samples and decontamination rinsate samples were analyzed for the same suite of analyses as the soil matrix samples. Based on the laboratory analytical results of the composite samples, the IDW generated during the sampling activities was characterized as non-hazardous. Laboratory analytical results and chain-of-custody documentation for the waste characterization samples is presented in Appendix E. The IDW was transported offsite for disposal by a licensed waste transporter (ENV America) on August 21, 2009. IDW disposal documentation is presented in Appendix F.

RESULTS OF EVALUATION OF PRE-CONSTRUCTION CONDITIONS IN SOIL

Subsurface Conditions

During the July 23, 2009 sampling activities, soils recovered from each borehole were recorded on boring logs (Appendix C). Boring locations SB1 through SB5 were advanced to 10 feet bgs. Boring location SB6 was advanced to 12 feet bgs. Soils encountered at boring locations SB1 through SB5 included dry silty gravel and gravelly silt (from ground surface to approximately 2 feet bgs), underlain by slightly damp to moist clay containing varying amounts of silt, sand, and/or gravel. Silty sand was observed from 1 to 4 feet bgs at boring SB1. Boring location SB6 was comprised of 2 to 3 feet of gravel fill, and underlain by clay with various amounts of sand, silt, and gravel.

No groundwater was encountered at any of the six boring locations. No odors or staining indicative of contamination were observed during the soil sampling at boring locations SB1 through SB5. At soil boring location SB6 a mild hydrocarbon odor and dark staining

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was noted in soils recovered from 2 to 10 feet bgs. No elevated PID readings were identified at any depth at boring locations SB1 through SB6.

Laboratory Analytical Results

Analytical laboratory results for soil samples are summarized in Tables 1 through 3 and are included on a compact disk in Appendix E. A total of 18 soil samples were analyzed for PCBs, pesticides, herbicides, SVOCs, TPHmo, and metals (Tables 1 through 3) using the appropriate U.S. EPA test methods. A total of 12 soil samples were analyzed for VOCs using U.S. EPA Test Method 8260B (Table 2).

As shown on Table 1, PCB isomers Aroclor 1254 and Aroclor 1260 were detected in sample SB2-0-0.5 (ground surface soil sample) at concentrations of 0.410 mg/Kg and 0.044 mg/Kg, respectively. No other PCB isomers were detected in that sample. PCBs were not detected in any other samples. Also as summarized on Table 1, 4,4-DDE and 4,4-DDT were detected in SB2-0-0.5 at concentrations of 0.014 mg/Kg and 0.009 mg/Kg, respectively. No other pesticides were detected in that sample. Pesticides were not detected in any other samples. No herbicides were detected in any of the samples at or above the respective laboratory reporting limits.

As presented on Table 2, acenaphthylene, anthracene, and benzo(b)fluoranthene were detected in one sample, SB6-7.5 (7.5 feet bgs), at concentrations of 0.068 mg/Kg, 0.071 mg/Kg, and 0.094 mg/Kg, respectively. Additionally, fluoranthene, phenanthrene, and pyrene were detected in two samples, SB6-0-0.5 (ground surface) and SB6-7.5. The maximum concentration of fluoranthene was 0.240 mg/Kg in sample SB6-0-0.5; the maximum concentration of phenanthrene was 0.240 in sample SB6-0-0.5; and the maximum concentration of pyrene was 0.097 mg/Kg in sample SB6-7.5. Acetone was detected in sample SB6-2.5 at a concentration of 0.020 mg/Kg. Acetone is a typical chemical used by laboratories and may be the result of laboratory use. Other SVOCs and VOCs were not detected at or above the respective analytical laboratory reporting limits in any other samples. Also as summarized in Table 2, TPHmo was detected at concentrations ranging from 8.5 mg/Kg in sample SB1-2.5 (2.5 feet bgs) to 49 mg/Kg in sample SB6-0-0.5 (ground surface).

As summarized in Table 3, detected metals included antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, thallium, vanadium, and zinc. Metals concentrations in the soil samples exceeding commercial/industrial CHHSLs were detected for arsenic, ranging from 0.74 mg/Kg in sample SB6-0-0.5 to 9.0 mg/Kg in sample SB3-0-0.5.

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DISCUSSION OF SOIL INVESTIGATION RESULTS

The following presents a discussion of the results of the laboratory analyses performed on the analyzed soil samples.

PCBs

The soil sampling results for total PCBs reported herein indicate the following:

- PCB-affected soil with concentrations slightly greater than the commercial/industrial CHHSL is only present in surface soil at boring SB2-0-0.5 (Plate 2). The PCB-impacted soil in this location appears to have a vertical extent of less than 2.5 feet (represented by sample SB2-2.5) and is laterally bound by surface samples from borings SB3, PCB16, PCB18, PCB19, and PCB15 (as shown on Plate 2); and
- Utilizing OEHHA guidelines for direct exposure to soil, the cumulative estimated excess lifetime cancer risk (for which there are no constituent other than total PCBs that exceed their respective CHHSL) for a reasonable maximum exposure (RME) to PCB-affected soil (represented by sample SB2-0-0.5) is assessed at approximately 1.51×10^{-6} . The CHHSL hazard-risk spreadsheet output is presented in Appendix G.

SVOCs, Pesticides, Herbicides, VOCs and TPHmo

The soil sampling results for SVOCs, pesticides, herbicides, VOCs, and TPHmo indicate the following:

- Herbicides were not detected at or above the laboratory reporting limit in any samples;
- SVOCs were detected at relatively low levels in two samples (SB6-0-0.5 and SB6-7.5). The maximum concentrations of SVOCs detected are two to three orders of magnitude lower than the respective CHSSL developed for a commercial setting;
- Pesticides (only 4,4-DDE and 4,4-DDT) were also detected at low concentrations in sample SB2-0-0.5. The concentrations of 4,4-DDE and 4,4-DDT detected are two to three orders of magnitude lower than the respective CHSSLs developed for commercial land use;
- Acetone (a VOC) was detected at a low level in sample SB6-2.5. The acetone may be an artifact of laboratory use as acetone is a common chemical used by laboratories. No CHSSL has been developed for acetone; however, the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) has developed Environmental Screening Levels (ESLs) for acetone in soil in commercial/industrial

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settings. The detected concentration of acetone is one order of magnitude lower than the respective ESL; and

- TPHmo was detected at low levels in nine soil samples (SB1-0-0.5, SB1-2.5, SB2-0-0.5, SB3-0-0.5, SB4-0-0.5, SB5-0-0.5, SB6-0-0.5, SB6-2.5, and SB6-7.5). The maximum concentration of TPHmo detected is two orders of magnitude lower than the ESL developed by the RWQCB for residual hydrocarbons in soil in a commercial setting.

Title 22 Metals

The soil sampling for metals concentrations indicate the following:

- With the exception of arsenic, the maximum concentrations of all other metals are all below the respective regulatory screening levels for commercial/industrial settings. Additionally, the concentrations of the metals appear consistent with expected background levels. The concentrations of arsenic are also considered within expected background levels and appear to reflect naturally occurring conditions (Erler & Kalinowski, 2007).

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Results

PES conducted a soil investigation on July 23, 2009 at the subject property in the vicinity of the proposed temporary by-pass road to evaluate pre-construction conditions in soil for potential COPCs. Six soil borings were drilled, and 18 samples were obtained and analyzed. The 18 soil samples were analyzed for PCBs, pesticides, herbicides, SVOCs, TPHmo, and Title 22 metals. Twelve of the samples were also analyzed for VOCs.

Laboratory analysis did not detect VOCs, with the exception of a low concentration of acetone, nor herbicides. PCBs were not detected in 17 of the 18 soil samples. PCB isomers, Aroclor-1254 and Aroclor-1260, were detected above the laboratory reporting limit in one soil sample. The sum of the isomers slightly exceeded the CHSSL established for soil in a commercial setting. The calculated excess lifetime cancer risk is roughly equivalent to one-in-one-million (1×10^{-6}).

Pesticides (4,4-DDE and 4,4-DDT) were not detected in 17 of 18 samples. Concentrations of pesticides were well below conservative screening levels established for soil in a commercial

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setting. SVOCs were not detected in 16 of 18 soil samples. Maximum concentrations of SVOCs were well below conservative screening levels established for commercial settings.

TPHmo was detected in 9 of 18 samples. The maximum concentration of TPHmo is significantly lower than the conservative screening level developed for soil in a commercial setting. Title 22 metals concentrations were not detected above screening levels for commercial/industrial use with the exception of arsenic; however, the concentrations of arsenic are below the upper threshold concentration of 16 mg/Kg established for background levels in soil at a nearby site (Erler & Kalinowski, 2007). The concentrations of other metals also appear consistent with expected background levels.

Conclusions

Based on the results of the investigations conducted on the subject property, PES provides the following conclusions:

- The laboratory results for detected SVOCs, pesticides, VOCs, TPHmo, and metals (with the exception of arsenic) indicate that these constituents were detected at concentrations below applicable regulatory thresholds for commercial/industrial land use (CHHSL, RSL, RSL), and where present in the soil represented by the samples, are (1) limited in areal and lateral extent; and (2) do not present a significant increase in human health risks with respect to the proposed temporary by-pass roadway or for construction workers;
- The calculated human health risk from direct exposure to PCB-affected soil (represented by sample SB2-0-0.5) only slightly exceeds the commercial/industrial land use CHHSL and does not represent a significant increased health risk for the proposed use or for construction workers; and
- Based on the results of the investigations conducted on the subject property, the site is suitable for the intended use as a temporary roadway.

RECOMMENDATIONS

Based on the results of the investigation conducted on the subject property, PES provides the following recommendations:

- No additional testing or remediation is recommended at this time;
- Prior to placement of imported fill materials for construction of the temporary by-pass road, PES recommends that a geotextile fabric (e.g., Mirafi® 500X) should be placed

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on the existing soil surface to provide delineation between the imported fill and site soil. This action will delineate the original soil horizon and provide a demarcation between existing soil and imported soil. Prior to emplacement of a geotextile fabric, the Site should be grubbed of organic material, and to the extent feasible, soil from root balls should be left in place to prevent inadvertent transport of potentially PCB-affected surface soil off-site;

- Acceptable fill material should be identified for use at the site as an engineered material for the construction of the temporary by pass roadway. The fill material to be imported to the site should be selected in accordance with geotechnical requirements developed by the project engineer. The specific volume of fill material required should also be determined by the project engineer; and
- In accordance with the procedures presented in the DTSC-approved workplan prepared for the site, fill materials to be utilized at the site should also be selected and tested in accordance with the DTSC Information Advisory, Clean Imported Fill Material, October 2001 (DTSC Advisory). Source areas for clean fill materials should be sampled and analyzed in accordance with the DTSC Advisory on the basis of the projected volume of fill material to be utilized, once determined. Should sampling of the fill material be required, the recommended sampling frequency should be based on either: (1) the area of the individual borrow area; or (2) the volume of the borrow area stockpiles (see DTSC Advisory for recommended sampling frequencies). The samples should be collected, analyzed, and evaluated prior to delivery of the imported fill material to the subject property.

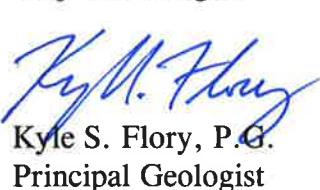
We trust that this provides you with the information that you require at this time. If you have any questions please do not hesitate to contact either of the undersigned at (415) 899-1600.

Very truly yours,

PES ENVIRONMENTAL, INC.



Christopher J. Baldassari
Project Geologist



Kyle S. Flory, P.G.
Principal Geologist



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Attachments: Table 1 – Summary of Laboratory Analytical Results – PCBs, Pesticides, and Herbicides
Table 2 – Summary of Laboratory Analytical Results – SVOCs, VOCs, and Motor Oil
Table 3 – Summary of Laboratory Analytical Results – Title 22 Metals
Plate 1 – Site Location Map
Plate 2 – Distribution of PCBs in Surface Soil (0 – 0.5-foot Depth Interval)

Appendix A – Pertinent Figures and Tables from Environmental Reports
Prepared by Others
Appendix B – Contra Costa County Environmental Health Department Soil Boring Permits
Appendix C – Soil Boring Logs
Appendix D – Soil Boring GPS Coordinates
Appendix E – Laboratory Analytical Results and Chain-of-Custody Documentation – Soil Matrix and Waste Characterization Samples (Compact Disk)
Appendix F – Investigation-Derived Waste Disposal Documentation
Appendix G – DTSC Hazard-Risk Calculation Output Sheet

cc: Alan Wolken, Richmond Community Redevelopment Agency
Jim Branch, Richmond Community Redevelopment Agency
J. Kevin Hufferd, UC Berkeley
Gregory J. Haet, UC Berkeley

REFERENCES

- Cal/EPA, 2005. *California Human Health Screening Levels for Soil and Comparison to Other Potential Environmental Concerns*. Table 1. California Environmental Protection Agency, Department of Toxics Substances Control. January.
- Erler & Kalinowski, 2007. *Technical Memorandum: Background Concentrations of Arsenic in Soil at Campus Bay*. July 23.
- PES Environmental, Inc. 2009. *Workplan for Evaluation of Pre-Construction Conditions in Soil, Meade By-Pass Roadway, Richmond, California*. June 22.
- Regional Water Quality Control Board, San Francisco Bay Region, 2008. *Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater*. May.

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Tetra Tech, EM Inc., and Sea Engineering Inc., 2007. Draft Current Conditions Report,
University of California, Berkeley, Richmond Field Station, Richmond, California.
April 5.

U.S. Environmental Protection Agency, 2009. *Regional Screening Levels (RSL) for Chemical Contamination at Superfund Sites.* April.

TABLES

Table 1
Summary of Laboratory Analytical Results
PCBs, Pesticides, and Herbicides
Meade By-Pass Roadway
Richmond, California

All concentrations expressed in milligrams per kilogram (mg/kg)

Sample ID	Date Sampled	PCBs ¹			Pesticides ¹		Herbicides
		Total PCBs	Aroclor-1254	Aroclor-1260	4,4'- DDE	4,4'- DDT	Varies
SB1-0-0.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB1-2.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB1-7.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB2-0-0.5	7/23/2009	0.454	0.410	0.044	0.014 C	0.009 C #	All ND
SB2-2.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB2-8.0	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB3-0-0.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.016)	ND(0.016)	All ND
SB3-2.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB3-8.0	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0032)	ND(0.0032)	All ND
SB4-0-0.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0032)	ND(0.0032)	All ND
SB4-2.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB4-8.0	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB5-0-0.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB5-2.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB5-7.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB6-0-0.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB6-2.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
SB6-7.5	7/23/2009	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.0033)	ND(0.0033) #	All ND
CHHSL		0.300	NL	NL	6.3	6.3	Varies
USEPA RSL		NL	0.740	0.740	5.1	7.0	Varies
RWQCB ESL		0.740	NL	NL	4.0	4.0	Varies

¹ Only detections from applicable US Environmental Protection Agency (EPA) Test Method analytes are tabulated here. See Appendix A for laboratory analytical reports.

See Appendix A for laboratory analysis.

Total PCBs = Sum of detected Aroclor compounds

4,4-DDE = 4,4-Dichlorodiphenyl dichloroethane

4,4'-DDT = 4,4'-Dichlorodiphenyl dichloroethylene

C = Presence confirmed, but RPD (relative percent difference) between columns exceeds 40%

= CCV (Continuing Calibration Verification) drift outside limits; average CCV drift within limits per method requirements

ND (0.012) = Not Detected at or above the indicated laboratory reporting limit

NL = Not listed

CHHSL = California Human Health Screening Levels - Soils (commercial/industrial land use only). January 2005

US EPA RSL = US Environmental Protection Agency Regional Screening Levels (RSL) for Chemical Contamination at Superfund Sites - Industrial Soil. April 2009.

RWQCB ESL = California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB)

. Table A-2, Shallow Soil Screening Levels, Commercial / Industrial Land Use

(groundwater is not a current or potential drinking water resource)

Table 2
Summary of Laboratory Analytical Results
SVOCs, VOCs, and Motor Oil
Meade By-Pass Roadway
Richmond, California

Sample ID	Date Sampled	SVOCs ¹						VOCs ¹	Hydrocarbons
		Acenaphthylene	Anthracene	Benzo(b) fluoranthene	Fluoranthene	Phenanthrene	Pyrene	Acetone	TPHmo
SB1-0-0.5	7/23/2009	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	NA	9.1
SB1-2.5	7/23/2009	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(19)	8.5
SB1-7.5	7/23/2009	ND(0.067)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(20)	ND(5.0)
SB2-0-0.5	7/23/2009	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	NA	10
SB2-2.5	7/23/2009	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(19)	ND(5.0)
SB2-8.0	7/23/2009	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(19)	ND(5.0)
SB3-0-0.5	7/23/2009	ND(0.270)	ND(0.270)	ND(0.270)	ND(0.270)	ND(0.270)	ND(0.270)	NA	19
SB3-2.5	7/23/2009	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(17)	ND(5.0)
SB3-8.0	7/23/2009	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(16)	ND(5.0)
SB4-0-0.5	7/23/2009	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	NA	13
SB4-2.5	7/23/2009	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(18)	ND(5.0)
SB4-8.0	7/23/2009	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(17)	ND(5.0)
SB5-0-0.5	7/23/2009	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	NA	9.1 Y
SB5-2.5	7/23/2009	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(17)	ND(5.0)
SB5-7.5	7/23/2009	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(0.066)	ND(17)	ND(5.0)
SB6-0-0.5	7/23/2009	ND(0.066)	ND(0.066)	ND(0.066)	0.240	0.240	0.089	NA	49
SB6-2.5	7/23/2009	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	ND(0.067)	0.020	32
SB6-7.5	7/23/2009	0.068	0.071	0.094	0.140	0.200	0.097	ND(17)	26
CHHSL		NL	NL	NL	NL	NL	NL	NL	NL
RWQCB ESL		13.0	2.80	1.30	40.0	11.0	85.0	0.50	2,500

¹ Only detections from applicable US Environmental Protection Agency (EPA) Test Method analytes are tabulated here. See Appendix A for laboratory analytical reports. SVOCs = Semi-volatile organic compounds.

VOCs = Volatile organic compounds

VOCS = Volatile organic compounds
TPHmo = Total petroleum hydrocarbons

TPHmo = Total petroleum hydrocarbons quantified as motor oil ND (0.063) = Not Detected at or above the indicated laboratory

ND (0.067) = Not Detected at or above the indicated laboratory reporting limit.
NA = Not Analyzed

NA = Not Analyzed
NL = Not listed

NL = Not listed

CHHSL = California Human Health Screening Levels - Soils (commercial/industrial land use only). January 2005

RWQCB ESL = California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB)

Table A-2, Shallow Soil Screening Levels, Commercial / Industrial Land Use (groundwater is not a current or potential drinking water resource).

Table 3
Summary of Laboratory Analytical Results
Title 22 Metals
Meade By-Pass Roadway
Evaluation of Pre-Construction Conditions in Soil
All concentrations expressed in milligrams per kilogram (mg/kg)

Sample ID	Date Sampled	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
SB1-0-0.5	7/23/2009	0.89	5.1	180	0.42	ND(0.25)	36	11	21	18	0.24	0.48	31	ND(0.50)	ND(0.25)	ND(0.50)	37	45
SB1-2.5	7/23/2009	ND(0.50)	4.3	180	0.44	ND(0.25)	40	18	15	10	0.047	0.52	35	ND(0.50)	ND(0.25)	ND(0.50)	40	38
SB1-7.5	7/23/2009	ND(0.50)	3.0	51	0.24	ND(0.25)	31	4.1	11	2.6	0.045	ND(0.25)	38	ND(0.50)	ND(0.25)	ND(0.50)	25	26
SB2-0-0.5	7/23/2009	ND(0.50)	3.9	100	0.35	ND(0.25)	30	4.4	18	17	0.18	0.29	18	ND(0.50)	ND(0.25)	ND(0.50)	33	32
SB2-2.5	7/23/2009	ND(0.50)	2.4	89	0.36	ND(0.25)	37	16	12	6.4	0.035	ND(0.25)	22	ND(0.50)	ND(0.25)	ND(0.50)	26	22
SB2-8.0	7/23/2009	ND(0.50)	7.8	160	0.32	ND(0.25)	38	9.8	18	3.3	ND(0.020)	0.69	57	ND(0.50)	ND(0.25)	ND(0.50)	42	36
SB3-0-0.5	7/23/2009	0.79	9.0	550	0.61	ND(0.25)	29	72	18	39	0.075	0.67	41	1.9	ND(0.25)	ND(0.50)	41	26
SB3-2.5	7/23/2009	ND(0.50)	2.5	84	0.32	ND(0.25)	31	4.8	11	4.2	0.022	ND(0.25)	19	ND(0.50)	ND(0.25)	ND(0.50)	21	20
SB3-8.0	7/23/2009	ND(0.50)	3.5	120	0.59	ND(0.25)	42	11	23	5.9	0.061	ND(0.25)	61	ND(0.50)	ND(0.25)	ND(0.50)	25	49
SB4-0-0.5	7/23/2009	ND(0.50)	5.7	210	0.43	ND(0.25)	31	21	13	9.7	0.24	0.47	24	ND(0.50)	ND(0.25)	ND(0.25)	43	22
SB4-2.5	7/23/2009	ND(0.50)	2.9	80	0.32	ND(0.25)	33	6.9	11	6.4	0.057	ND(0.25)	19	ND(0.50)	ND(0.25)	ND(0.50)	26	23
SB4-8.0	7/23/2009	ND(0.50)	4.4	180	0.53	ND(0.25)	50	11	22	6.9	0.026	0.40	57	ND(0.50)	ND(0.25)	ND(0.50)	35	48
SB5-0-0.5	7/23/2009	ND(0.50)	3.6	140	0.33	ND(0.25)	29	6.2	11	7.0	0.18	0.32	19	ND(0.50)	ND(0.25)	ND(0.50)	28	20
SB5-2.5	7/23/2009	ND(0.50)	2.5	89	0.46	ND(0.25)	38	3.0	9.5	3.9	0.074	ND(0.25)	21	ND(0.50)	ND(0.25)	ND(0.50)	26	19
SB5-7.5	7/23/2009	ND(0.50)	6.4	210	0.56	ND(0.25)	51	15	25	6.5	0.087	0.36	68	ND(0.50)	ND(0.25)	ND(0.50)	39	51
SB6-0-0.5	7/23/2009	3.8	0.74	33	0.38	ND(0.25)	9.0	25	35	ND(0.25)	0.075	ND(0.25)	26	ND(0.50)	ND(0.25)	7.9	160	61
SB6-2.5	7/23/2009	8.3	3.8	80	0.45	ND(0.25)	13	10	19	5.6	0.077	0.48	20	ND(0.50)	ND(0.25)	2.0	53	42
SB6-7.5	7/23/2009	ND(0.50)	3.5	160	0.46	ND(0.25)	49	14	20	9.4	0.16	0.40	59	ND(0.50)	ND(0.25)	ND(0.50)	38	35
CHHSL		380	0.240	63,000	190	7.50	100,000	3,200	38,000	3,500	180	4,800	16,000	4,800	4,800	63.0	6,700	100,000

ND (0.25) = Not Detected at or above the indicated laboratory reporting limit

CHHSL = California Human Health Screening Levels - Soils (commercial/industrial land use only). January 2005

PLATES



0 1,000 2,000
Scale in Feet

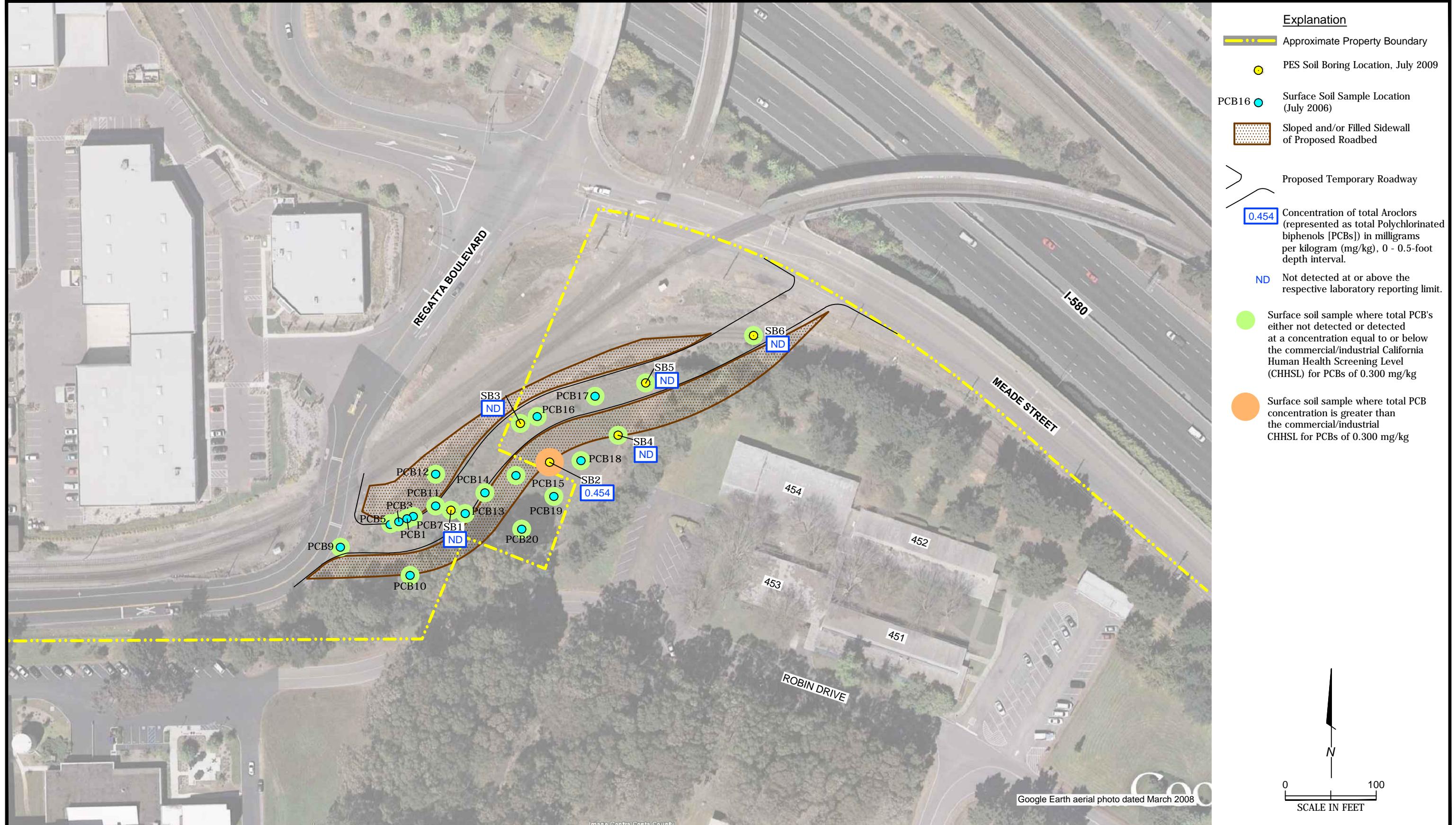
Google Earth aerial photo dated June 2007



PES Environmental, Inc.
Engineering & Environmental Services

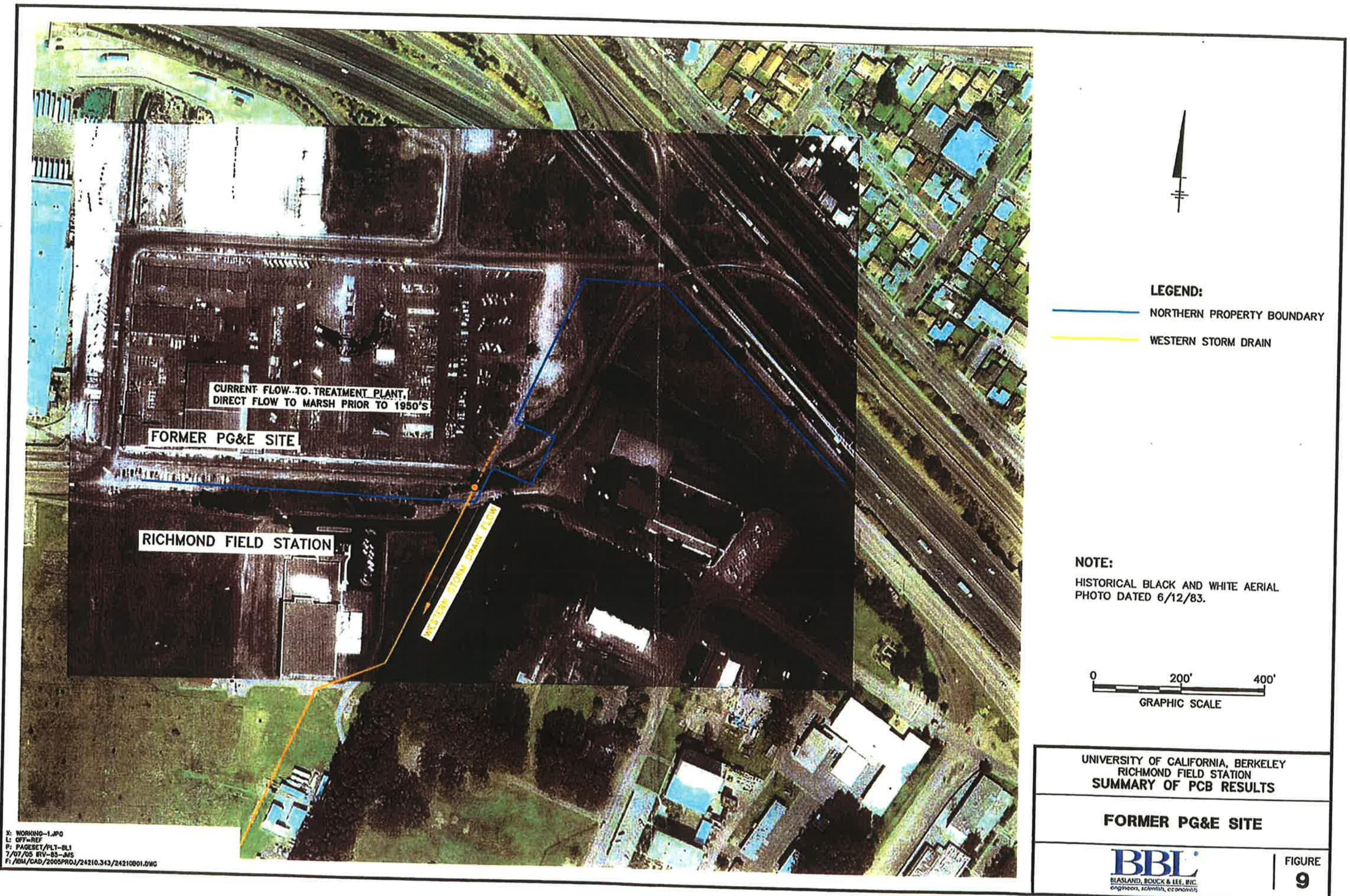
Site Location Map
Meade By-Pass, Pre-Construction Evaluation
Richmond, California

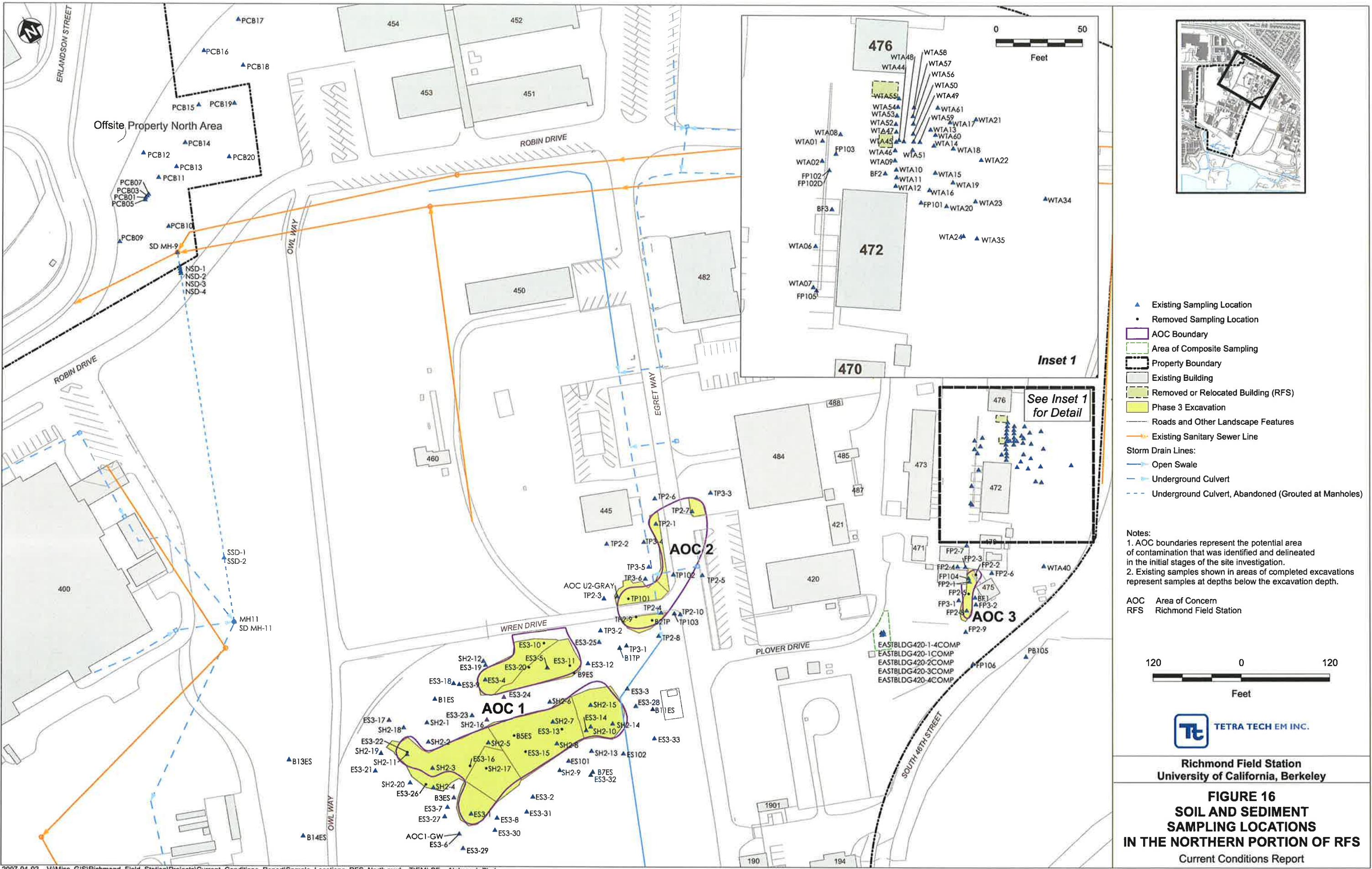
PLATE
1

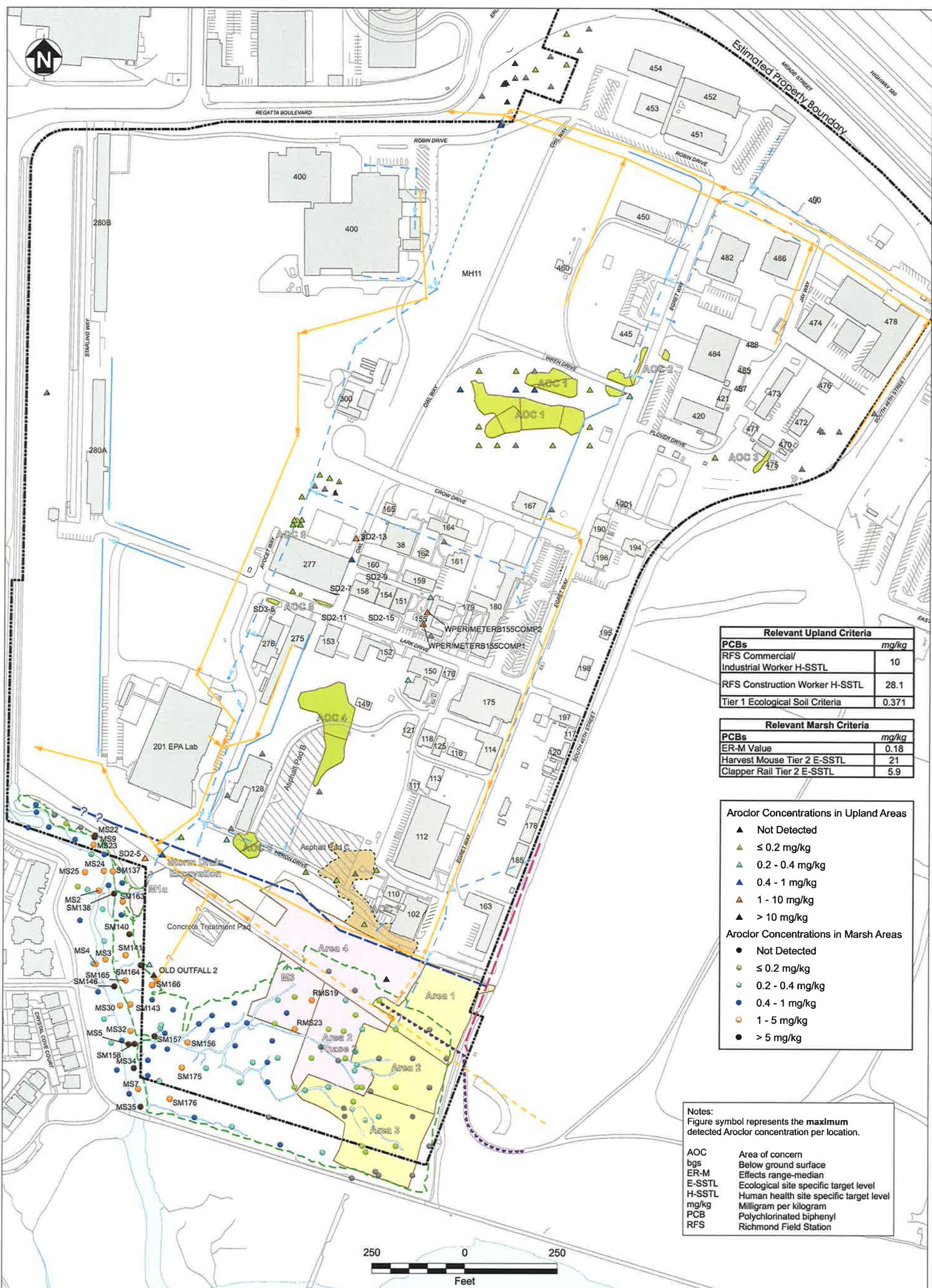


APPENDIX A

PERTINENT FIGURES AND TABLES FROM ENVIRONMENTAL REPORTS PREPARED BY OTHERS







TETRA TECH EM INC.

Richmond Field Station
University of California, Berkeley

FIGURE 32
PCB ANALYTICAL RESULTS
IN SOIL AND SEDIMENT,
0 TO 1 FEET BGS
Current Conditions Report

TABLE D-14
ANALYTICAL RESULT WITH SCREENING FOR PCBs IN SOIL AND SEDIMENT
UPLAND AREA
RICHMOND FIELD STATION

Location ID	Depth (Feet)	Date Collected	Total PCBs (mg/kg)	Aroclor-1016 (mg/kg)	Aroclor-1221 (mg/kg)	Aroclor-1232 (mg/kg)	Aroclor-1242 (mg/kg)	Aroclor-1248 (mg/kg)	Aroclor-1254 (mg/kg)	Aroclor-1260 (mg/kg)	Aroclor-1262 (mg/kg)
Commercial/Industrial SSTL				50.2	10	10	10	10	10	10	10
HD2-6	1.39 - 1.39	12/11/2002	ND	<.016	<.032	<.016	<.016	<.016	<.016	<.016	NA
	2.89 - 2.89	12/11/2002	ND	<.014	<.027	<.014	<.014	<.014	<.014	<.014	NA
HD2-7	.94 - .94	12/11/2002	ND	<.013	<.027	<.013	<.013	<.013	<.013	<.013	NA
	2.44 - 2.44	12/11/2002	ND	<.014	<.028	<.014	<.014	<.014	<.014	<.014	NA
HD2-8	1.26 - 1.26	12/11/2002	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
	2.76 - 2.76	12/11/2002	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
HD2-9	.79 - .79	12/11/2002	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
	2.29 - 2.29	12/11/2002	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
MF2-2	0 - 0	09/09/2002	.057	<.013	<.025	<.013	<.013	<.013	.033	.024	NA
MF2-3	0 - 0	09/09/2002	.149	<.013	<.025	<.013	<.013	<.013	.1	.049	NA
MF2-7	0 - 0	09/09/2002	.018	<.013	<.025	<.013	<.013	<.013	<.012	.018	NA
NP-1	.5 - .5	09/10/2002	ND	<.013	<.025	<.013	<.013	<.013	<.013	<.013	NA
NSD-1	No Depth	09/23/2004	.39	<.011	<.022	<.011	<.011	.39	<.011	<.011	NA
NSD-2	No Depth	09/23/2004	.18	<.011	<.022	<.011	<.011	.18	<.011	<.011	NA
NSD-3	No Depth	09/23/2004	.78	<.011	<.022	<.011	<.011	.78	<.011	<.011	NA
NSD-4	No Depth	09/23/2004	ND	<.011	<.022	<.011	<.011	<.011	<.011	<.011	NA
OW2-1	1.02 - 1.02	09/09/2002	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
	9.02 - 9.02	09/09/2002	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
PCB16	0 - .5	07/25/2006	.034	<.012	<.025	<.012	<.012	<.012	.034	<.012	NA
PCB17	0 - .5	07/25/2006	ND	<.012	<.025	<.012	<.012	<.012	<.012	<.012	NA
PCB18	0 - .5	07/25/2006	ND	<.013	<.025	<.013	<.013	<.013	<.013	<.013	NA
RFSTA-B12BSWALE-COMP	0 - 0	05/23/2006	ND	<.017	<.035	<.017	<.017	<.017	<.017	<.017	NA
SD MH-11	10 - 10.5	05/06/2004	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
	7 - 7.5	05/06/2004	ND	<.014	<.027	<.014	<.014	<.014	<.014	<.014	NA

TABLE D-17
ANALYTICAL RESULT WITH SCREENING FOR PCBs IN SOIL AND SEDIMENT
OFF-SITE PROPERTY NORTH AREA
RICHMOND FIELD STATION

Location ID	Depth (Feet)	Date Collected	Total PCBs (mg/kg)	Aroclor-1016 (mg/kg)	Aroclor-1221 (mg/kg)	Aroclor-1232 (mg/kg)	Aroclor-1242 (mg/kg)	Aroclor-1248 (mg/kg)	Aroclor-1254 (mg/kg)	Aroclor-1260 (mg/kg)	Aroclor-1262 (mg/kg)
PCB01	0 - .5	07/25/2006	ND	<.012	<.024	<.012	<.012	<.012	<.012	<.012	NA
	0 - 0	07/25/2006	ND	<.012	<.024	<.012	<.012	<.012	<.012	<.012	NA
PCB03	0 - .5	07/25/2006	ND	<.012	<.025	<.012	<.012	<.012	<.012	<.012	NA
	0 - 0	07/25/2006	ND	<.012	<.024	<.012	<.012	<.012	<.012	<.012	NA
PCB05	0 - .5	07/25/2006	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
	0 - 0	07/25/2006	ND	<.012	<.024	<.012	<.012	<.012	<.012	<.012	NA
PCB07	0 - .5	07/25/2006	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
	0 - 0	07/25/2006	ND	<.012	<.024	<.012	<.012	<.012	<.012	<.012	NA
PCB09	0 - .5	07/25/2006	ND	<.013	<.025	<.013	<.013	<.013	<.013	<.013	NA
PCB10	0 - .5	07/25/2006	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
PCB11	0 - .5	07/25/2006	.011	<.012	<.025	<.012	<.012	<.012	<.012	.011	NA
PCB12	0 - .5	07/25/2006	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
PCB13	0 - .5	07/25/2006	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA
PCB14	0 - .5	07/25/2006	.016	<.013	<.026	<.013	<.013	<.013	<.013	.016	NA
PCB15	0 - .5	07/25/2006	ND	<.012	<.025	<.012	<.012	<.012	<.012	<.012	NA
PCB19	0 - .5	07/25/2006	.028	<.013	<.025	<.013	<.013	<.013	<.013	.028	NA
PCB20	0 - .5	07/25/2006	ND	<.013	<.025	<.013	<.013	<.013	<.013	<.013	NA
SD MH-9	11 - 11.5	05/06/2004	ND	<.013	<.026	<.013	<.013	<.013	<.013	<.013	NA

Notes:

mg/kg Milligram per kilogram
NA Not available
< Nondetect
PCB Polychlorinated biphenyl

APPENDIX B

CONTRA COSTA COUNTY ENVIRONMENTAL HEALTH DEPARTMENT SOIL BORING PERMITS



**CONTRA COSTA
ENVIRONMENTAL HEALTH DIVISION**
2120 DIAMOND BOULEVARD, SUITE 200
CONCORD, CA 94520
(925) 692-2500
www.cocoeh.org



Well Permit

WP0013000

PR Number: 38497

PE Number: 4301

Date Received: 13 JULY 2009

Permit Number: 09B-1233

Permit Approved/Issued by:

Date Issued: 14 JULY 2009

Environmental Health Specialist

NEW WELL

(5) SOIL BORINGS

WELL ABANDONMENT

REPAIR

The issuance of this permit by Contra Costa County Environmental Health Division does not guarantee a satisfactory and an indefinite operation of any well. Permit expires in 180 calendar days from date of approval. Permits are non-transferable, and can be suspended or revoked. If more time is required for the project, a time extension may be granted if reasons warrant it in writing.

PROJECT SITE INFORMATION

Site Address: 1301 46TH ST, RICHMOND

APN: 560 060 008

Lot/Parcel #:

Subdivision #:

Minor Subdivision #:

DRILLER / CONSULTANT INFORMATION

Driller: VIRONEX, INC

Contact Person: ANGELA DAMANTI

Phone #: 925 521-1490

FAX#: 925 521-1494

Consultant: PES ENVIRONMENTAL

Contact Person: KYLE FLORY

Phone #: 415 899-1600

FAX#: 415 899-1601

LEGAL OWNER INFORMATION

Legal Owner Name: UC CALIFORNIA AT BERKELEY

Owner Address: 6701 SAN PABLO AVE, STE 5600

City/State/Zip: BERKELEY, CA 94720

Phone #: 510 643-2066

Alternate Phone #:

Prior to any drilling construction or destruction of a well, requests for inspection appointment must be received 24 to 48 hours in advance (excluding weekends and holidays) by faxing your written request to (925) 692-2504 or email to ehlu@hsd.cccounty.us. Voice mail messages are not acceptable.

Well drillers must possess a valid C-57 license and must have on file a performance bond of \$5,000.00 with Contra Costa County before commencing with any well construction, destruction or repairs.

WELL PERMIT CONDITIONS:

1. Proper annular seals and surface construction features are to be installed and required water analyses completed within 30 days of commencing drilling.
2. Monitoring well/soil boring shall be destroyed pursuant to County regulations within 30 days of completing monitoring activities.
3. Other: _____

Final Approval by: _____

Date: _____



**CONTRA COSTA
ENVIRONMENTAL HEALTH DIVISION**
2120 DIAMOND BOULEVARD, SUITE 200
CONCORD, CA 94520
(925) 692-2500
www.cocoeh.org



Well Permit

WP0013001

PR Number: 38498

PE Number: 4301

Date Received: 13 JULY 2009

Permit Number: 09B-1232

Permit Approved/Issued by:

Date Issued: 14 JULY 2009

Environmental Health Specialist

NEW WELL

(1) SOIL BORINGS

WELL ABANDONMENT

REPAIR

The issuance of this permit by Contra Costa County Environmental Health Division does not guarantee a satisfactory and an indefinite operation of any well. Permit expires in 180 calendar days from date of approval. Permits are non-transferable, and can be suspended or revoked. If more time is required for the project, a time extension may be granted if reasons warrant it in writing.

PROJECT SITE INFORMATION

Site Address: SYNDICATE AVE, RICHMOND

APN: 560 080 005

Lot/Parcel #:

Subdivision #:

Minor Subdivision #:

DRILLER / CONSULTANT INFORMATION

Driller: VIRONEX, INC

Contact Person: ANGELA DAMANTI

Phone #: 925 521-1490

FAX#: 925 521-1494

Consultant: PES ENVIRONMENTAL

Contact Person: KYLE FLORY

Phone #: 415 899-1600

FAX#: 415 899-1601

LEGAL OWNER INFORMATION

Legal Owner Name: CITY OF RICHMOND

Owner Address: 440 CIVIC CENTER PLAZA

City/State/Zip: RICHMOND, CA 94804

Phone #:

Alternate Phone #:

Prior to any drilling construction or destruction of a well, requests for inspection appointment must be received 24 to 48 hours in advance (excluding weekends and holidays) by faxing your written request to (925) 692-2504 or email to ehlu@hsd.cccounty.us. Voice mail messages are not acceptable.

Well drillers must possess a valid C-57 license and must have on file a performance bond of \$5,000.00 with Contra Costa County before commencing with any well construction, destruction or repairs.

WELL PERMIT CONDITIONS:

- Proper annular seals and surface construction features are to be installed and required water analyses completed within 30 days of commencing drilling.
- Monitoring well/soil boring shall be destroyed pursuant to County regulations within 30 days of completing monitoring activities.
- Other: _____

Final Approval by: _____

Date: _____

APPENDIX C

SOIL BORING LOGS

MAJOR DIVISIONS					TYPICAL NAMES	
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 15% FINES	GW		WELL-GRADED GRAVELS WITH OR WITHOUT SAND	
		GRAVELS WITH 15% OR MORE FINES	GP		Poorly-graded gravels with or without sand	
		CLEAN SANDS WITH LESS THAN 15% FINES	GM		SILTY GRAVELS WITH OR WITHOUT SAND	
		SANDS WITH 15% OR MORE FINES	GC		CLAYEY GRAVELS WITH OR WITHOUT SAND	
		CLEAN SANDS WITH LESS THAN 15% FINES	SW		WELL-GRADED SANDS WITH OR WITHOUT GRAVEL	
	SANDS MORE THAN HALF COARSE FRACTION IS FINER THAN NO. 4 SIEVE SIZE	SANDS WITH 15% OR MORE FINES	SP		POORLY-GRADED SANDS WITH OR WITHOUT GRAVEL	
		CLEAN SANDS WITH LESS THAN 15% FINES	SM		SILTY SANDS WITH OR WITHOUT GRAVEL	
		SANDS WITH 15% OR MORE FINES	SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL	
		SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	ML		INORGANIC SILTS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
		SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE		SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	OL		ORGANIC SILTS OR CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
		SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	MH		INORGANIC SILTS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
		SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	CH		INORGANIC CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
		HIGHLY ORGANIC SOILS	OH		ORGANIC SILTS OR CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL	
		HIGHLY ORGANIC SOILS	PT		PEAT AND OTHER HIGHLY ORGANIC SOILS	

ABBREVIATION KEY

SYMBOLS KEY

PID (PPM)	- Photo Ionization Detector readings in parts per million from field headspace sample screening.	<input type="checkbox"/> - No Soil Sample Recovered
BLOWS/6IN	- Blows required to drive sampler 6 inches as indicated on the logs using sample drive hammer weight of 140 pounds falling 30 inches.	<input checked="" type="checkbox"/> - Partial Soil Sample Recovered
(10,60,30)	- Percent gravel, percent sand, percent silt/clay	<input checked="" type="checkbox"/> - Undisturbed Soil Sample Recovered
2.5YR 6/2	- Soil Color according to Munsell Soil Color Charts (1994 Revised Edition)	<input type="checkbox"/> - Soil Sample Submitted for Laboratory Analysis
feet MSL	- feet above Mean Sea Level	<input type="checkbox"/> - Hydropunch Sample
feet BGS	- feet below ground surface	<input type="checkbox"/> - First Encountered Groundwater Level
		<input type="checkbox"/> - Piezometric Groundwater level



PES Environmental, Inc.
Engineering & Environmental Services

644.014.01.003

USCS Chart

JOB NUMBER

DRAWING NUMBER

KSF

REVIEWED BY

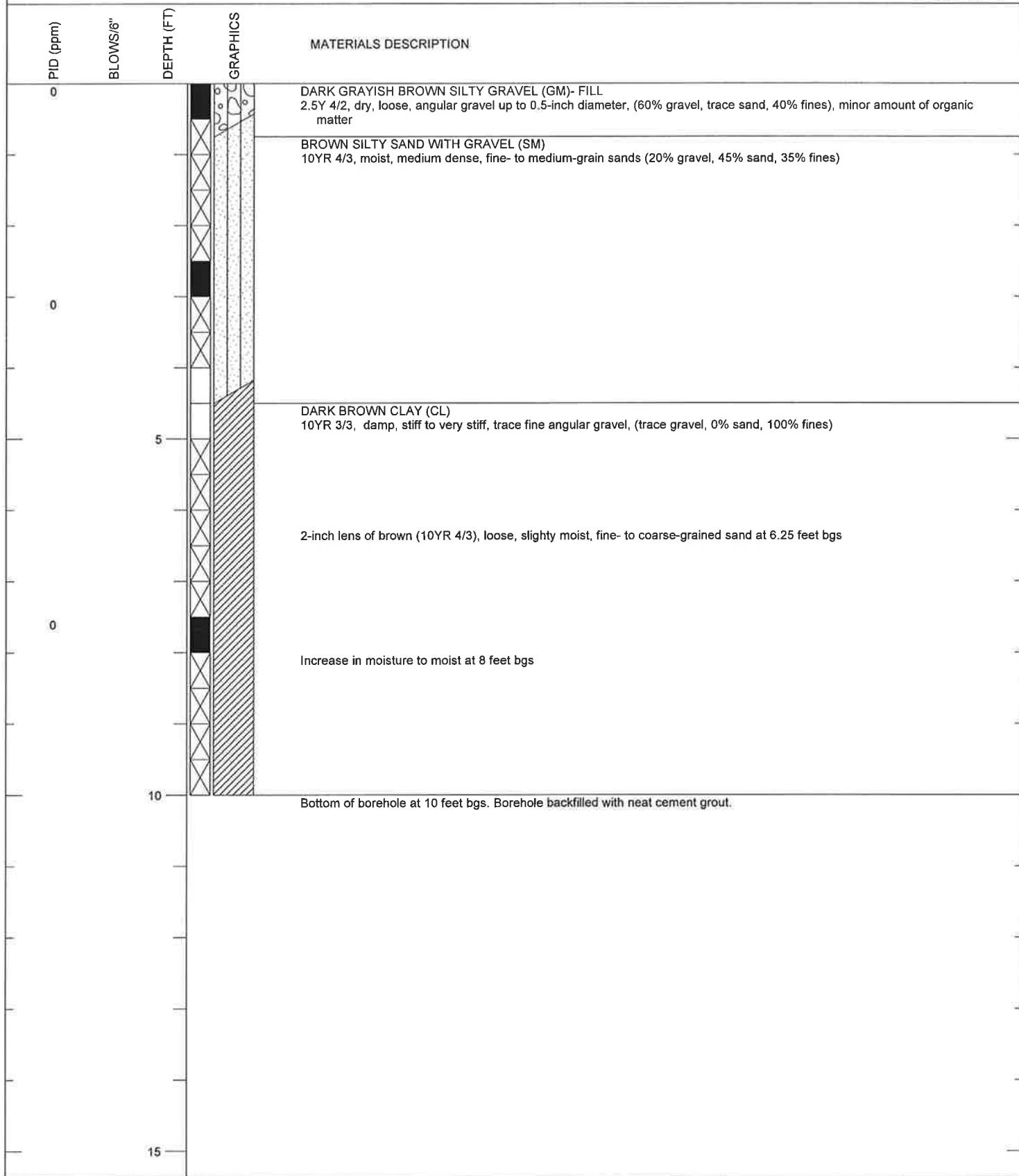
Unified Soil Classification System Chart
Meade Street By-Pass
Richmond, California

PLATE

C-0

09/09

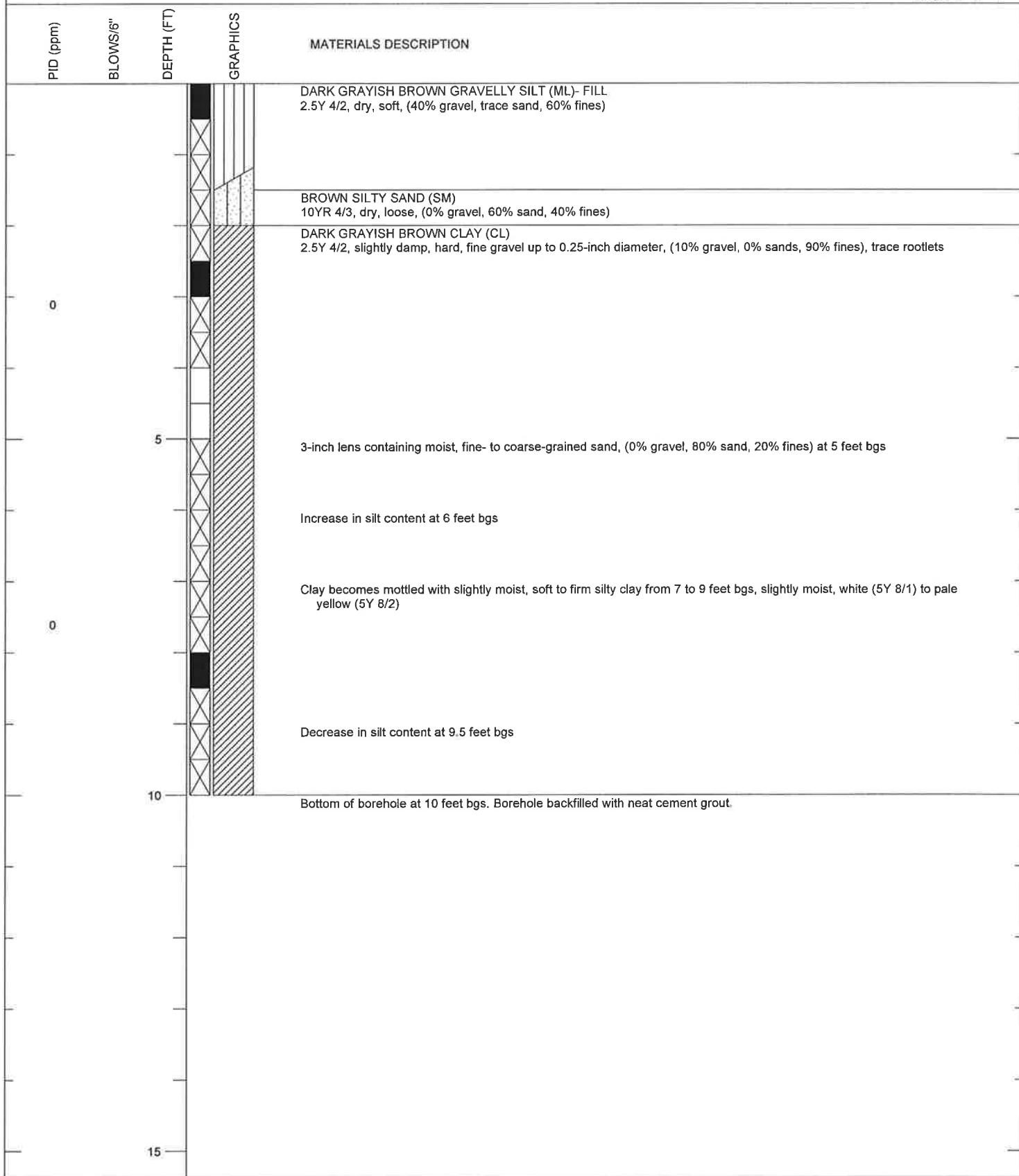
DATE



PROJECT Meade Street By-Pass
LOCATION Richmond, California
JOB NUMBER 644.014.01.003
GEOLOGIST/ENGINEER Chris Baldassari
DRILL RIG 6610 DT Geoprobe

DIAMETER OF HOLE 2 inches
TOTAL DEPTH OF HOLE 10 feet
DATE STARTED 7/23/09
DATE COMPLETED 7/23/09

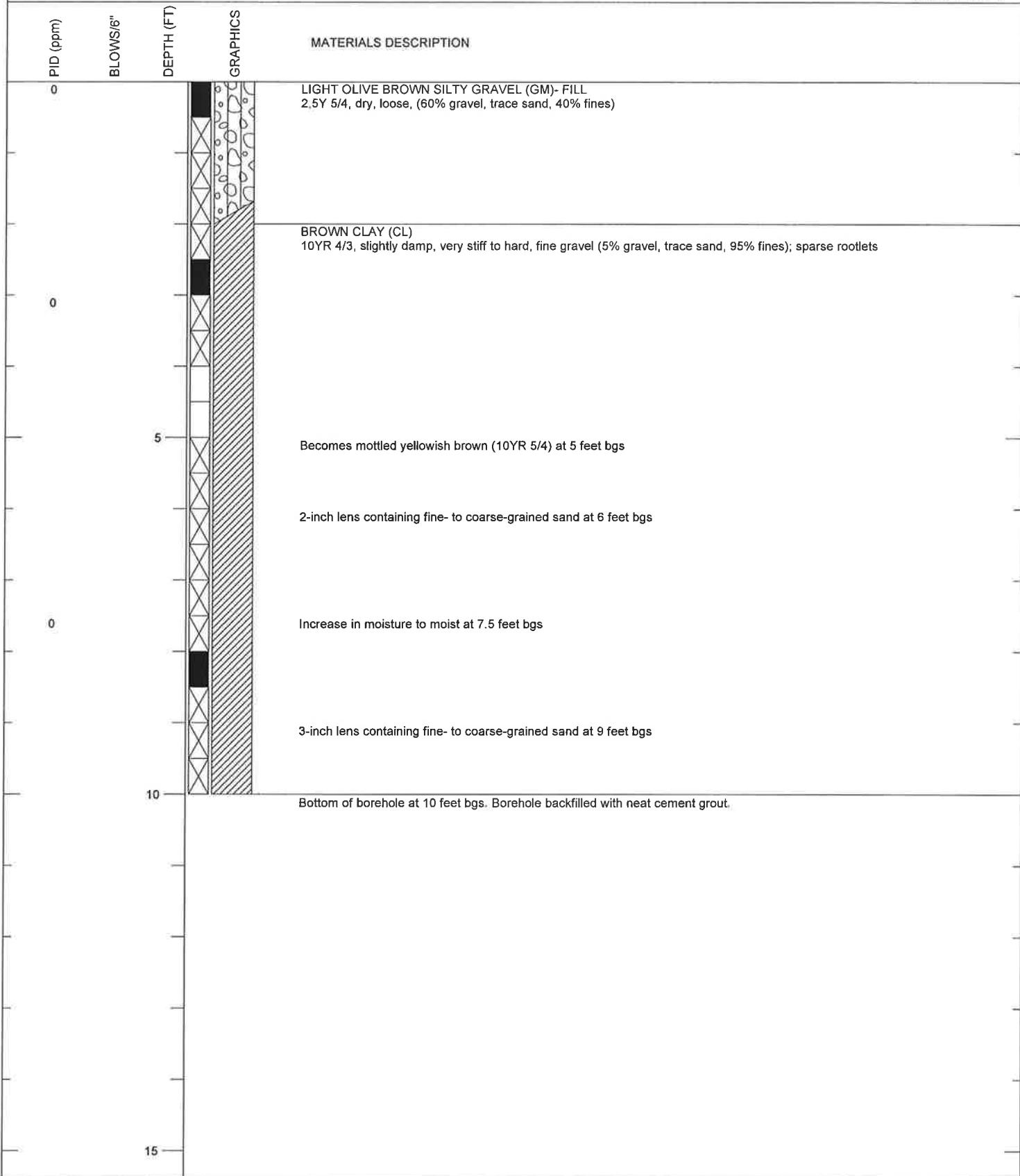
PLATE
C-1



PROJECT Meade Street By-Pass
LOCATION Richmond, California
JOB NUMBER 644.014.01.003
GEOLOGIST/ENGINEER Chris Baldassari
DRILL RIG 6610 DT Geoprobe

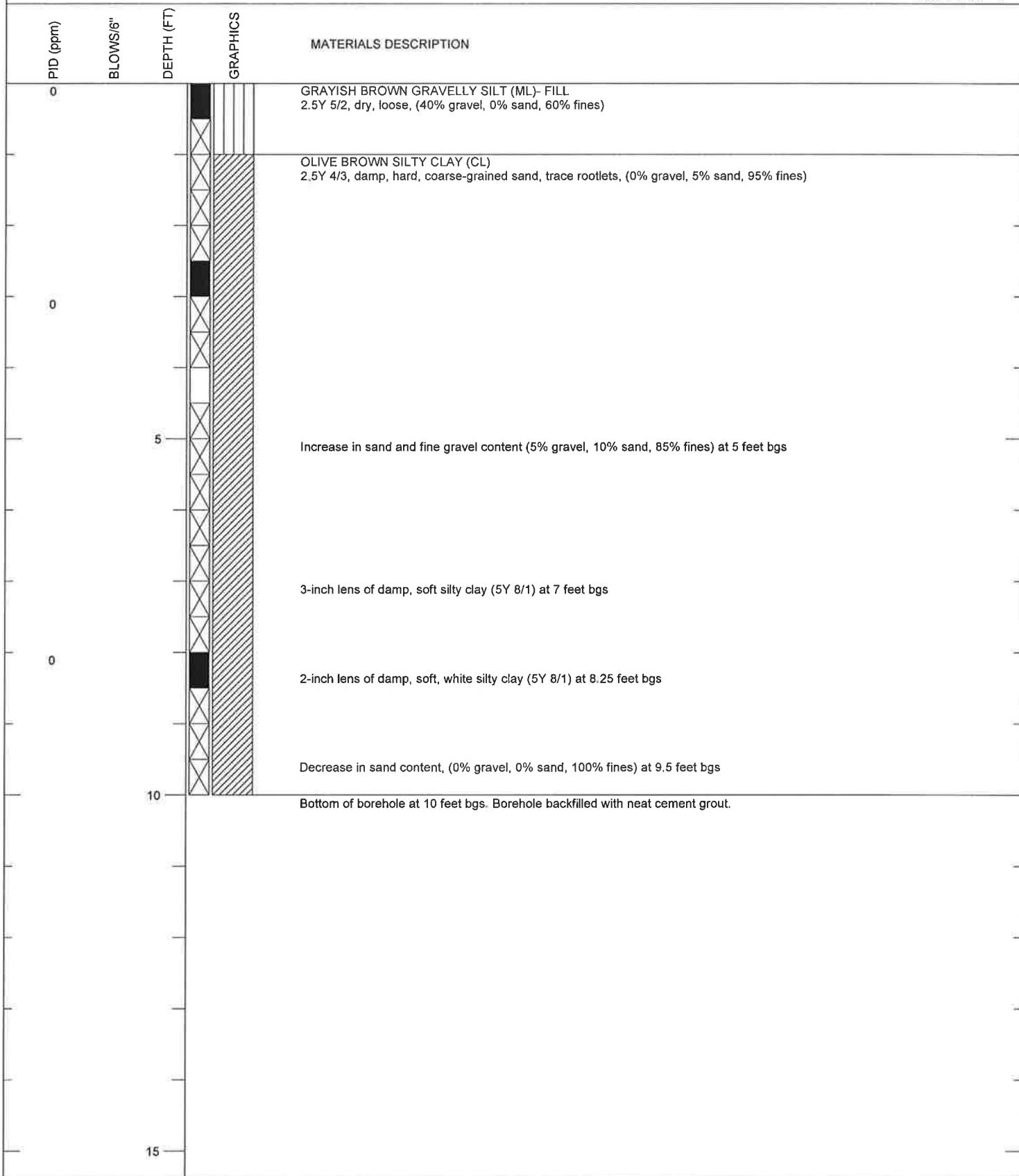
DIAMETER OF HOLE 2 inches
TOTAL DEPTH OF HOLE 10 feet
DATE STARTED 7/23/09
DATE COMPLETED 7/23/09

PLATE
C-2



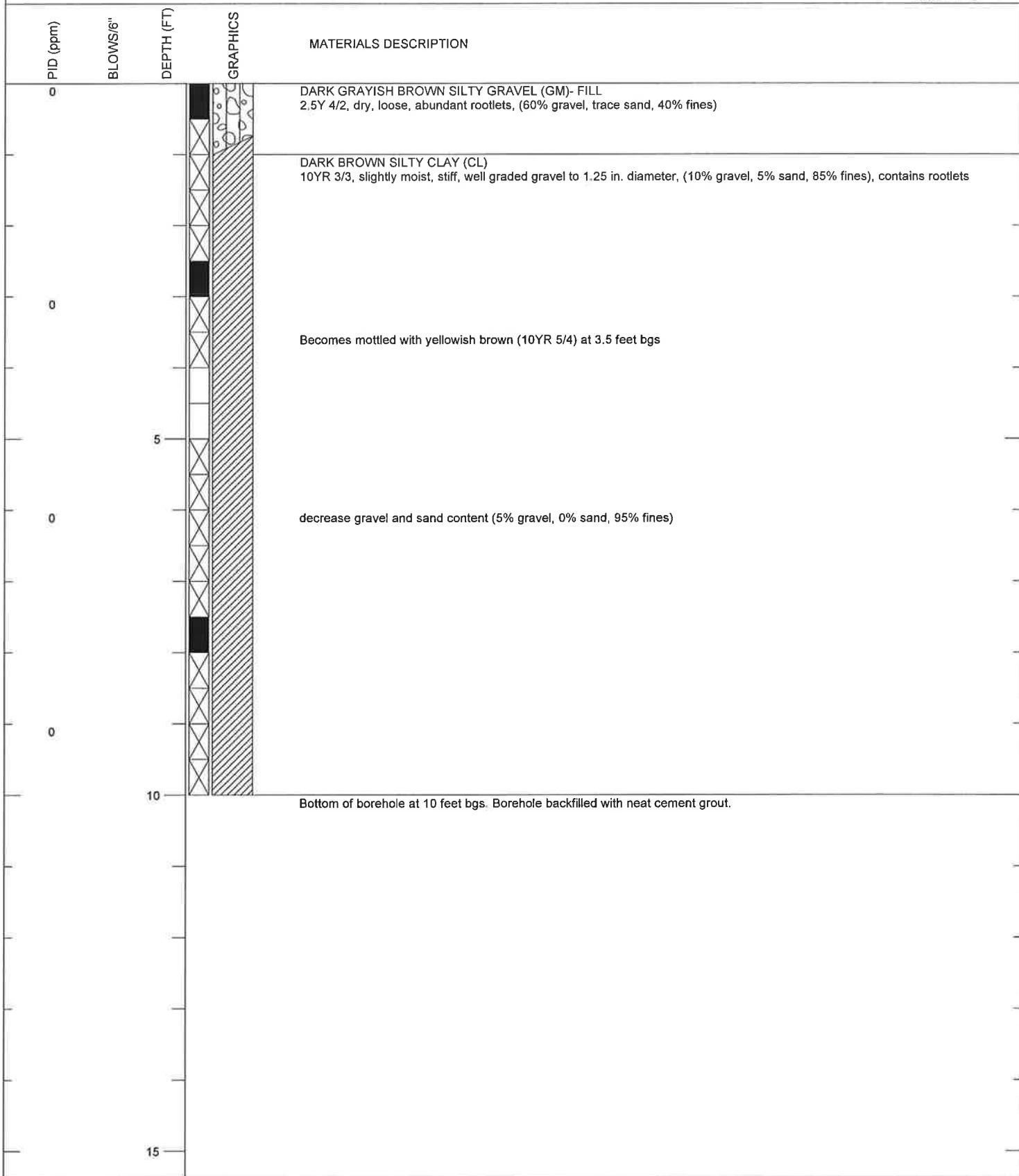
PROJECT	Meade Street By-Pass	DIAMETER OF HOLE	2 inches
LOCATION	Richmond, California	TOTAL DEPTH OF HOLE	10 feet
JOB NUMBER	644.014.01.003	DATE STARTED	7/23/09
GEOLOGIST/ENGINEER	Chris Baldassari	DATE COMPLETED	7/23/09
DRILL RIG	6610 DT Geoprobe		

**PLATE
C-3**



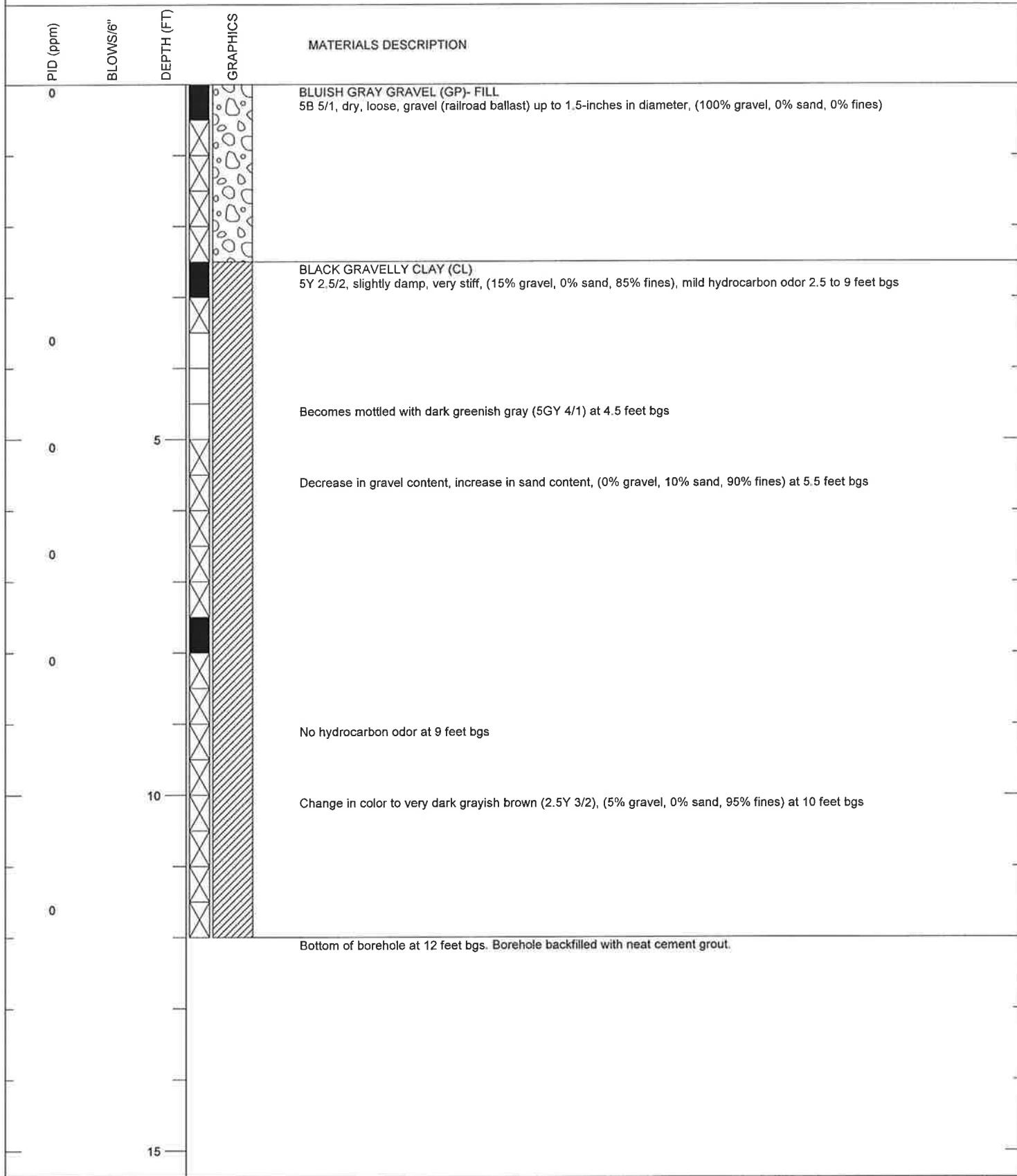
PROJECT	Meade Street By-Pass	DIAMETER OF HOLE	2 inches
LOCATION	Richmond, California	TOTAL DEPTH OF HOLE	10 feet
JOB NUMBER	644.014.01.003	DATE STARTED	7/23/09
GEOLOGIST/ENGINEER	Chris Baldassari	DATE COMPLETED	7/23/09
DRILL RIG	6610 DT Geoprobe		

PLATE
C-4



PROJECT	Meade Street By-Pass	DIAMETER OF HOLE	2 inches
LOCATION	Richmond, California	TOTAL DEPTH OF HOLE	10 feet
JOB NUMBER	644.014.01.003	DATE STARTED	7/23/09
GEOLOGIST/ENGINEER	Chris Baldassari	DATE COMPLETED	7/23/09
DRILL RIG	6610 DT Geoprobe		

PLATE
C-5



PROJECT LOCATION	Meade Street By-Pass Richmond, California
JOB NUMBER	644.014.01.003
GEOLOGIST/ENGINEER	Chris Baldassari
DRILL RIG	6610 DT Geoprobe

DIAMETER OF HOLE	2 inches
TOTAL DEPTH OF HOLE	12 feet
DATE STARTED	7/23/09
DATE COMPLETED	7/23/09

**PLATE
C-6**

APPENDIX D

SOIL BORING GPS COORDINATES

Easting	Northing	Sample ID	Date of Collection	Corr Type	Rcvr Type	GPS Date	GPS Time	Feat Name	GPS Height	Vert Prec	Horz Prec	Std Dev	Point_ID
6465380.968	1732324.403	sb1	21-Aug-09	Postprocessed Carrier Float	GeoXH 2008	21-Aug-09	00-Jan-00	Soil Boring	31.12206848	1.073406907	0.803417124	0	1
6465474.589	1732377.718	sb2	21-Aug-09	Postprocessed Carrier Float	GeoXH 2008	21-Aug-09	00-Jan-00	Soil Boring	29.0284325	0.35338633	0.353386283	0.052616366	2
6465453.414	1732425.543	sb3	21-Aug-09	Postprocessed Carrier Float	GeoXH 2008	21-Aug-09	00-Jan-00	Soil Boring	28.63191863	0.351017316	0.356043166	0.224808714	3
6465554.579	1732402.65	sb4	21-Aug-09	Postprocessed Carrier Float	GeoXH 2008	21-Aug-09	00-Jan-00	Soil Boring	31.77271466	1.187108438	0.911609181	1.15918E-09	4
6465571.783	1732463.73	sb5	21-Aug-09	Postprocessed Carrier Float	GeoXH 2008	21-Aug-09	00-Jan-00	Soil Boring	33.48176167	0.998330183	0.789975733	1.15918E-09	5
6465704.041	1732524.661	sb6	21-Aug-09	Postprocessed Carrier Float	GeoXH 2008	21-Aug-09	00-Jan-00	Soil Boring	37.77854693	0.353543234	0.361992373	0.10756299	6

APPENDIX E

LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION – SOIL MATRIX AND WASTE CHARACTERIZATION SAMPLES

(PROVIDED ON COMPACT DISK)

SOIL SAMPLE RESULTS



Curtis & Tompkins, Ltd.

Analytical Laboratories, Since 1878



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

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

**Laboratory Job Number 213721
ANALYTICAL REPORT**

PES Environmental, Inc.
1682 Novato Boulevard
Novato, CA 94947

Project : 644.014.01.003
Location : Meade St, RFS, Richmond
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
SB1-0-0.5	213721-001
SB1-2.5	213721-002
SB1-7.5	213721-003

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 signatures. 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: *Sara Blaeker*
Project Manager

Date: 08/11/2009

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 213721
Client: PES Environmental, Inc.
Project: 644.014.01.003
Location: Meade St, RFS, Richmond
Request Date: 07/23/09
Samples Received: 07/23/09

This data package contains sample and QC results for three soil samples, requested for the above referenced project on 07/23/09. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):

High recovery was observed for diesel C10-C24 in the MSD for batch 153250; the parent sample was not a project sample, and the LCS was within limits. High RPD was also observed for diesel C10-C24 in the MS/MSD for batch 153250. No other analytical problems were encountered.

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

No analytical problems were encountered.

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

No analytical problems were encountered.

Pesticides (EPA 8081B):

All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. All samples underwent florisil cleanup using EPA Method 3620C. No analytical problems were encountered.

PCBs (EPA 8082):

All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. Low surrogate recoveries were observed for decachlorobiphenyl in the MS/MSD of WC-RRA-072309 (lab # 213714-002); the corresponding TCMX surrogate recoveries were within limits. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):

No analytical problems were encountered.

Chlorophenoxy Herbicides (EPA 8151):

Cal Science in Garden Grove, CA performed the analysis. Please see the Cal Science case narrative.



PE Environmental, Inc.
Engineering & Environmental Services

LABORATOR

JOB NUMBER: 644 014 01 003

JOB NUMBER: 044014000

NAME / LOCATION: Mead St, KTS, Keweenaw Co

PROJECT MANAGER: KSF

CHAIN OF CUSTODY RECORD

Z1372

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

LABORATORY: Curtis & Rankin

JOB NUMBER: 844014000

NAME / LOCATION: Meadle St, RFS, Richmond &

PROJECT MANAGER: KSF

SAMPLERS

CJB

RECORDER: WJS

ANALYSIS REQUESTED

NOTES		CHAIN OF CUSTODY RECORD					
Turn Around Time:	Standard AS, use sterilized clamp on TAHmo	RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
		<i>JMB</i>	<i>Pat Langley</i>		<i>7/24</i>	<i>2:55</i>	
		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
		DISPATCHED BY: (Signature)	DATE	TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
	METHOD OF SHIPMENT:	<i>JMB hands at lab</i>					

COOLER RECEIPT CHECKLIST



Login # 213721 Date Received 7/23/09 Number of coolers 1
 Client RES Project HIRE A DR ST. RPS
 Date Opened 7/23/09 By (print) M. VILLONWELL (sign) M. J. Dele
 Date Logged in V By (print) V (sign) V

1. Did cooler come with a shipping slip (airbill, etc) _____ YES NO
 Shipping info _____

2A. Were custody seals present? ... YES (circle) on cooler on samples NO
 How many _____ Name _____ Date _____

2B. Were custody seals intact upon arrival? _____ YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. 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? YES NO

If YES, what time were they transferred to freezer? 1715

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES NO

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles >6mm absent in VOA samples? YES NO N/A

16. Was the client contacted concerning this sample delivery? YES NO

If YES, Who was called? _____ By _____ Date: _____

COMMENTS

SAMPLES SPLIT OFF FOR 8151

Total Extractable Hydrocarbons

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	153250
Units:	mg/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/27/09

Field ID: SB1-0-0.5 Analyzed: 07/29/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213721-001

Analyte	Result	RL
Diesel C10-C24	3.8 Y	0.99
Motor Oil C24-C36	9.1	5.0

Surrogate	%REC	Limits
o-Terphenyl	82	53-133

Field ID: SB1-2.5 Analyzed: 07/29/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213721-002

Analyte	Result	RL
Diesel C10-C24	3.9 Y	1.0
Motor Oil C24-C36	8.5	5.0

Surrogate	%REC	Limits
o-Terphenyl	80	53-133

Field ID: SB1-7.5 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213721-003

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

Surrogate	%REC	Limits
o-Terphenyl	74	53-133

Type: BLANK Analyzed: 07/27/09
 Lab ID: QC505051 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	80	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected

RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC505052	Batch#:	153250
Matrix:	Soil	Prepared:	07/27/09
Units:	mg/Kg	Analyzed:	07/28/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.69	41.42	83	52-128

Surrogate	%REC	Limits
o-Terphenyl	76	53-133

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	153250
MSS Lab ID:	213681-001	Sampled:	07/20/09
Matrix:	Soil	Received:	07/22/09
Units:	mg/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
 Lab ID: QC505053

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	58.73	49.52	87.13	57	33-145

Surrogate	%REC	Limits
o-Terphenyl	80	53-133

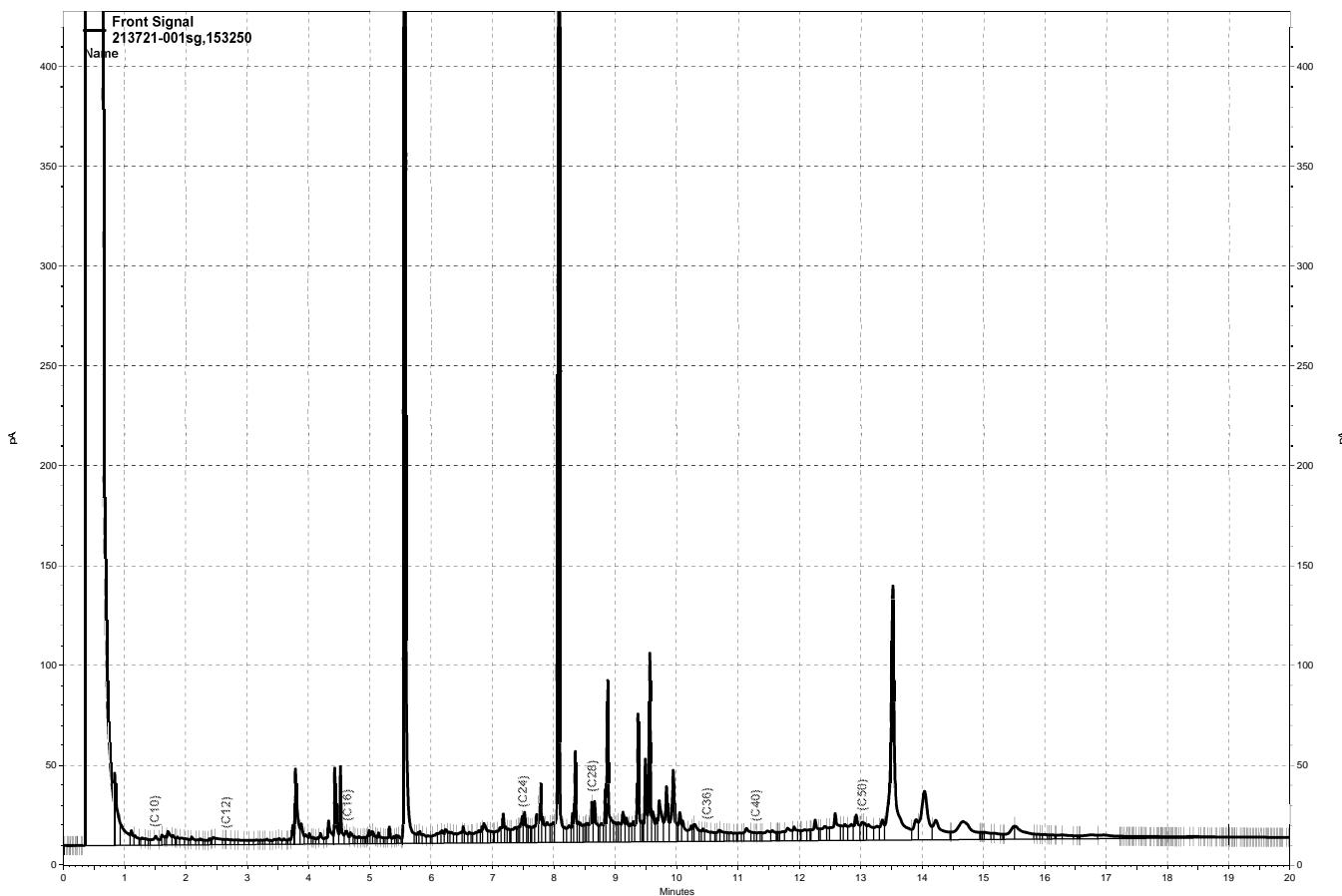
Type: MSD Cleanup Method: EPA 3630C
 Lab ID: QC505054

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.68	148.0	180 *	33-145	52 *	44

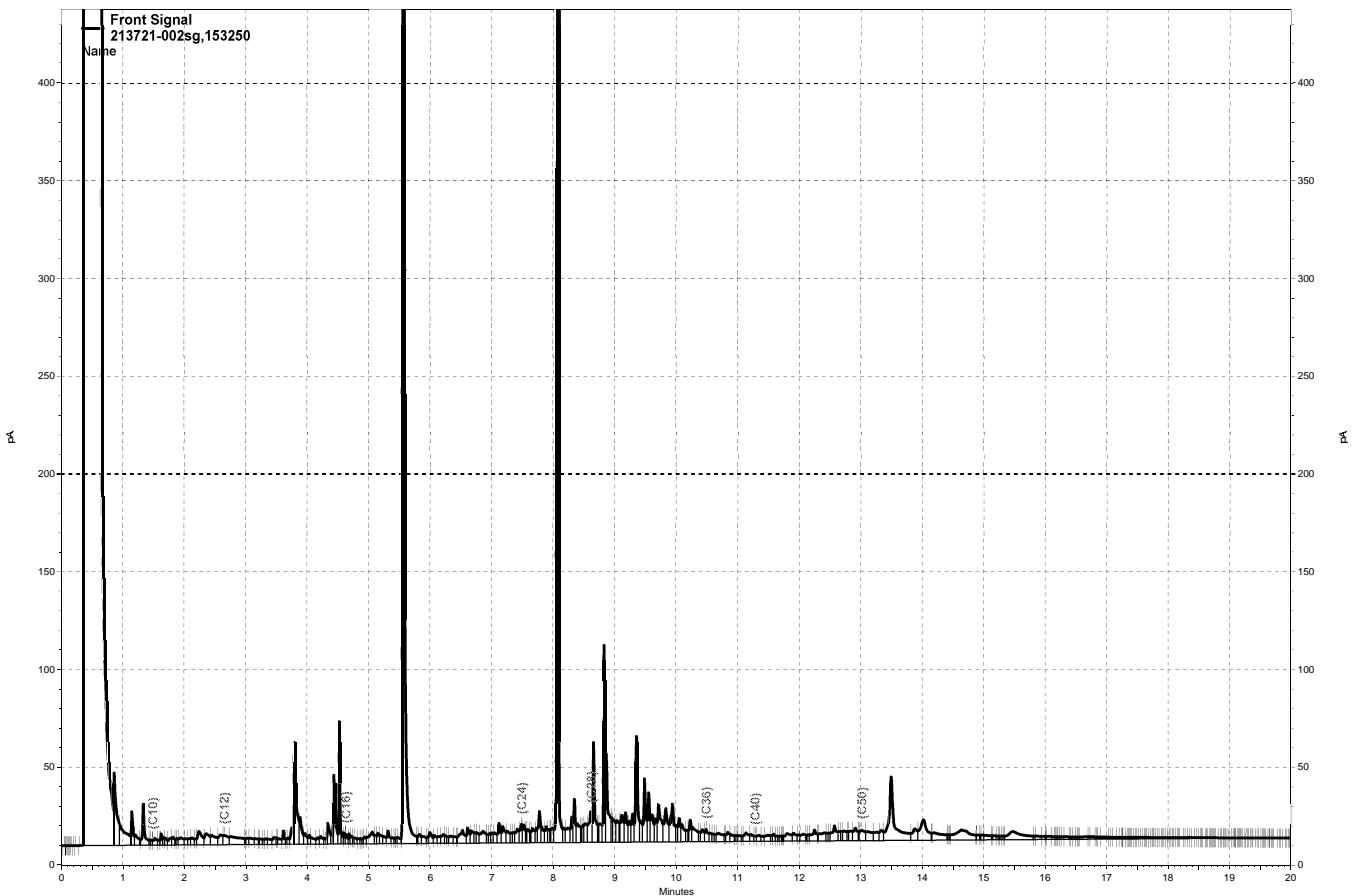
Surrogate	%REC	Limits
o-Terphenyl	106	53-133

*= Value outside of QC limits; see narrative

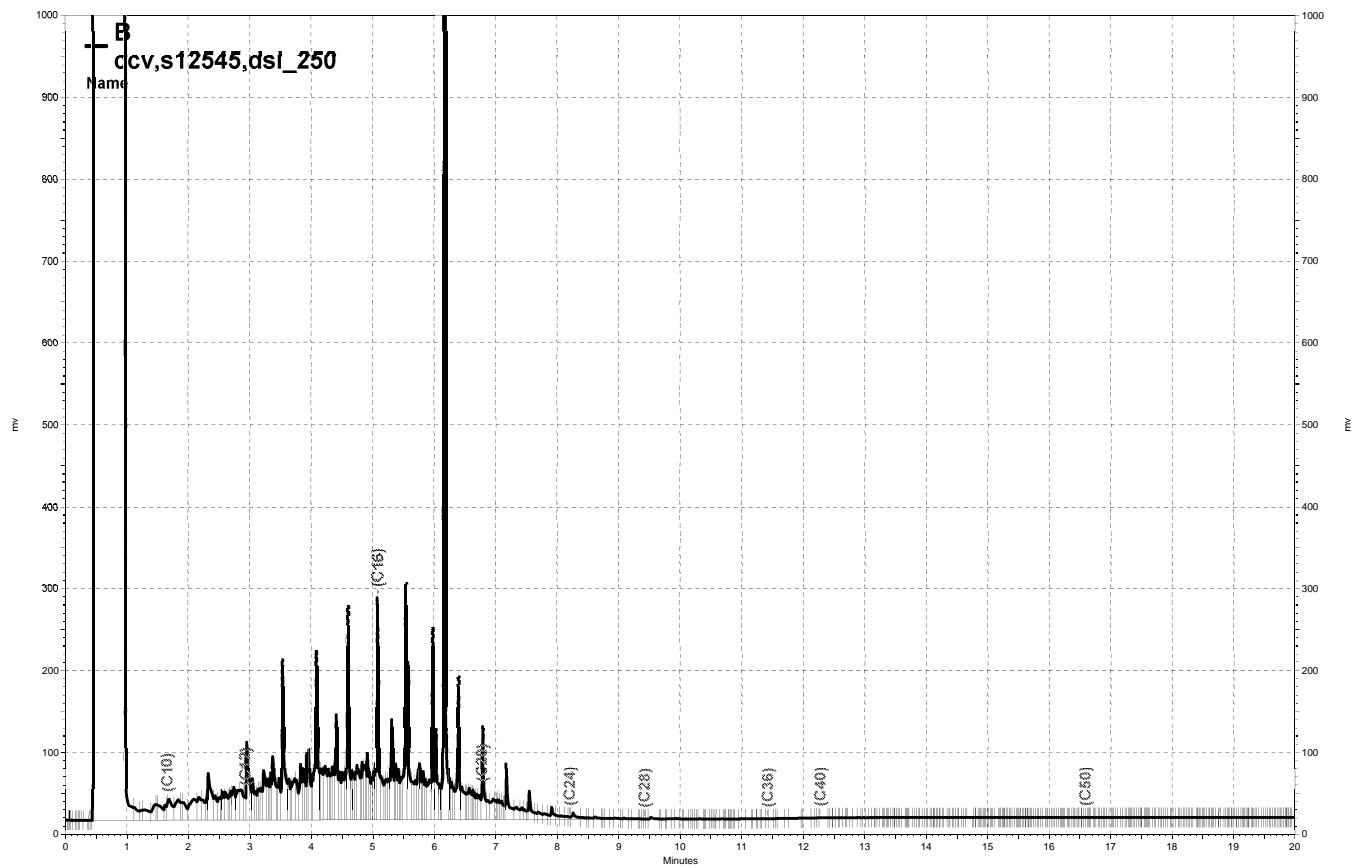
RPD= Relative Percent Difference



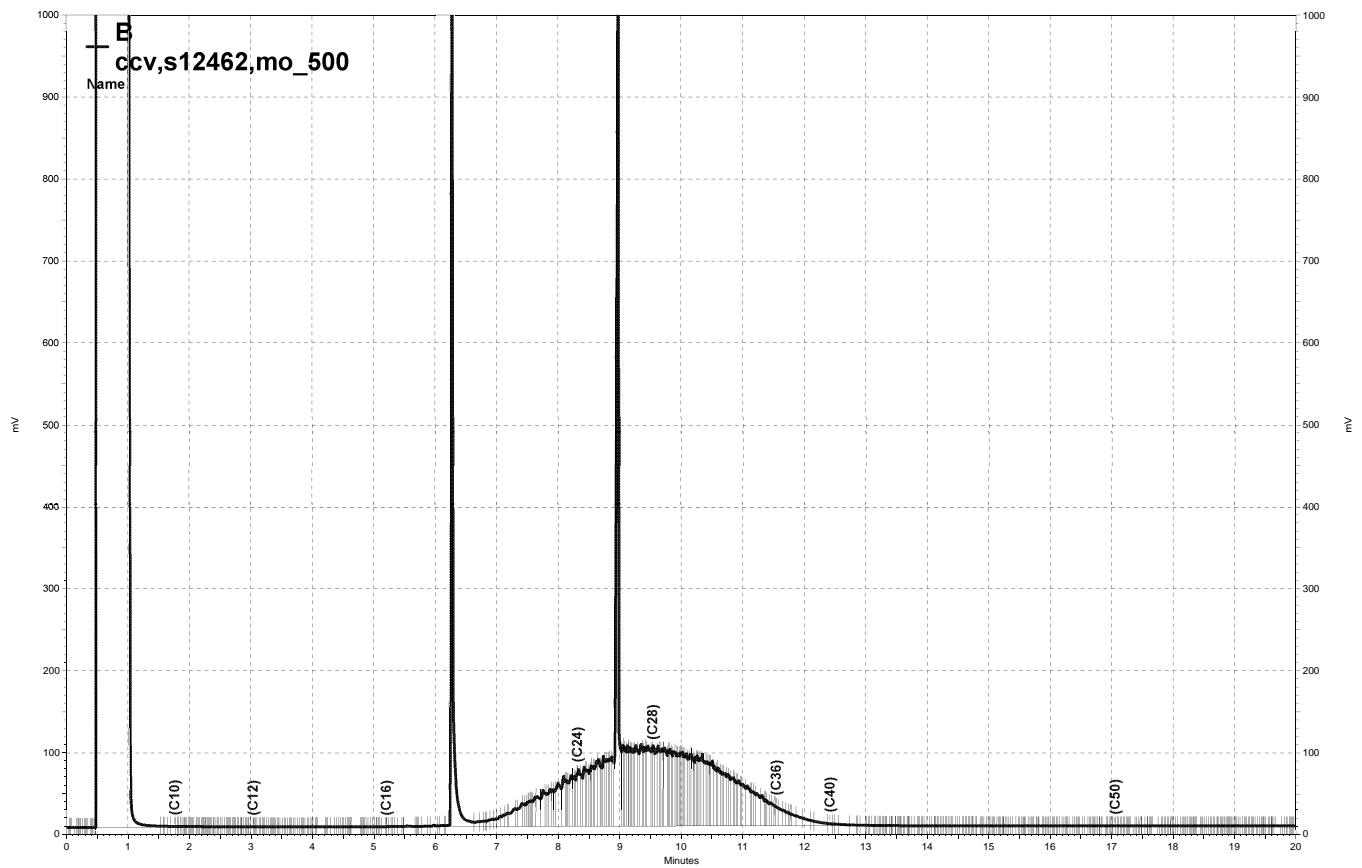
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— \\Lims\\gdrive\\ezchrom\\Projects\\GC15B\\Data\\209b003, B



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Purgeable Organics by GC/MS

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB1-2.5	Diln Fac:	0.9276
Lab ID:	213721-002	Batch#:	153248
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	9.3
Chloromethane	ND	9.3
Vinyl Chloride	ND	9.3
Bromomethane	ND	9.3
Chloroethane	ND	9.3
Trichlorofluoromethane	ND	4.6
Acetone	ND	19
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.6
MTBE	ND	4.6
trans-1,2-Dichloroethene	ND	4.6
Vinyl Acetate	ND	46
1,1-Dichloroethane	ND	4.6
2-Butanone	ND	9.3
cis-1,2-Dichloroethene	ND	4.6
2,2-Dichloropropane	ND	4.6
Chloroform	ND	4.6
Bromochloromethane	ND	4.6
1,1,1-Trichloroethane	ND	4.6
1,1-Dichloropropene	ND	4.6
Carbon Tetrachloride	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Trichloroethene	ND	4.6
1,2-Dichloropropane	ND	4.6
Bromodichloromethane	ND	4.6
Dibromomethane	ND	4.6
4-Methyl-2-Pentanone	ND	9.3
cis-1,3-Dichloropropene	ND	4.6
Toluene	ND	4.6
trans-1,3-Dichloropropene	ND	4.6
1,1,2-Trichloroethane	ND	4.6
2-Hexanone	ND	9.3
1,3-Dichloropropane	ND	4.6
Tetrachloroethene	ND	4.6

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB1-2.5	Diln Fac:	0.9276
Lab ID:	213721-002	Batch#:	153248
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Dibromochloromethane	ND	4.6
1,2-Dibromoethane	ND	4.6
Chlorobenzene	ND	4.6
1,1,1,2-Tetrachloroethane	ND	4.6
Ethylbenzene	ND	4.6
m,p-Xylenes	ND	4.6
o-Xylene	ND	4.6
Styrene	ND	4.6
Bromoform	ND	4.6
Isopropylbenzene	ND	4.6
1,1,2,2-Tetrachloroethane	ND	4.6
1,2,3-Trichloropropane	ND	4.6
Propylbenzene	ND	4.6
Bromobenzene	ND	4.6
1,3,5-Trimethylbenzene	ND	4.6
2-Chlorotoluene	ND	4.6
4-Chlorotoluene	ND	4.6
tert-Butylbenzene	ND	4.6
1,2,4-Trimethylbenzene	ND	4.6
sec-Butylbenzene	ND	4.6
para-Isopropyl Toluene	ND	4.6
1,3-Dichlorobenzene	ND	4.6
1,4-Dichlorobenzene	ND	4.6
n-Butylbenzene	ND	4.6
1,2-Dichlorobenzene	ND	4.6
1,2-Dibromo-3-Chloropropane	ND	4.6
1,2,4-Trichlorobenzene	ND	4.6
Hexachlorobutadiene	ND	4.6
Naphthalene	ND	4.6
1,2,3-Trichlorobenzene	ND	4.6

Surrogate	%REC	Limits
Dibromofluoromethane	101	71-128
1,2-Dichloroethane-d4	95	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	100	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB1-7.5	Diln Fac:	0.9901
Lab ID:	213721-003	Batch#:	153248
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	9.9
Chloromethane	ND	9.9
Vinyl Chloride	ND	9.9
Bromomethane	ND	9.9
Chloroethane	ND	9.9
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	9.9
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	9.9
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	9.9
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB1-7.5	Diln Fac:	0.9901
Lab ID:	213721-003	Batch#:	153248
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

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	105	71-128
1,2-Dichloroethane-d4	93	69-135
Toluene-d8	98	80-120
Bromofluorobenzene	96	77-131

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Purgeable Organics by GC/MS

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505046	Batch#:	153248
Matrix:	Soil	Analyzed:	07/27/09
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 #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505046	Batch#:	153248
Matrix:	Soil	Analyzed:	07/27/09
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	98	71-128
1,2-Dichloroethane-d4	102	69-135
Toluene-d8	99	80-120
Bromofluorobenzene	95	77-131

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC505047	Batch#:	153248
Matrix:	Soil	Analyzed:	07/27/09
Units:	ug/Kg		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	26.90	108	73-135
Benzene	25.00	26.24	105	80-125
Trichloroethene	25.00	27.76	111	80-127
Toluene	25.00	26.26	105	80-126
Chlorobenzene	25.00	26.06	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	71-128
1,2-Dichloroethane-d4	97	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	91	77-131

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Diln Fac:	500.0
MSS Lab ID:	213737-003	Batch#:	153248
Matrix:	Miscell.	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/24/09
Basis:	as received	Analyzed:	07/27/09

Type: MS Lab ID: QC505101

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<500.0	25,000	29,420	118	58-145
Benzene	<500.0	25,000	28,150	113	56-126
Trichloroethene	<500.0	25,000	29,250	117	50-142
Toluene	589.6	25,000	29,470	116	52-125
Chlorobenzene	<500.0	25,000	25,050	100	46-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	71-128
1,2-Dichloroethane-d4	89	69-135
Toluene-d8	101	80-120
Bromofluorobenzene	94	77-131
Trifluorotoluene (MeOH)	105	56-147

Type: MSD Lab ID: QC505102

Analyte	Spiked	Result	%REC	Limits	RPD Lim
1,1-Dichloroethene	25,000	29,070	116	58-145	1 28
Benzene	25,000	27,370	109	56-126	3 26
Trichloroethene	25,000	29,360	117	50-142	0 29
Toluene	25,000	28,390	111	52-125	4 29
Chlorobenzene	25,000	24,880	100	46-120	1 29

Surrogate	%REC	Limits
Dibromofluoromethane	101	71-128
1,2-Dichloroethane-d4	88	69-135
Toluene-d8	100	80-120
Bromofluorobenzene	92	77-131
Trifluorotoluene (MeOH)	102	56-147

RPD= Relative Percent Difference

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Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB1-0-0.5	Batch#:	153266
Lab ID:	213721-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	670
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB1-0-0.5	Batch#:	153266
Lab ID:	213721-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	68	35-120
Phenol-d5	68	37-120
2,4,6-Tribromophenol	62	30-120
Nitrobenzene-d5	62	47-120
2-Fluorobiphenyl	63	52-120
Terphenyl-d14	65	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB1-2.5	Batch#:	153266
Lab ID:	213721-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	670
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB1-2.5	Batch#:	153266
Lab ID:	213721-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	70	35-120
Phenol-d5	70	37-120
2,4,6-Tribromophenol	71	30-120
Nitrobenzene-d5	62	47-120
2-Fluorobiphenyl	64	52-120
Terphenyl-d14	69	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB1-7.5	Batch#:	153266
Lab ID:	213721-003	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	66
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB1-7.5	Batch#:	153266
Lab ID:	213721-003	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	76	35-120
Phenol-d5	76	37-120
2,4,6-Tribromophenol	72	30-120
Nitrobenzene-d5	65	47-120
2-Fluorobiphenyl	65	52-120
Terphenyl-d14	71	45-120

ND= Not Detected
 RL= Reporting Limit
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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505118	Batch#:	153266
Matrix:	Soil	Prepared:	07/27/09
Units:	ug/Kg	Analyzed:	07/28/09

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
Phenanthrrene	ND	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330
Fluoranthene	ND	66

ND= Not Detected

RL= Reporting Limit

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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505118	Batch#:	153266
Matrix:	Soil	Prepared:	07/27/09
Units:	ug/Kg	Analyzed:	07/28/09

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	73	35-120
Phenol-d5	72	37-120
2,4,6-Tribromophenol	52	30-120
Nitrobenzene-d5	73	47-120
2-Fluorobiphenyl	76	52-120
Terphenyl-d14	77	45-120

ND= Not Detected
 RL= Reporting Limit
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Batch QC Report
Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC505119	Batch#:	153266
Matrix:	Soil	Prepared:	07/27/09
Units:	ug/Kg	Analyzed:	07/28/09

Analyte	Spiked	Result	%REC	Limits
Phenol	2,634	1,814	69	37-120
2-Chlorophenol	2,634	1,812	69	44-120
1,4-Dichlorobenzene	2,634	1,715	65	51-120
N-Nitroso-di-n-propylamine	2,634	1,955	74	26-120
1,2,4-Trichlorobenzene	2,634	1,851	70	46-120
4-Chloro-3-methylphenol	2,634	1,942	74	48-120
Acenaphthene	987.8	644.2	65	50-120
4-Nitrophenol	2,634	1,884	72	39-120
2,4-Dinitrotoluene	2,634	1,954	74	50-120
Pentachlorophenol	2,634	1,856	70	26-120
Pyrene	987.8	770.9	78	47-120

Surrogate	%REC	Limits
2-Fluorophenol	72	35-120
Phenol-d5	74	37-120
2,4,6-Tribromophenol	78	30-120
Nitrobenzene-d5	71	47-120
2-Fluorobiphenyl	75	52-120
Terphenyl-d14	80	45-120

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZZ	Batch#:	153266
MSS Lab ID:	213735-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Type: MS Lab ID: QC505124

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<81.69	2,654	1,877	71	42-120
2-Chlorophenol	<87.22	2,654	1,893	71	45-120
1,4-Dichlorobenzene	<72.96	2,654	1,817	68	50-120
N-Nitroso-di-n-propylamine	<80.55	2,654	2,181	82	35-120
1,2,4-Trichlorobenzene	<76.17	2,654	1,948	73	47-120
4-Chloro-3-methylphenol	<63.37	2,654	1,914	72	48-120
Acenaphthene	<14.18	995.4	667.7	67	49-120
4-Nitrophenol	<51.79	2,654	1,931	73	36-120
2,4-Dinitrotoluene	<67.97	2,654	1,998	75	48-120
Pentachlorophenol	<58.76	2,654	1,804	68	21-120
Pyrene	<14.93	995.4	717.9	72	40-120

Surrogate	%REC	Limits
2-Fluorophenol	76	35-120
Phenol-d5	74	37-120
2,4,6-Tribromophenol	76	30-120
Nitrobenzene-d5	76	47-120
2-Fluorobiphenyl	75	52-120
Terphenyl-d14	75	45-120

Type: MSD Lab ID: QC505125

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Phenol	2,657	2,041	77	42-120	8 34
2-Chlorophenol	2,657	2,051	77	45-120	8 34
1,4-Dichlorobenzene	2,657	1,943	73	50-120	7 33
N-Nitroso-di-n-propylamine	2,657	2,398	90	35-120	9 41
1,2,4-Trichlorobenzene	2,657	2,110	79	47-120	8 33
4-Chloro-3-methylphenol	2,657	2,044	77	48-120	6 33
Acenaphthene	996.3	743.1	75	49-120	11 32
4-Nitrophenol	2,657	2,143	81	36-120	10 40
2,4-Dinitrotoluene	2,657	2,263	85	48-120	12 33
Pentachlorophenol	2,657	2,074	78	21-120	14 48
Pyrene	996.3	781.6	78	40-120	8 33

Surrogate	%REC	Limits
2-Fluorophenol	84	35-120
Phenol-d5	82	37-120
2,4,6-Tribromophenol	85	30-120
Nitrobenzene-d5	85	47-120
2-Fluorobiphenyl	85	52-120
Terphenyl-d14	83	45-120

RPD= Relative Percent Difference

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Organochlorine Pesticides

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB1-0-0.5	Batch#:	153220
Lab ID:	213721-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	87	44-126
Decachlorobiphenyl	56	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB1-2.5	Batch#:	153220
Lab ID:	213721-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	88	44-126
Decachlorobiphenyl	58	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB1-7.5	Batch#:	153220
Lab ID:	213721-003	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	86	44-126
Decachlorobiphenyl	56	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Organochlorine Pesticides

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504907	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	82	44-126
Decachlorobiphenyl	57	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Organochlorine Pesticides

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504908	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.34	10.22	77	45-121
Heptachlor	13.34	9.646	72	39-127
Aldrin	13.34	9.827	74	43-120
Dieldrin	26.68	19.11	72	43-126
Endrin	26.68	19.14	72	30-130
4,4'-DDT	26.68	19.80	74	41-133

Surrogate	%REC	Limits
TCMX	78	44-126
Decachlorobiphenyl	51	38-139

Batch QC Report

Organochlorine Pesticides

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	WC-RRA-072309	Batch#:	153220
MSS Lab ID:	213714-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504909

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.2956	13.37	11.32	85	41-132
Heptachlor	<0.2240	13.37	11.05	83	40-130
Aldrin	3.015	13.37	11.32	62	45-122
Dieldrin	<0.3596	26.75	20.74	78	45-130
Endrin	<0.4128	26.75	21.39	80	42-139
4,4'-DDT	0.9684	26.75	19.72 #	70	30-139

Surrogate	%REC	Limits
TCMX	82	44-126
Decachlorobiphenyl	53	38-139

Type: MSD Lab ID: QC504910

Analyte	Spiked	Result	%REC	Limits	RPD Lim
gamma-BHC	13.30	10.74	81	41-132	5 34
Heptachlor	13.30	10.87	82	40-130	1 39
Aldrin	13.30	11.21	62	45-122	0 32
Dieldrin	26.60	20.13	76	45-130	2 34
Endrin	26.60	20.80	78	42-139	2 40
4,4'-DDT	26.60	19.77 #	71	30-139	1 42

Surrogate	%REC	Limits
TCMX	81	44-126
Decachlorobiphenyl	49	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements
 RPD= Relative Percent Difference

Polychlorinated Biphenyls (PCBs)

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	153220
Units:	ug/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/25/09

Field ID: SB1-0-0.5 Lab ID: 213721-001
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	119	68-136
Decachlorobiphenyl	62	52-140

Field ID: SB1-2.5 Lab ID: 213721-002
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	124	68-136
Decachlorobiphenyl	53	52-140

ND= Not Detected

RL= Reporting Limit

Polychlorinated Biphenyls (PCBs)

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	153220
Units:	ug/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/25/09

Field ID: SB1-7.5 Lab ID: 213721-003
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	127	68-136
Decachlorobiphenyl	60	52-140

Type: BLANK Analyzed: 07/28/09
 Lab ID: QC504907

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	105	68-136
Decachlorobiphenyl	64	52-140

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504911	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/28/09

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	165.6	195.9	118	76-140
Aroclor-1260	165.6	205.8	124	77-141

Surrogate	%REC	Limits
TCMX	110	68-136
Decachlorobiphenyl	63	52-140

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Field ID:	WC-RRA-072309	Batch#:	153220
MSS Lab ID:	213714-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/30/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504912

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	<0.5863	165.5	168.8	102	63-153
Aroclor-1260	6.358	165.5	153.8	89	47-145

Surrogate	%REC	Limits
TCMX	106	68-136
Decachlorobiphenyl	45 *	52-140

Type: MSD Lab ID: QC504913

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	164.9	175.7	107	63-153	4	28
Aroclor-1260	164.9	168.0	98	47-145	9	30

Surrogate	%REC	Limits
TCMX	104	68-136
Decachlorobiphenyl	51 *	52-140

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

California Title 22 Metals

Lab #:	213721	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St,RFS,Richmond
Field ID:	SB1-0-0.5	Basis:	as received
Lab ID:	213721-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.89	0.50	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Arsenic	5.1	0.25	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Barium	180	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.42	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	36	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	11	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	21	0.26	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	18	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.24	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.48	0.25	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Nickel	31	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	37	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	45	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213721	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St,RFS,Richmond
Field ID:	SB1-2.5	Basis:	as received
Lab ID:	213721-002	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Arsenic	4.3	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	180	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.44	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	40	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	18	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	15	0.26	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	10	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.047	0.021	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.52	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	35	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	40	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	38	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213721	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St,RFS,Richmond
Field ID:	SB1-7.5	Basis:	as received
Lab ID:	213721-003	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	3.0	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	51	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.24	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	31	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	4.1	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	11	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	2.6	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.045	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	ND	0.25	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Nickel	38	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	25	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	26	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

Batch QC Report

California Title 22 Metals

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504884	Batch#:	153216
Matrix:	Soil	Prepared:	07/24/09
Units:	mg/Kg	Analyzed:	07/27/09

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

Page 1 of 1

5.0

Batch QC Report

California Title 22 Metals

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	153216
Units:	mg/Kg	Prepared:	07/24/09
Diln Fac:	1.000	Analyzed:	07/27/09

Type: BS Lab ID: QC504885

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	93.35	93	80-120
Arsenic	50.00	47.09	94	80-120
Barium	100.0	95.97	96	80-120
Beryllium	2.500	2.620	105	80-120
Cadmium	10.00	9.708	97	80-120
Chromium	100.0	98.05	98	80-120
Cobalt	25.00	23.47	94	80-120
Copper	12.50	12.17	97	80-120
Lead	100.0	93.28	93	80-120
Molybdenum	20.00	18.97	95	80-120
Nickel	25.00	23.82	95	80-120
Selenium	50.00	46.54	93	80-120
Silver	10.00	9.540	95	80-120
Thallium	50.00	45.00	90	80-120
Vanadium	25.00	24.94	100	80-120
Zinc	25.00	22.99	92	80-120

Type: BSD Lab ID: QC504886

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	92.72	93	80-120	1	20
Arsenic	50.00	46.26	93	80-120	2	20
Barium	100.0	94.50	95	80-120	2	20
Beryllium	2.500	2.549	102	80-120	3	20
Cadmium	10.00	9.526	95	80-120	2	20
Chromium	100.0	95.96	96	80-120	2	20
Cobalt	25.00	23.01	92	80-120	2	20
Copper	12.50	11.85	95	80-120	3	20
Lead	100.0	92.04	92	80-120	1	20
Molybdenum	20.00	18.87	94	80-120	1	20
Nickel	25.00	23.55	94	80-120	1	20
Selenium	50.00	45.83	92	80-120	2	20
Silver	10.00	9.398	94	80-120	1	20
Thallium	50.00	44.36	89	80-120	1	20
Vanadium	25.00	24.49	98	80-120	2	20
Zinc	25.00	22.45	90	80-120	2	20

RPD= Relative Percent Difference

Page 1 of 1

6.0

Batch QC Report

California Title 22 Metals

Lab #:	213721	Location:	Meade St, RFS, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	153216
MSS Lab ID:	213698-003	Sampled:	07/21/09
Matrix:	Soil	Received:	07/22/09
Units:	mg/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/27/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504887

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<0.1573	90.91	36.39	40	5-120
Arsenic	2.688	45.45	42.81	88	65-120
Barium	109.8	90.91	191.9	90	40-141
Beryllium	0.4046	2.273	2.662	99	75-120
Cadmium	0.1452	9.091	8.154	88	63-120
Chromium	24.08	90.91	108.4	93	52-128
Cobalt	5.837	22.73	25.32	86	50-120
Copper	8.863	11.36	19.59	94	38-149
Lead	4.535	90.91	82.51	86	49-124
Molybdenum	0.3519	18.18	14.49	78	62-120
Nickel	28.42	22.73	48.07	86	34-148
Selenium	<0.1448	45.45	38.25	84	63-120
Silver	<0.07401	9.091	8.331	92	66-120
Thallium	<0.1614	45.45	36.03	79	57-120
Vanadium	26.16	22.73	47.10	92	41-146
Zinc	32.45	22.73	51.30	83	25-159

Type: MSD Lab ID: QC504888

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Antimony	89.29	35.64	40	5-120	0 31
Arsenic	44.64	42.50	89	65-120	1 24
Barium	89.29	190.9	91	40-141	0 31
Beryllium	2.232	2.671	102	75-120	2 21
Cadmium	8.929	8.155	90	63-120	2 20
Chromium	89.29	108.3	94	52-128	1 25
Cobalt	22.32	25.06	86	50-120	0 26
Copper	11.16	19.68	97	38-149	1 28
Lead	89.29	81.68	86	49-124	1 31
Molybdenum	17.86	14.27	78	62-120	0 20
Nickel	22.32	48.70	91	34-148	2 30
Selenium	44.64	37.90	85	63-120	1 20
Silver	8.929	8.288	93	66-120	1 20
Thallium	44.64	35.81	80	57-120	1 20
Vanadium	22.32	46.98	93	41-146	1 24
Zinc	22.32	51.55	86	25-159	1 33

RPD= Relative Percent Difference

Page 1 of 1

7.0

Batch QC Report

California Title 22 Metals

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	153323
Lab ID:	QC505352	Prepared:	07/29/09
Matrix:	Soil	Analyzed:	07/29/09
Units:	mg/Kg		

Result	RL
ND	0.020

ND= Not Detected

RL= Reporting Limit

Page 1 of 1

13.0

Batch QC Report

California Title 22 Metals

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	153323
Matrix:	Soil	Prepared:	07/29/09
Units:	mg/Kg	Analyzed:	07/29/09
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC505353	0.5000	0.5150	103	80-120		
BSD	QC505354	0.5000	0.5050	101	80-120	2	20

RPD= Relative Percent Difference

Page 1 of 1

14.0

Batch QC Report

California Title 22 Metals

Lab #:	213721	Location:	Meade St,RFS,Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	SB1-0-0.5	Batch#:	153323
MSS Lab ID:	213721-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	mg/Kg	Prepared:	07/29/09
Basis:	as received	Analyzed:	07/29/09

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC505355	0.2426	0.4808	0.7904	114	64-138		
MSD	QC505356		0.4717	0.8142	121	64-138	4	27

RPD= Relative Percent Difference

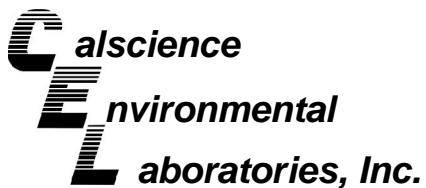
Page 1 of 1

15.0

Laboratory Job Number 213721

Subcontracted Products

Cal Science



August 11, 2009

Lisa Brooker
Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Subject: **Calscience Work Order No.: 09-07-2172**
Client Reference: 213721

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/28/2009 and analyzed in accordance with the attached chain-of-custody.

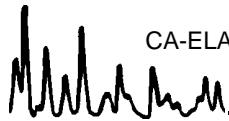
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Vikas Patel".

Calscience Environmental
Laboratories, Inc.
Vikas Patel
Project Manager



CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/28/09
Work Order No: 09-07-2172
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213721

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB1-0-0.5	09-07-2172-1-A	07/23/09 08:10	Solid	GC 40	07/30/09	08/05/09 13:03	090730L09

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	75	30-130							

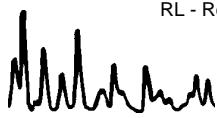
SB1-2.5	09-07-2172-2-A	07/23/09 08:15	Solid	GC 40	07/30/09	08/05/09 13:35	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	122	30-130							

SB1-7.5	09-07-2172-3-A	07/23/09 08:30	Solid	GC 40	07/30/09	08/05/09 14:07	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	81	30-130							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/28/09
Work Order No: 09-07-2172
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213721

Page 2 of 2

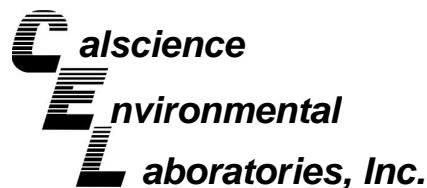
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	095-01-033-852-A	N/A	Solid	GC 40	07/30/09	08/05/09 11:26	090730L09

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	93	30-130							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Quality Control - LCS/LCS Duplicate



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

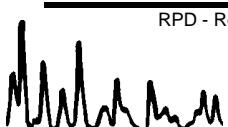
Date Received: N/A
Work Order No: 09-07-2172
Preparation: EPA 8151A
Method: EPA 8151A

Project: 213721

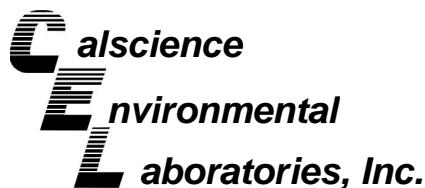
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-033-852	Solid	GC 40	07/30/09	08/05/09	090730L09

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
2,4-D	105	104	30-130	1	0-30	
2,4,5-T	98	97	30-130	1	0-30	
2,4-DB	107	106	30-130	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit



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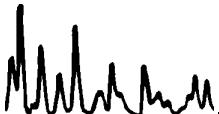


Glossary of Terms and Qualifiers



Work Order Number: 09-07-2172

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



Curtis & Tompkins, Ltd.
 Analytical Laboratories, Since 1878
 2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900
 (510) 486-0532

Project Number: 213721
 Site: Meade St, RFS, Richmond

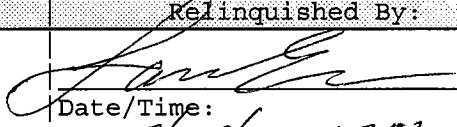
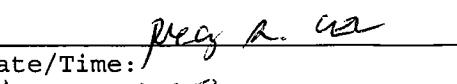
Subcontract Laboratory:

Cal Science
 7440 Lincoln Way
 Garden Grove, CA 92841-1432
 (714) 895-5494
 ATTN: Vik Patel

Results due: Report Level: II

Please send report to: Lisa Brooker (lisa@ctberk.com)
 *** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
SB1-0-0.5	07/23 08:10	Soil	8150	213721-001	
SB1-2.5	07/23 08:15	Soil	8150	213721-002	
SB1-7.5	07/23 08:30	Soil	8150	213721-003	

Notes:	Relinquished By:	Received By:
		
	Date/Time: 7/27/09 1300 ONTRAC	Date/Time: 7/28/09 10:00

Signature on this form constitutes a firm Purchase Order for the services requested above.

Page 1 of 1

SAMPLE RECEIPT FORM Cooler of

CLIENT: CURTIS L TOMPKINS

DATE: 07/28/09

TEMPERATURE: (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 4.2 °C - 0.2°C (CF) = 4.0 °C Blank Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: _____).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
- Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Metals Only PCBs Only

Initial: PS

CUSTODY SEALS INTACT:

<input type="checkbox"/> Cooler	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial: <u>PS</u>
<input type="checkbox"/> Sample	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/>	Initial: <u>HL</u>

SAMPLE CONDITION:

Yes No N/A

- Chain-Of-Custody (COC) document(s) received with samples.....
- COC document(s) received complete.....
- Collection date/time, matrix, and/or # of containers logged in based on sample labels.
- COC not relinquished. No date relinquished. No time relinquished. HL 07.28.09
- Sampler's name indicated on COC.....
- Sample container label(s) consistent with COC.....
- Sample container(s) intact and good condition.....
- Correct containers and volume for analyses requested.....
- Analyses received within holding time.....
- Proper preservation noted on COC or sample container.....
- Unpreserved vials received for Volatiles analysis
- Volatile analysis container(s) free of headspace.....
- Tedlar bag(s) free of condensation.....

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores® TerraCores® _____

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs 500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna 250PB 250PBn 125PB 125PBznna 100PJ 100PJna₂ _____ _____

Air: Tedlar® Summa® _____ **Other:** _____ **Checked/Labeled by:** HL

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop **Reviewed by:** PS

Preservative: h: HCl n: HNO₃ na₂:Na₂S₂O₃ Na: NaOH p: H₃PO₄ s: H₂SO₄ znna: ZnAc₂+NaOH f: Field-filtered **Scanned by:** HL



Curtis & Tompkins, Ltd.

Analytical Laboratories, Since 1878



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

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

**Laboratory Job Number 213717
ANALYTICAL REPORT**

PES Environmental, Inc.
1682 Novato Boulevard
Novato, CA 94947

Project : 644.014.01.003
Location : Meade St .RFS,Richmond CA
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
SB2-0-0.5	213717-001
SB2-2.5	213717-002
SB2-8.0	213717-003
SB3-0-0.5	213717-004
SB3-2.5	213717-005
SB3-8.0	213717-006
SB4-0-0.5	213717-007
SB4-2.5	213717-008
SB4-8.0	213717-009
SB5-0-0.5	213717-010
SB5-2.5	213717-011
SB5-7.5	213717-012
SB6-0-0.5	213717-013
SB6-2.5	213717-014
SB6-7.5	213717-015

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 signatures. 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: *Sara Blaeker*
Project Manager

Date: 08/11/2009

NELAP # 01107CA

CASE NARRATIVE

Laboratory number: 213717
Client: PES Environmental, Inc.
Project: 644.014.01.003
Location: Meade St .RFS,Richmond CA
Request Date: 07/23/09
Samples Received: 07/23/09

This data package contains sample and QC results for fourteen soil samples and one rocks sample, requested for the above referenced project on 07/23/09. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B) Soil:

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Miscell.:

No analytical problems were encountered.

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

No analytical problems were encountered.

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

SB3-0-0.5 (lab # 213717-004) was diluted due to the dark and viscous nature of the sample extract. No other analytical problems were encountered.

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

No analytical problems were encountered.

Pesticides (EPA 8081B) Soil:

All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. All samples underwent florisil cleanup using EPA Method 3620C. No analytical problems were encountered.

Pesticides (EPA 8081B) Miscell.:

All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. No analytical problems were encountered.

PCBs (EPA 8082) Soil:

All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. Low surrogate recoveries were observed for decachlorobiphenyl in many samples; the corresponding TCMX surrogate recoveries were within limits. No other analytical problems were encountered.

PCBs (EPA 8082) Miscell.:

All samples underwent sulfuric acid cleanup using EPA Method 3665A. All samples underwent sulfur cleanup using the copper option in EPA Method 3660B. Low recoveries were observed for Aroclor-1260 in the MS/MSD for batch 153300; the parent sample was not a project sample, and the associated RPD was within

CASE NARRATIVE

Laboratory number: 213717
Client: PES Environmental, Inc.
Project: 644.014.01.003
Location: Meade St .RFS,Richmond CA
Request Date: 07/23/09
Samples Received: 07/23/09

PCBs (EPA 8082) Miscell.:

limits. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A) Soil:

No analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A) Miscell.:

No analytical problems were encountered.

Chlorophenoxy Herbicides (EPA 8151) Soil:

Cal Science in Garden Grove, CA performed the analysis. Please see the Cal Science case narrative.

Chlorophenoxy Herbicides (EPA 8151) Miscell.:

Cal Science in Garden Grove, CA performed the analysis. Please see the Cal Science case narrative.

crush (CRUSH):

No analytical problems were encountered.



PE Environmental, Inc.
Engineering & Environmental Services

CHAIN OF CUSTODY RECORD

213717

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

LABORATORY: *Curtis & Thompson*

JOB NUMBER: 644014003

NAME / LOCATION Meade St., RFS, Richmond CA

PROJECT MANAGER: KSE

DATE				SAMPLE NUMBER / DESIGNATION
YR	MO	DY	TIME	
09	07	23	0910	SB2-0-0.5
1	1	1	109205	SB2-2.5
			09305	SB2-8.0
			09555	SB3-0-0.5
			10005	SB3-2.5
			10155	SB3-8.0
			10305	SB4-0-0.5
			10355	SB4-2.5
			10505	SB4-8.0
			11105	SB5-0-0.5
			11205	SB5-2.5
			11355	SB5-7.5

SAMPLERS: CJB

RECORDER: CJR

MATRIX		# of Containers & Preservatives					DEPTH IN FEET		
Vapor	Water	Soil	Sedim't	Uhpres.	EnCore	H ₂ SO ₄	HNO ₃	HCl	
<input checked="" type="checkbox"/>		13		13		13		13	
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<input type="checkbox"/>		1		1		1			

NOTES		CHAIN OF CUSTODY RECORD					
Turn Around Time:	Standard Pls. use Silica gel cleanup on TPH no analysis	RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME		
		<i>CB</i>	<i>Pot Jangky</i>	<i>10/20/2019</i>	<i>2:55</i>		
		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME		
		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME		
		DISPATCHED BY: (Signature)	DATE	TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
		METHOD OF SHIPMENT:	<i>CB drop off at lab</i>				



PE Environmental, Inc.

Engineering & Environmental Services

CHAIN OF CUSTODY RECORD

Curris & Tompkins

JOB NUMBER: 64401401003

NAME / LOCATION Neade St, RFS, Richmond Q

PROJECT MANAGER: ESG

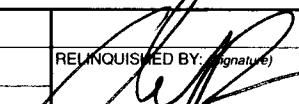
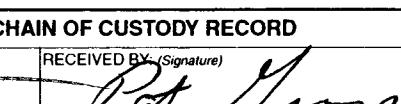
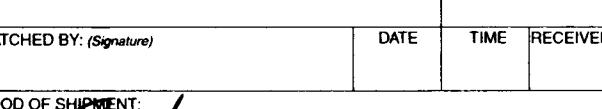
SAMPLERS: JB

A CJR
RECORDED

Z13717

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

ANALYSIS REQUESTED	
EPA 5035/8010	
EPA 5035/8021	
EPA 5035/802B	
TPHg by 5035/8015M	
TPHd by 8015M	
TPHmo by 8015M	
EPA 8270C	
MINA Parameters (see notes)	
The 22 minable colors	
323s mg	
VOCs mg	
SVOCs mg	
Lead mg	
TPHmo by 8015M	

NOTES	CHAIN OF CUSTODY RECORD					
	RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME		
Turn Around Time: Standard SGCU on TPH and			Feb 2023	2:55		
	RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME		
	RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME		
	RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME		
	DISPATCHED BY: (Signature)	DATE	TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:						

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 213717 Date Received 7/23/09 Number of coolers 1
 Client PBS Project MEX001 ST. PBS

Date Opened 7/23/09 By (print) M. VILLANUEVA (sign) ✓
 Date Logged in ✓ By (print) ✓ (sign) ✓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES NO

Shipping info _____

2A. Were custody seals present? ... YES (circle) on cooler on samples NO
 How many _____ Name _____ Date _____

2B. Were custody seals intact upon arrival? _____ YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. 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? YES NO

If YES, what time were they transferred to freezer? 1620

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES NO

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles > 6mm absent in VOA samples? YES NO N/A

16. Was the client contacted concerning this sample delivery? YES NO

If YES, Who was called? _____ By _____ Date: _____

COMMENTS

STATIONERY SHIPPED OFF FOR 8/5/1

Total Extractable Hydrocarbons

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	153299
Units:	mg/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/28/09

Field ID: SB2-0-0.5 Analyzed: 07/29/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-001

Analyte	Result	RL
Diesel C10-C24	1.5 Y	1.0
Motor Oil C24-C36	10	5.0

Surrogate	%REC	Limits
o-Terphenyl	77	53-133

Field ID: SB2-2-5 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-002

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

Surrogate	%REC	Limits
o-Terphenyl	73	53-133

Field ID: SB2-8.0 Analyzed: 07/29/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-003

Analyte	Result	RL
Diesel C10-C24	2.6 Y	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	80	53-133

Field ID: SB3-0-0.5 Analyzed: 07/29/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-004

Analyte	Result	RL
Diesel C10-C24	5.2 Y	0.99
Motor Oil C24-C36	19	5.0

Surrogate	%REC	Limits
o-Terphenyl	74	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected
 RL= Reporting Limit

Total Extractable Hydrocarbons

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	153299
Units:	mg/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/28/09

Field ID: SB3-2.5 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-005

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

Surrogate	%REC	Limits
o-Terphenyl	76	53-133

Field ID: SB3-8.0 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-006

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

Surrogate	%REC	Limits
o-Terphenyl	60	53-133

Field ID: SB4-0-0.5 Analyzed: 07/29/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-007

Analyte	Result	RL
Diesel C10-C24	3.6 Y	1.0
Motor Oil C24-C36	13	5.0

Surrogate	%REC	Limits
o-Terphenyl	78	53-133

Field ID: SB4-2.5 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-008

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

Surrogate	%REC	Limits
o-Terphenyl	77	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected

RL= Reporting Limit

Total Extractable Hydrocarbons

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	153299
Units:	mg/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/28/09

Field ID: SB4-8.0 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-009

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

Surrogate	%REC	Limits
o-Terphenyl	73	53-133

Field ID: SB5-0-0.5 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-010

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	9.1 Y	5.0

Surrogate	%REC	Limits
o-Terphenyl	73	53-133

Field ID: SB5-2.5 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-011

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

Surrogate	%REC	Limits
o-Terphenyl	71	53-133

Field ID: SB5-7.5 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-012

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

Surrogate	%REC	Limits
o-Terphenyl	58	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected

RL= Reporting Limit

Total Extractable Hydrocarbons

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Matrix:	Soil	Batch#:	153299
Units:	mg/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/28/09

Field ID: SB6-2.5 Analyzed: 07/29/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-014

Analyte	Result	RL
Diesel C10-C24	5.2 Y	1.0
Motor Oil C24-C36	32	5.0

Surrogate	%REC	Limits
o-Terphenyl	78	53-133

Field ID: SB6-7.5 Analyzed: 07/30/09
 Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213717-015

Analyte	Result	RL
Diesel C10-C24	7.8 Y	1.0
Motor Oil C24-C36	26	5.0

Surrogate	%REC	Limits
o-Terphenyl	82	53-133

Type: BLANK Analyzed: 07/29/09
 Lab ID: QC505252 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	93	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard
 ND= Not Detected

RL= Reporting Limit

Batch QC Report
Total Extractable Hydrocarbons

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC505253	Batch#:	153299
Matrix:	Soil	Prepared:	07/28/09
Units:	mg/Kg	Analyzed:	07/29/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.92	38.31	77	52-128

Surrogate	%REC	Limits
o-Terphenyl	70	53-133

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	SB2-8.0	Batch#:	153299
MSS Lab ID:	213717-003	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	mg/Kg	Prepared:	07/28/09
Basis:	as received	Analyzed:	07/30/09
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
 Lab ID: QC505254

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	2.573	49.93	34.30	64	33-145

Surrogate	%REC	Limits
o-Terphenyl	69	53-133

Type: MSD Cleanup Method: EPA 3630C
 Lab ID: QC505255

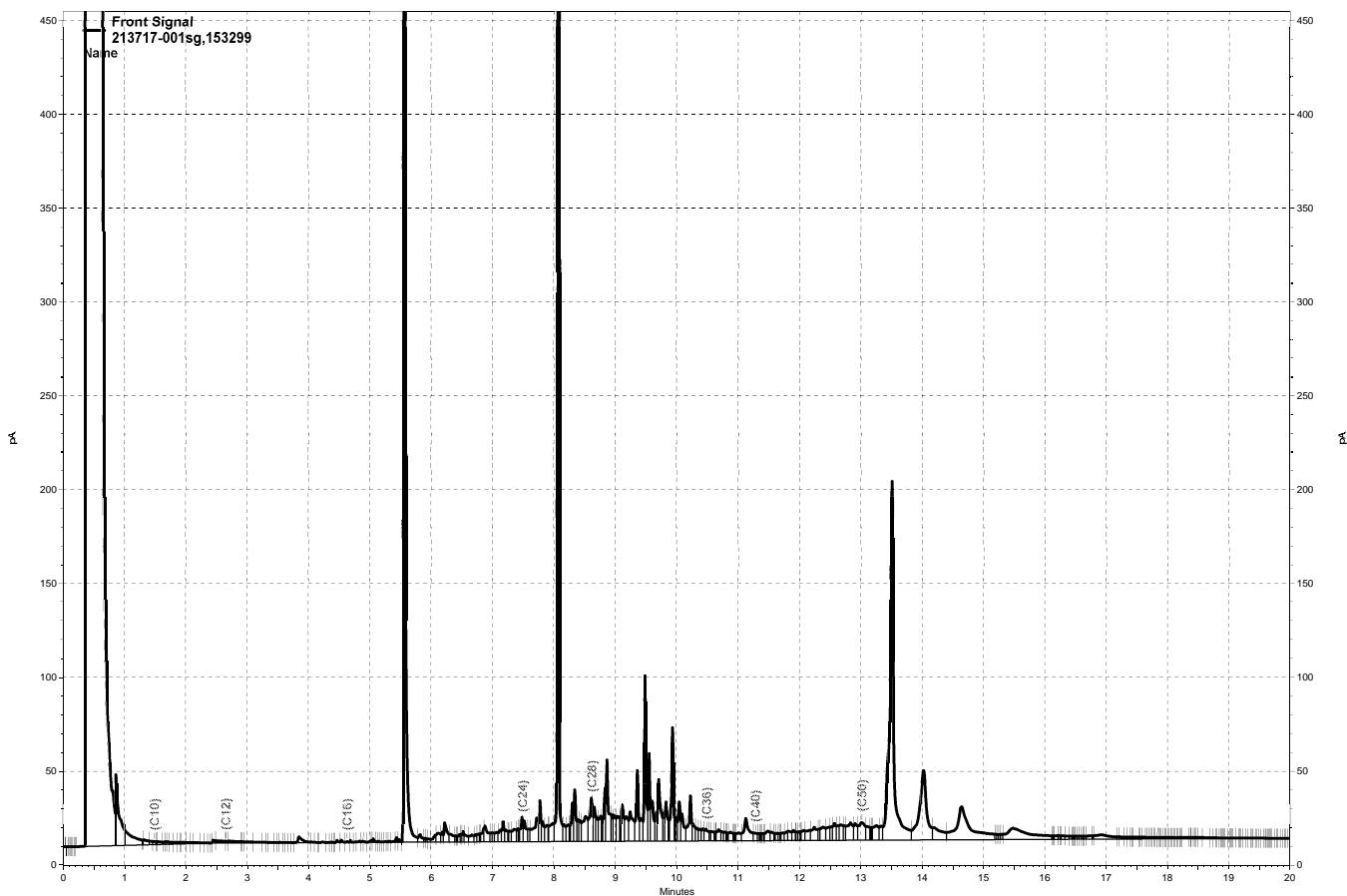
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Diesel C10-C24	49.83	31.41	58	33-145	9 44

Surrogate	%REC	Limits
o-Terphenyl	64	53-133

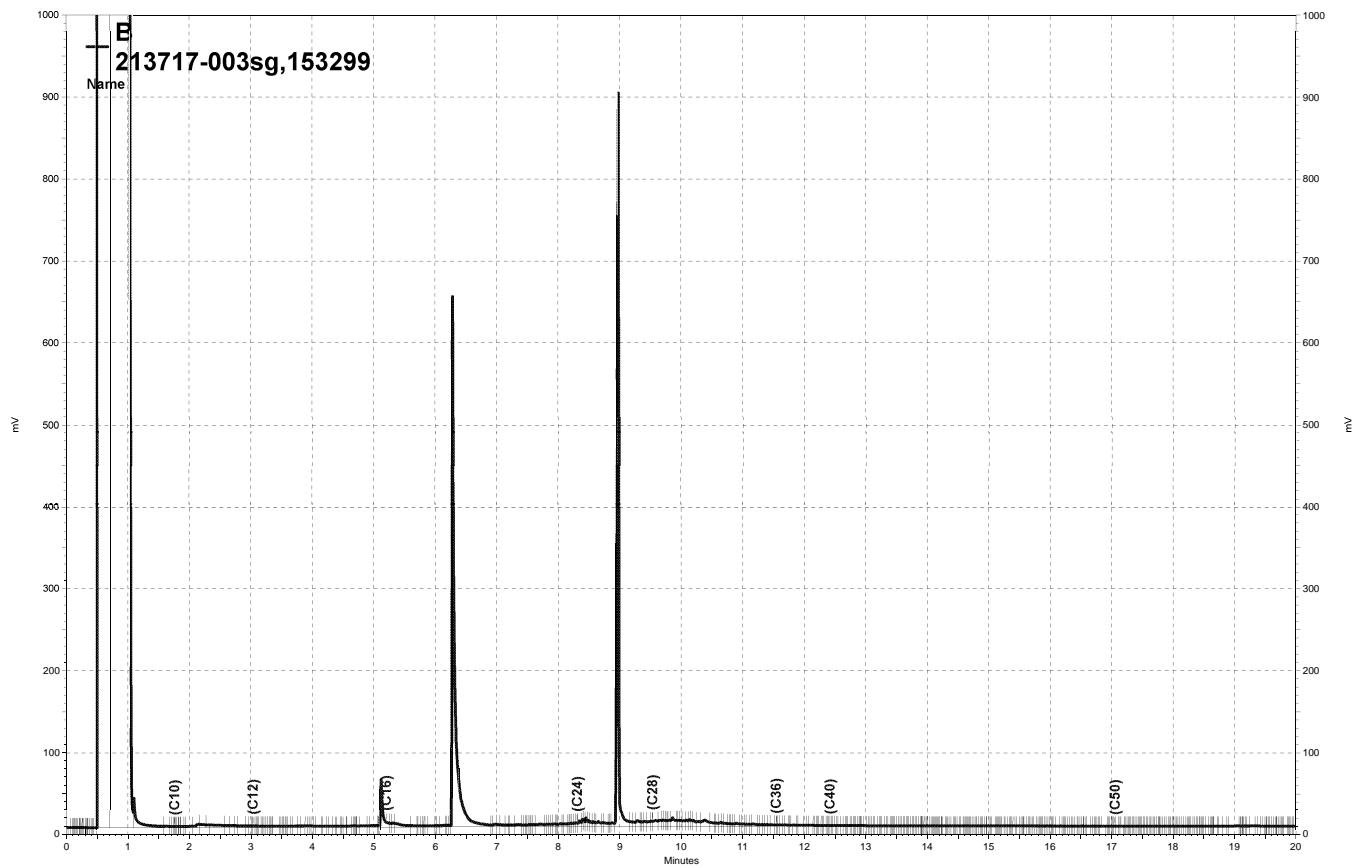
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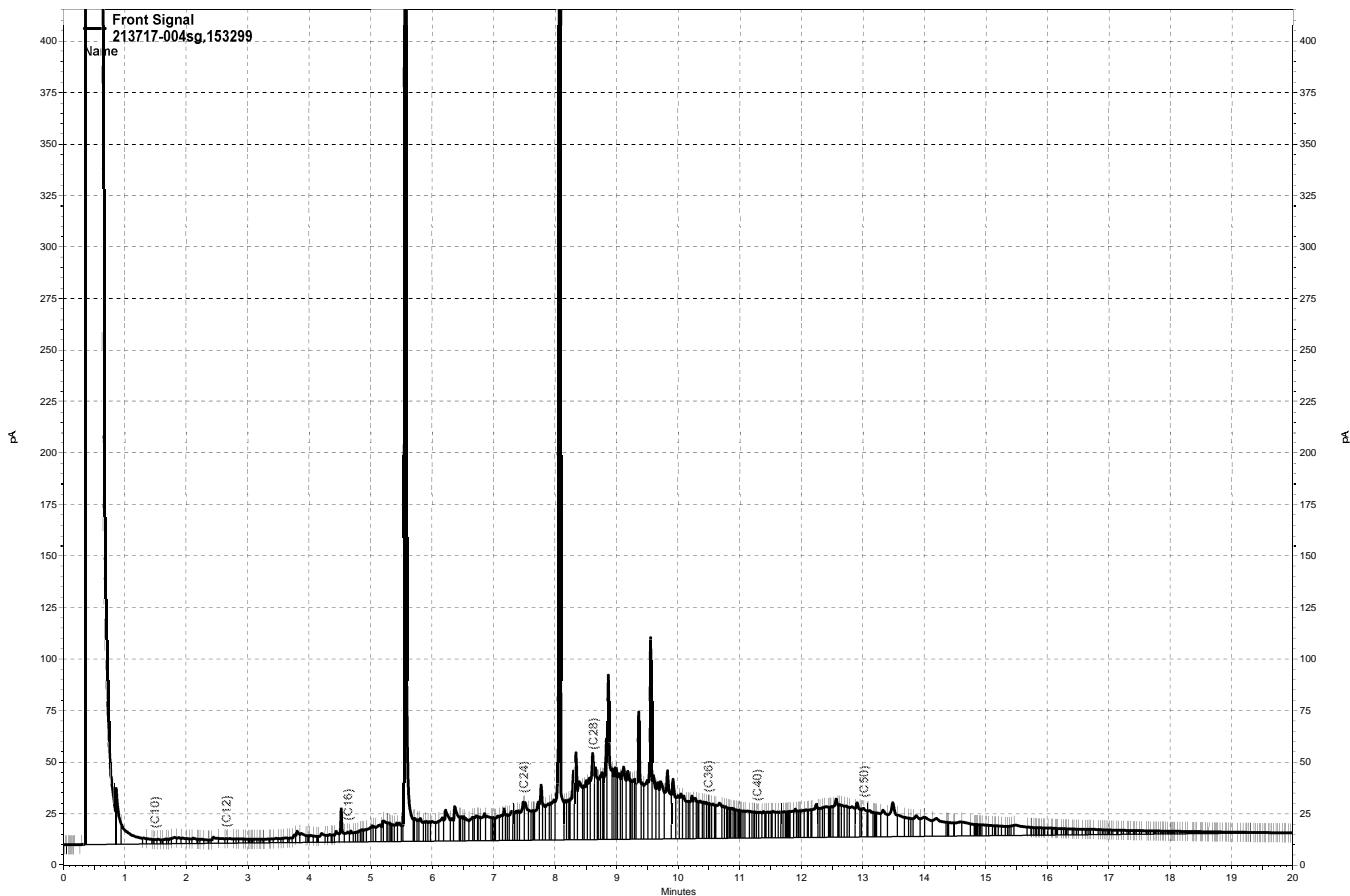
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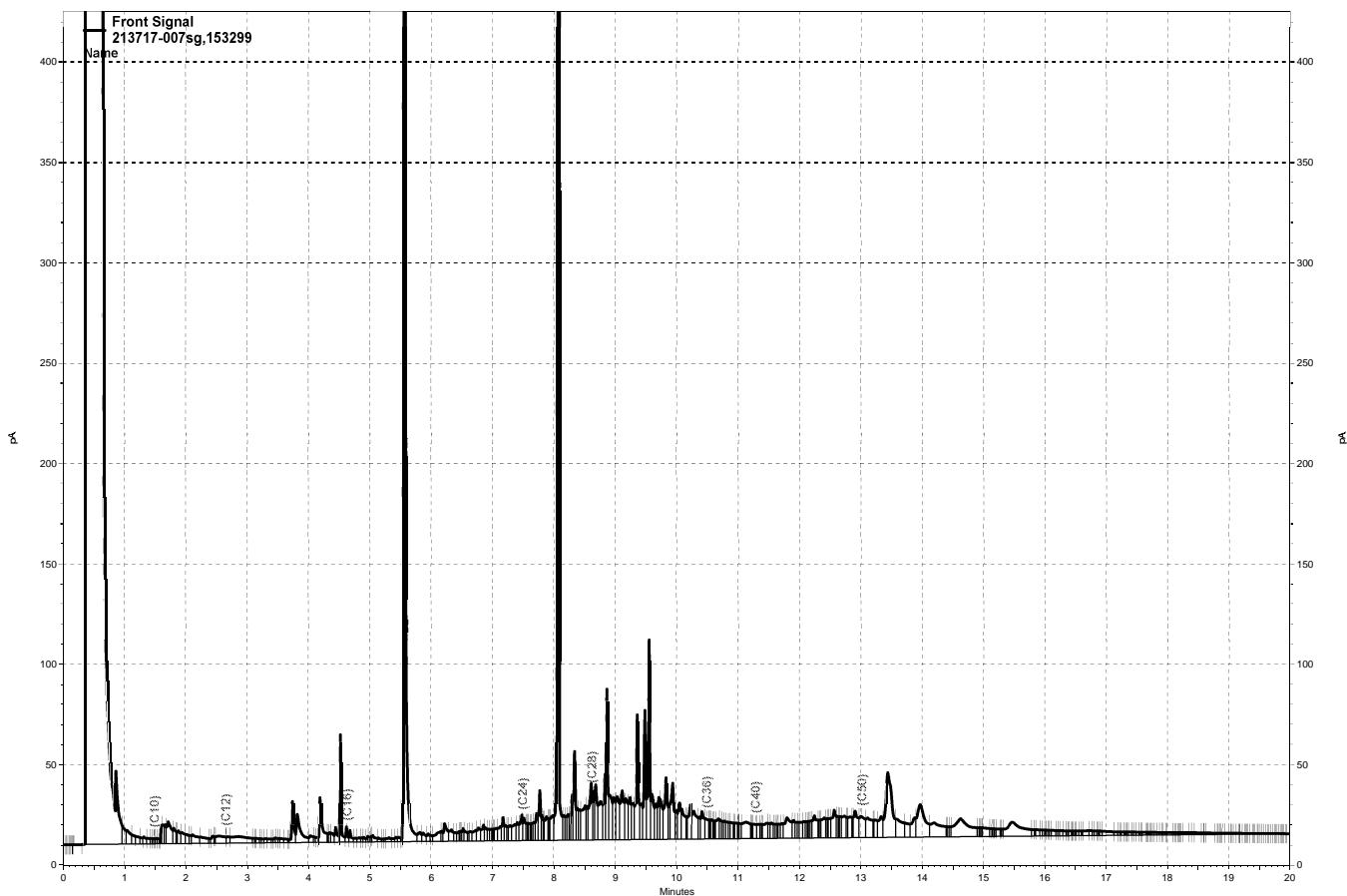
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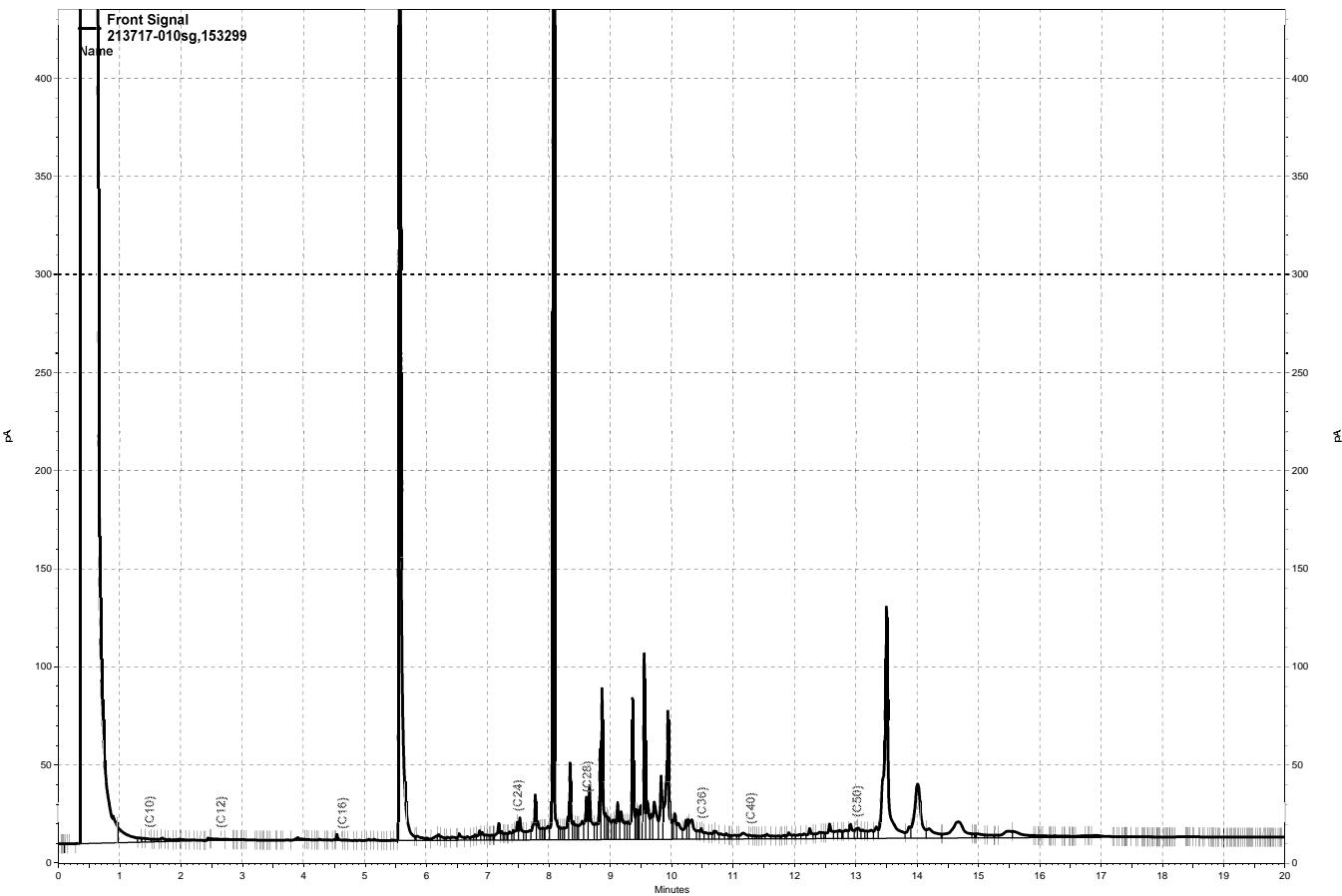


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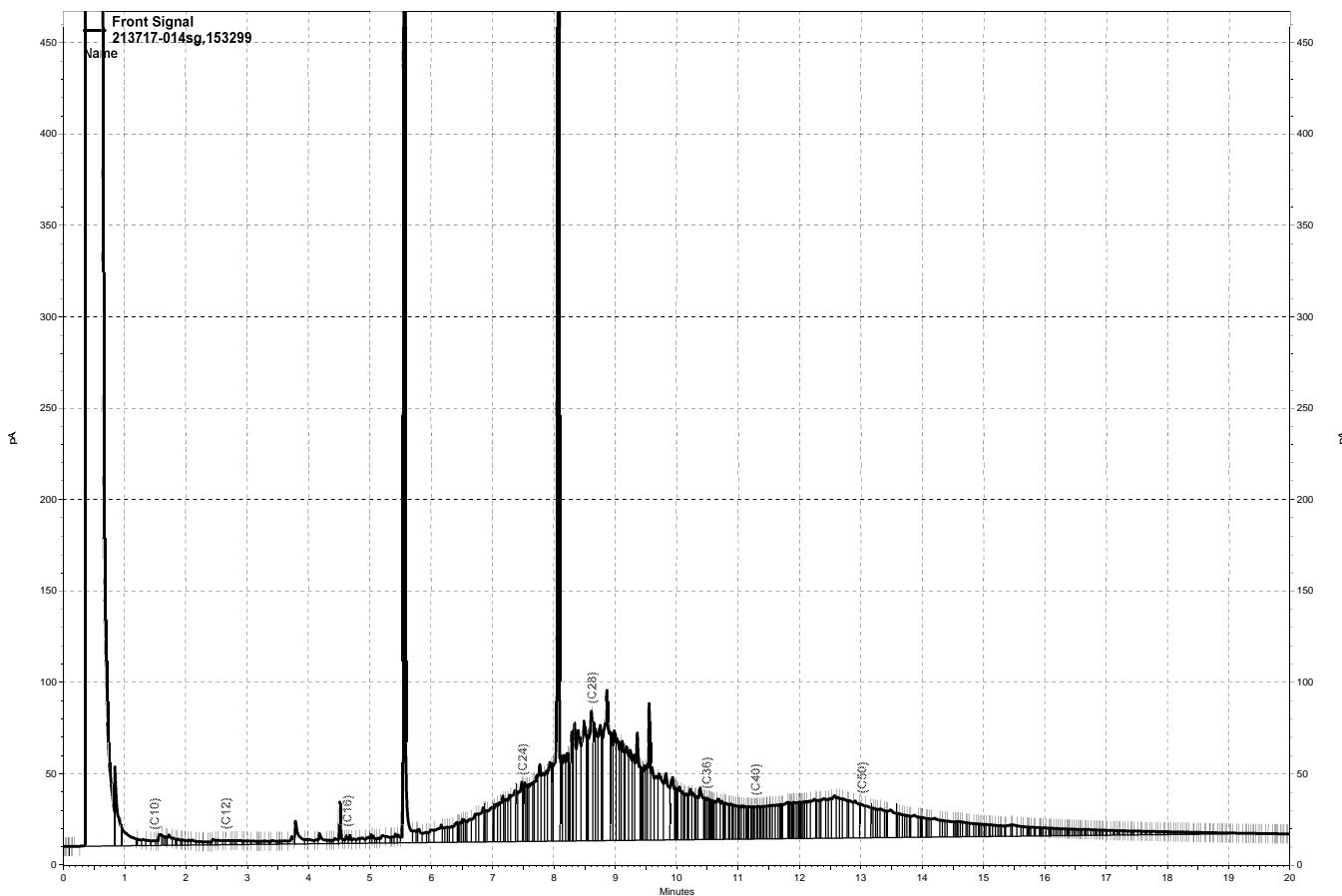


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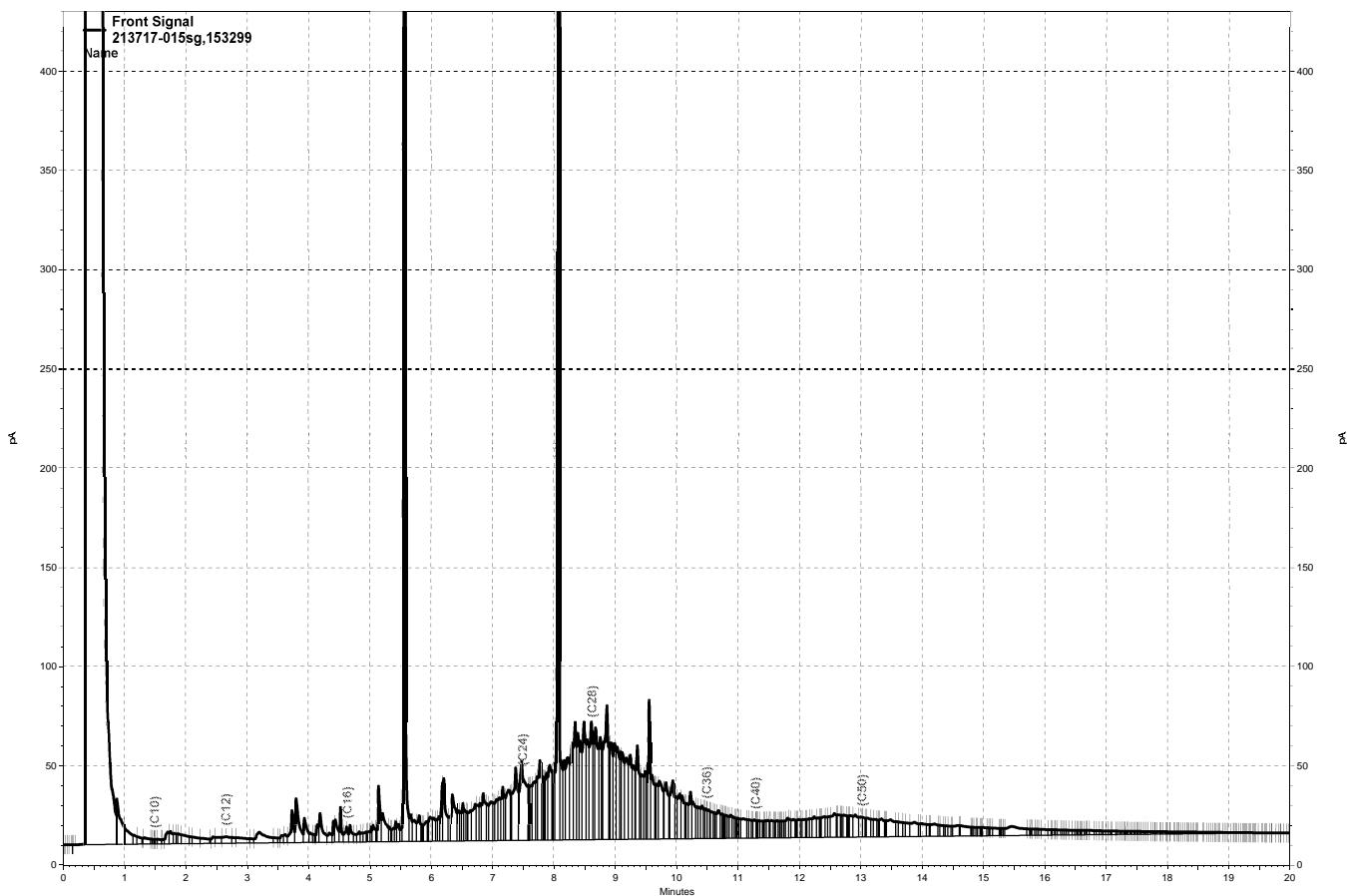




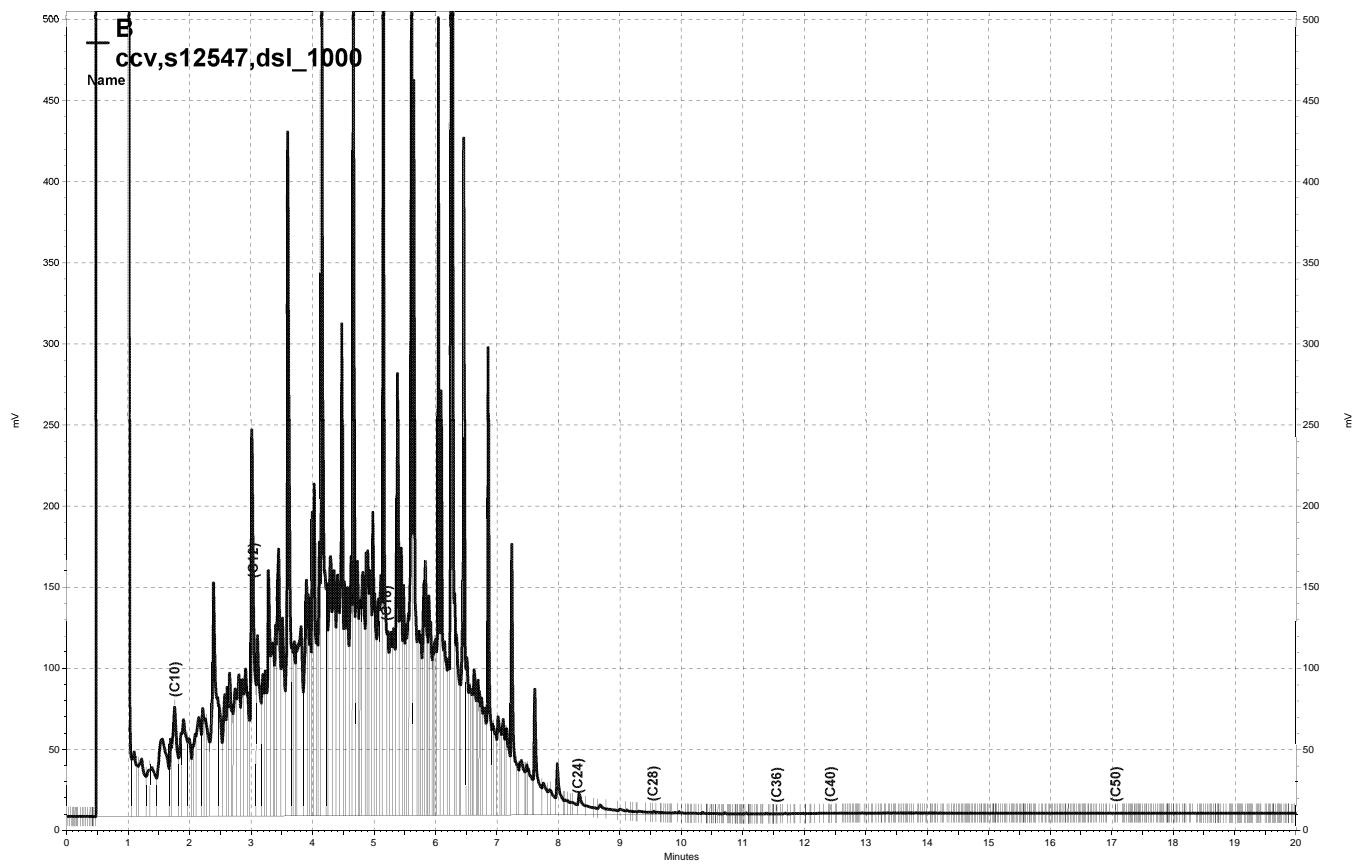
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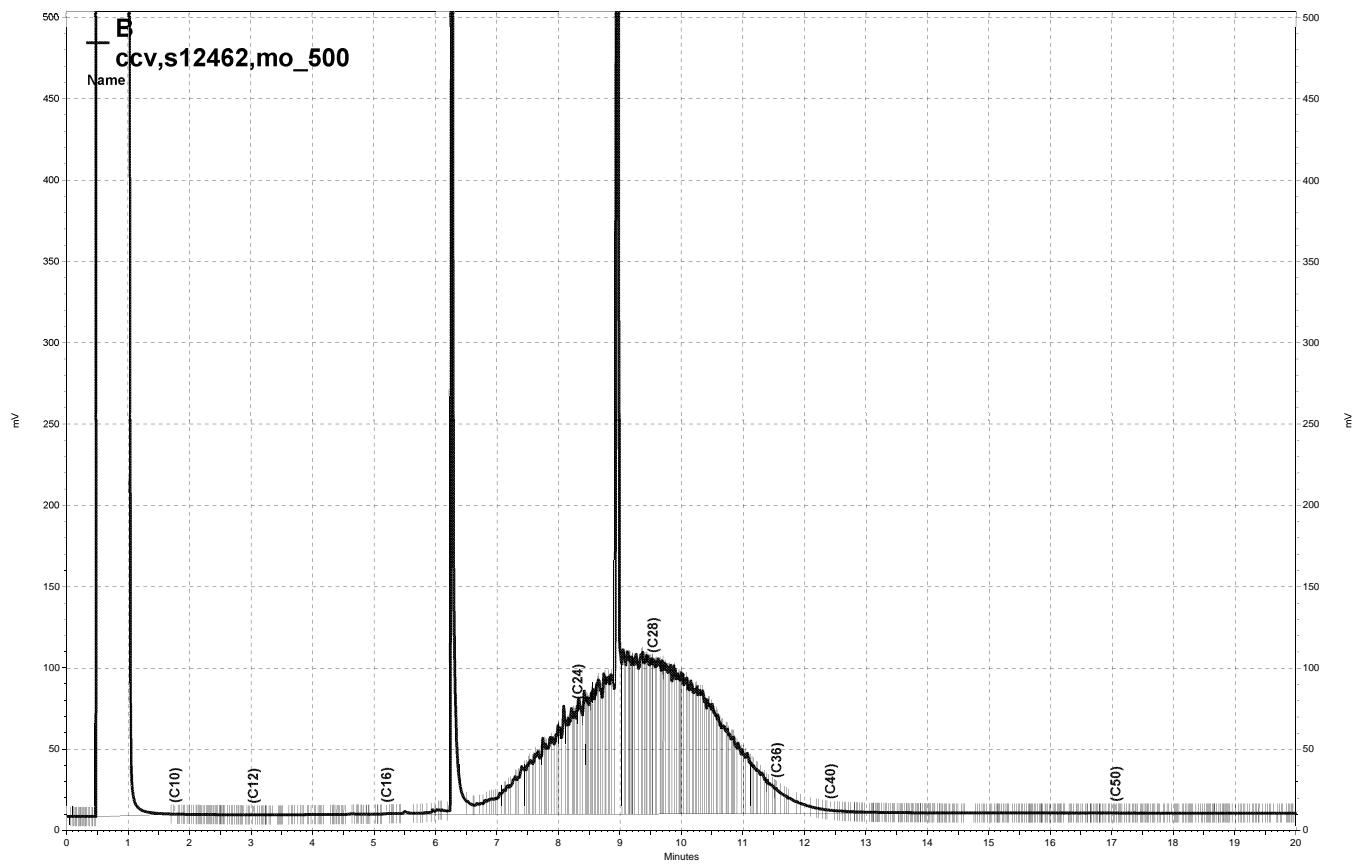
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Total Extractable Hydrocarbons

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	SB6-0-0.5	Batch#:	153299
Units:	mg/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/28/09

Type: SAMPLE Analyzed: 07/30/09
 Lab ID: 213717-013 Cleanup Method: EPA 3630C
 Matrix: Miscell.

Analyte	Result	RL
Diesel C10-C24	12 Y	1.0
Motor Oil C24-C36	49	5.0

Surrogate	%REC	Limits
o-Terphenyl	71	53-133
Hexacosane	64	45-135

Type: BLANK Analyzed: 07/29/09
 Lab ID: QC505252 Cleanup Method: EPA 3630C
 Matrix: Soil

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

Surrogate	%REC	Limits
o-Terphenyl	93	53-133
Hexacosane	86	45-135

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC505253	Batch#:	153299
Matrix:	Soil	Prepared:	07/28/09
Units:	mg/Kg	Analyzed:	07/29/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.92	38.31	77	52-128

Surrogate	%REC	Limits
o-Terphenyl	70	53-133
Hexacosane	69	45-135

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	SHAKER TABLE
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	SB2-8.0	Batch#:	153299
MSS Lab ID:	213717-003	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	mg/Kg	Prepared:	07/28/09
Basis:	as received	Analyzed:	07/30/09
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
 Lab ID: QC505254

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	2.573	49.93	34.30	64	33-145

Surrogate	%REC	Limits
o-Terphenyl	69	53-133
Hexacosane	73	45-135

Type: MSD Cleanup Method: EPA 3630C
 Lab ID: QC505255

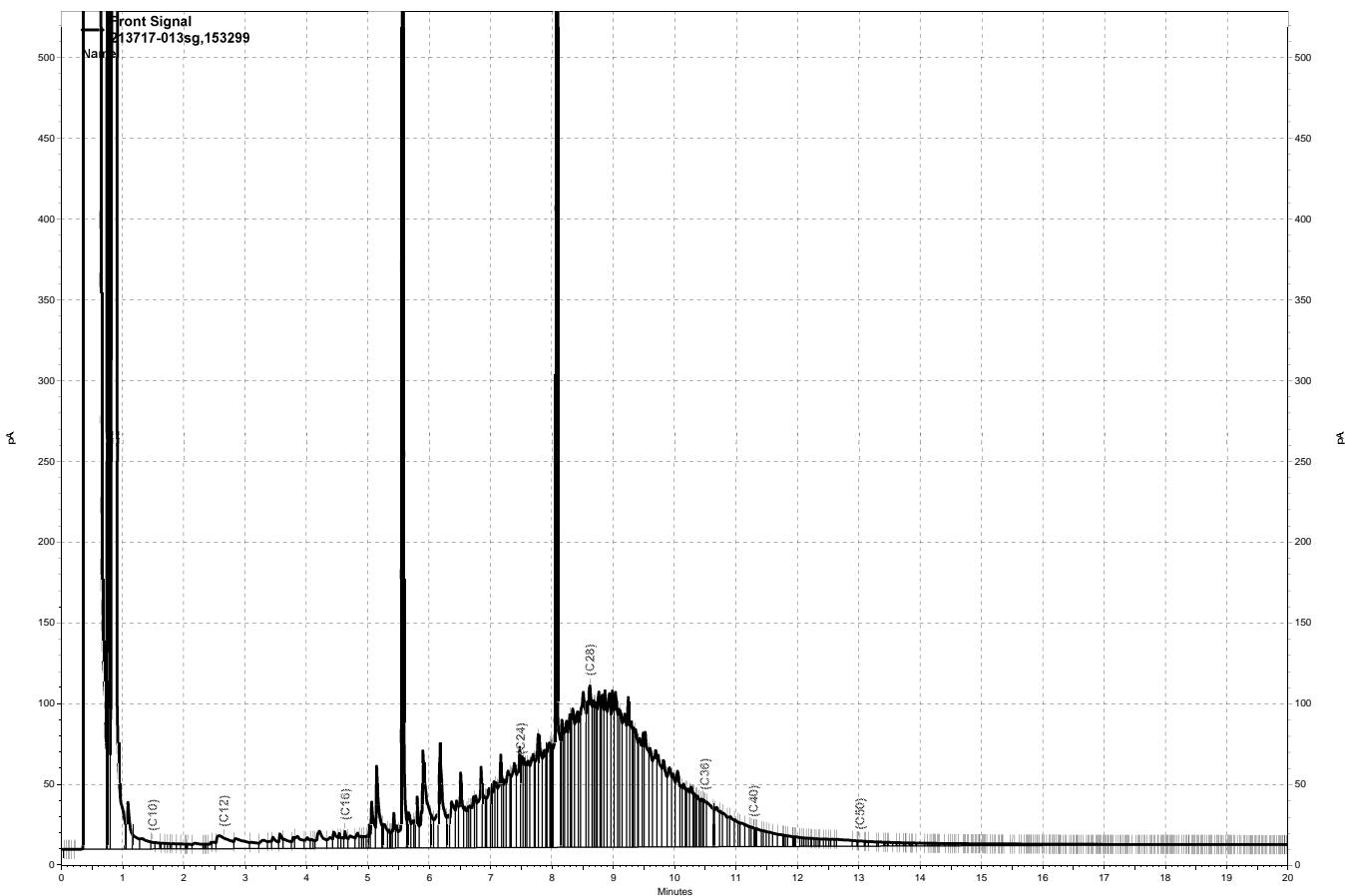
Analyte	Spiked	Result	%REC	Limits	RPD Lim
Diesel C10-C24	49.83	31.41	58	33-145	9 44

Surrogate	%REC	Limits
o-Terphenyl	64	53-133
Hexacosane	68	45-135

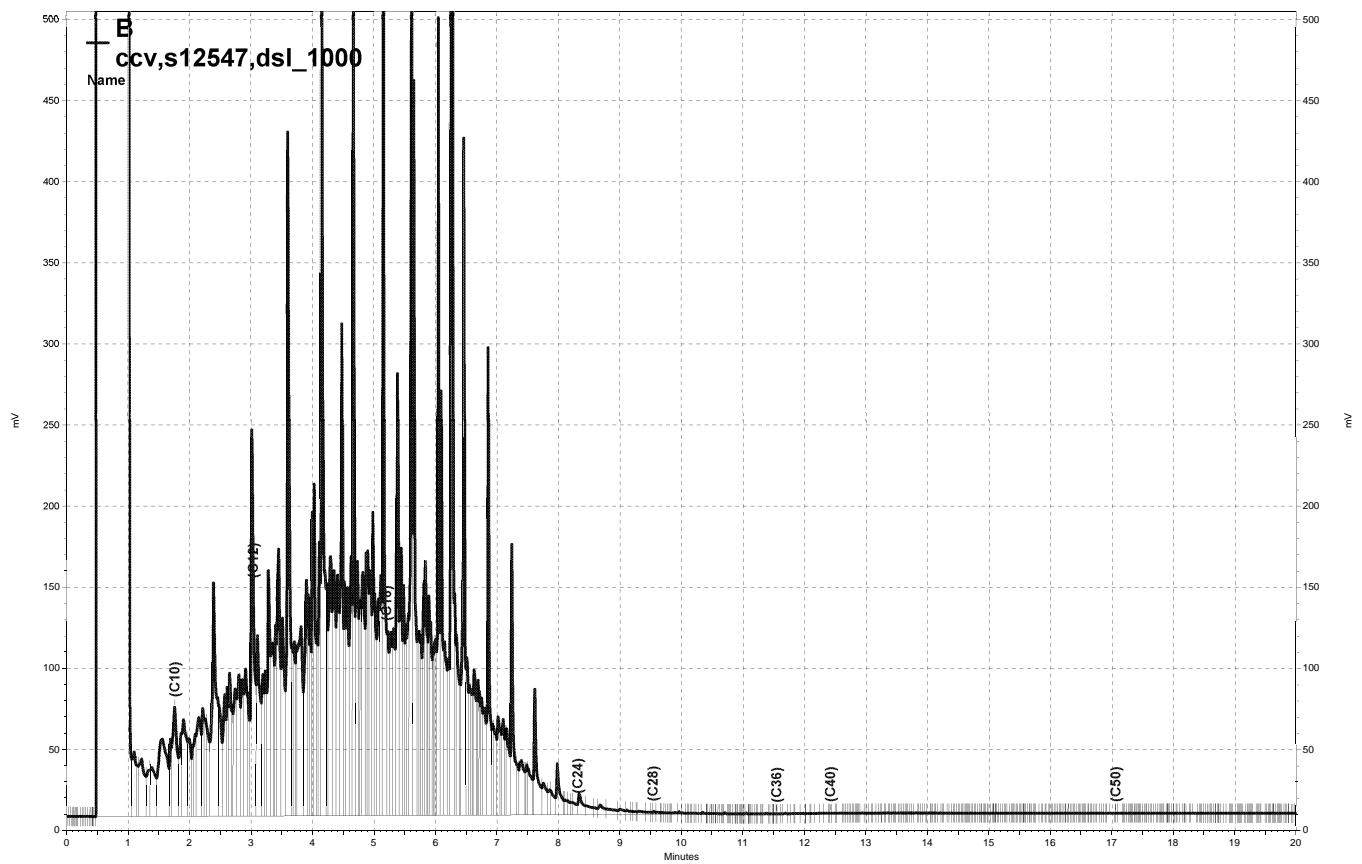
RPD= Relative Percent Difference

Page 1 of 1

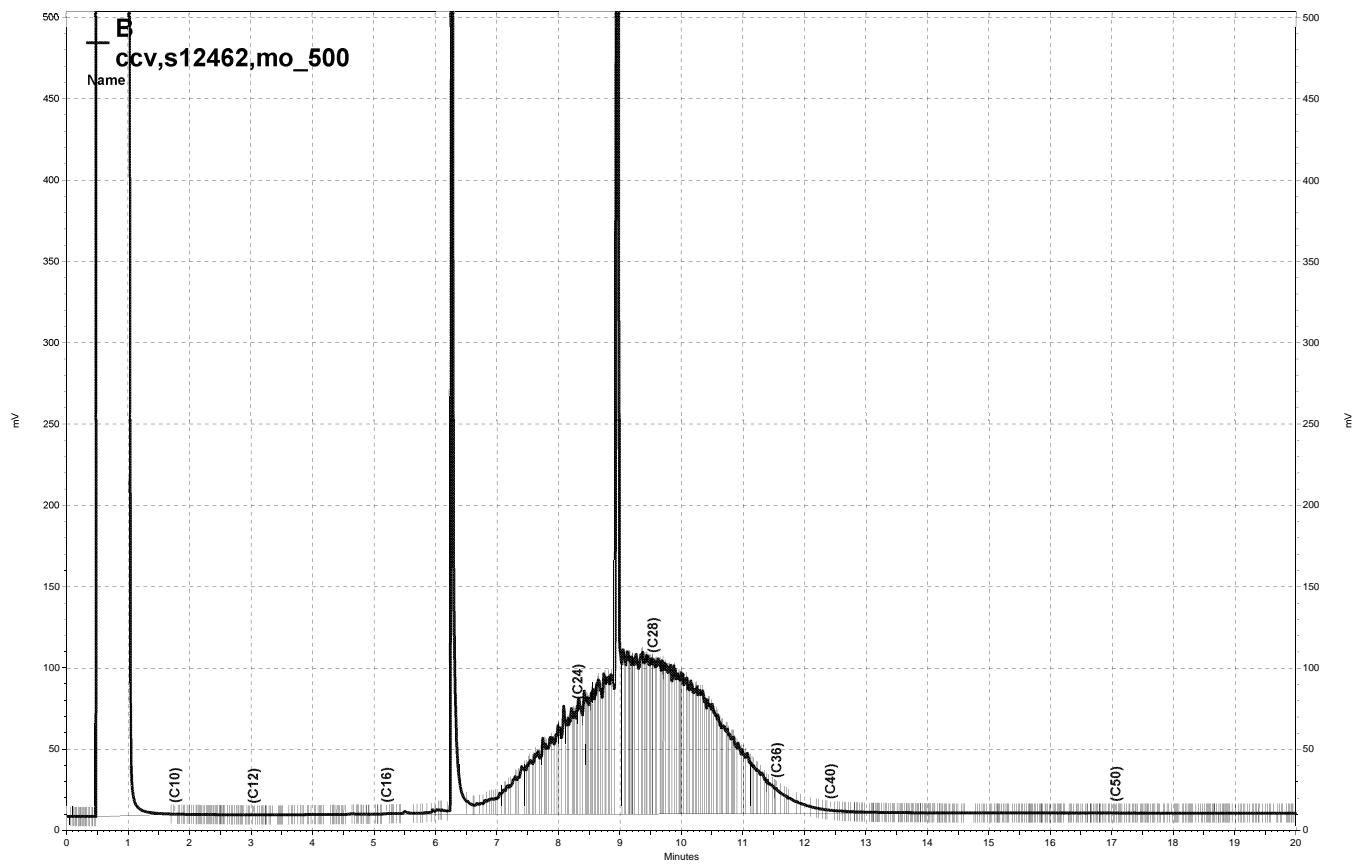
82.0



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— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\210b004, B

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB2-2.5	Diln Fac:	0.9579
Lab ID:	213717-002	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	9.6
Chloromethane	ND	9.6
Vinyl Chloride	ND	9.6
Bromomethane	ND	9.6
Chloroethane	ND	9.6
Trichlorofluoromethane	ND	4.8
Acetone	ND	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.6
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.6
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.6
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB2-2.5	Diln Fac:	0.9579
Lab ID:	213717-002	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	97	71-128
1,2-Dichloroethane-d4	98	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	98	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB2-8.0	Diln Fac:	0.9346
Lab ID:	213717-003	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	9.3
Chloromethane	ND	9.3
Vinyl Chloride	ND	9.3
Bromomethane	ND	9.3
Chloroethane	ND	9.3
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	9.3
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	9.3
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	9.3
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB2-8.0	Diln Fac:	0.9346
Lab ID:	213717-003	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

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	99	71-128
1,2-Dichloroethane-d4	105	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	97	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB3-2.5	Diln Fac:	0.8333
Lab ID:	213717-005	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	8.3
Chloromethane	ND	8.3
Vinyl Chloride	ND	8.3
Bromomethane	ND	8.3
Chloroethane	ND	8.3
Trichlorofluoromethane	ND	4.2
Acetone	ND	17
Freon 113	ND	4.2
1,1-Dichloroethene	ND	4.2
Methylene Chloride	ND	17
Carbon Disulfide	ND	4.2
MTBE	ND	4.2
trans-1,2-Dichloroethene	ND	4.2
Vinyl Acetate	ND	42
1,1-Dichloroethane	ND	4.2
2-Butanone	ND	8.3
cis-1,2-Dichloroethene	ND	4.2
2,2-Dichloropropane	ND	4.2
Chloroform	ND	4.2
Bromochloromethane	ND	4.2
1,1,1-Trichloroethane	ND	4.2
1,1-Dichloropropene	ND	4.2
Carbon Tetrachloride	ND	4.2
1,2-Dichloroethane	ND	4.2
Benzene	ND	4.2
Trichloroethene	ND	4.2
1,2-Dichloropropane	ND	4.2
Bromodichloromethane	ND	4.2
Dibromomethane	ND	4.2
4-Methyl-2-Pentanone	ND	8.3
cis-1,3-Dichloropropene	ND	4.2
Toluene	ND	4.2
trans-1,3-Dichloropropene	ND	4.2
1,1,2-Trichloroethane	ND	4.2
2-Hexanone	ND	8.3
1,3-Dichloropropane	ND	4.2
Tetrachloroethene	ND	4.2

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB3-2.5	Diln Fac:	0.8333
Lab ID:	213717-005	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Dibromochloromethane	ND	4.2
1,2-Dibromoethane	ND	4.2
Chlorobenzene	ND	4.2
1,1,1,2-Tetrachloroethane	ND	4.2
Ethylbenzene	ND	4.2
m,p-Xylenes	ND	4.2
o-Xylene	ND	4.2
Styrene	ND	4.2
Bromoform	ND	4.2
Isopropylbenzene	ND	4.2
1,1,2,2-Tetrachloroethane	ND	4.2
1,2,3-Trichloropropane	ND	4.2
Propylbenzene	ND	4.2
Bromobenzene	ND	4.2
1,3,5-Trimethylbenzene	ND	4.2
2-Chlorotoluene	ND	4.2
4-Chlorotoluene	ND	4.2
tert-Butylbenzene	ND	4.2
1,2,4-Trimethylbenzene	ND	4.2
sec-Butylbenzene	ND	4.2
para-Isopropyl Toluene	ND	4.2
1,3-Dichlorobenzene	ND	4.2
1,4-Dichlorobenzene	ND	4.2
n-Butylbenzene	ND	4.2
1,2-Dichlorobenzene	ND	4.2
1,2-Dibromo-3-Chloropropane	ND	4.2
1,2,4-Trichlorobenzene	ND	4.2
Hexachlorobutadiene	ND	4.2
Naphthalene	ND	4.2
1,2,3-Trichlorobenzene	ND	4.2

Surrogate	%REC	Limits
Dibromofluoromethane	98	71-128
1,2-Dichloroethane-d4	101	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	96	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB3-8.0	Diln Fac:	0.8078
Lab ID:	213717-006	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	8.1
Chloromethane	ND	8.1
Vinyl Chloride	ND	8.1
Bromomethane	ND	8.1
Chloroethane	ND	8.1
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	8.1
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	8.1
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	8.1
1,3-Dichloropropane	ND	4.0
Tetrachloroethene	ND	4.0

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB3-8.0	Diln Fac:	0.8078
Lab ID:	213717-006	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

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	101	71-128
1,2-Dichloroethane-d4	106	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	99	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB4-2.5	Diln Fac:	0.8881
Lab ID:	213717-008	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	8.9
Chloromethane	ND	8.9
Vinyl Chloride	ND	8.9
Bromomethane	ND	8.9
Chloroethane	ND	8.9
Trichlorofluoromethane	ND	4.4
Acetone	ND	18
Freon 113	ND	4.4
1,1-Dichloroethene	ND	4.4
Methylene Chloride	ND	18
Carbon Disulfide	ND	4.4
MTBE	ND	4.4
trans-1,2-Dichloroethene	ND	4.4
Vinyl Acetate	ND	44
1,1-Dichloroethane	ND	4.4
2-Butanone	ND	8.9
cis-1,2-Dichloroethene	ND	4.4
2,2-Dichloropropane	ND	4.4
Chloroform	ND	4.4
Bromochloromethane	ND	4.4
1,1,1-Trichloroethane	ND	4.4
1,1-Dichloropropene	ND	4.4
Carbon Tetrachloride	ND	4.4
1,2-Dichloroethane	ND	4.4
Benzene	ND	4.4
Trichloroethene	ND	4.4
1,2-Dichloropropane	ND	4.4
Bromodichloromethane	ND	4.4
Dibromomethane	ND	4.4
4-Methyl-2-Pentanone	ND	8.9
cis-1,3-Dichloropropene	ND	4.4
Toluene	ND	4.4
trans-1,3-Dichloropropene	ND	4.4
1,1,2-Trichloroethane	ND	4.4
2-Hexanone	ND	8.9
1,3-Dichloropropane	ND	4.4
Tetrachloroethene	ND	4.4

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB4-2.5	Diln Fac:	0.8881
Lab ID:	213717-008	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Dibromochloromethane	ND	4.4
1,2-Dibromoethane	ND	4.4
Chlorobenzene	ND	4.4
1,1,1,2-Tetrachloroethane	ND	4.4
Ethylbenzene	ND	4.4
m,p-Xylenes	ND	4.4
o-Xylene	ND	4.4
Styrene	ND	4.4
Bromoform	ND	4.4
Isopropylbenzene	ND	4.4
1,1,2,2-Tetrachloroethane	ND	4.4
1,2,3-Trichloropropane	ND	4.4
Propylbenzene	ND	4.4
Bromobenzene	ND	4.4
1,3,5-Trimethylbenzene	ND	4.4
2-Chlorotoluene	ND	4.4
4-Chlorotoluene	ND	4.4
tert-Butylbenzene	ND	4.4
1,2,4-Trimethylbenzene	ND	4.4
sec-Butylbenzene	ND	4.4
para-Isopropyl Toluene	ND	4.4
1,3-Dichlorobenzene	ND	4.4
1,4-Dichlorobenzene	ND	4.4
n-Butylbenzene	ND	4.4
1,2-Dichlorobenzene	ND	4.4
1,2-Dibromo-3-Chloropropane	ND	4.4
1,2,4-Trichlorobenzene	ND	4.4
Hexachlorobutadiene	ND	4.4
Naphthalene	ND	4.4
1,2,3-Trichlorobenzene	ND	4.4

Surrogate	%REC	Limits
Dibromofluoromethane	99	71-128
1,2-Dichloroethane-d4	101	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	97	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB4-8.0	Diln Fac:	0.8460
Lab ID:	213717-009	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	8.5
Chloromethane	ND	8.5
Vinyl Chloride	ND	8.5
Bromomethane	ND	8.5
Chloroethane	ND	8.5
Trichlorofluoromethane	ND	4.2
Acetone	ND	17
Freon 113	ND	4.2
1,1-Dichloroethene	ND	4.2
Methylene Chloride	ND	17
Carbon Disulfide	ND	4.2
MTBE	ND	4.2
trans-1,2-Dichloroethene	ND	4.2
Vinyl Acetate	ND	42
1,1-Dichloroethane	ND	4.2
2-Butanone	ND	8.5
cis-1,2-Dichloroethene	ND	4.2
2,2-Dichloropropane	ND	4.2
Chloroform	ND	4.2
Bromochloromethane	ND	4.2
1,1,1-Trichloroethane	ND	4.2
1,1-Dichloropropene	ND	4.2
Carbon Tetrachloride	ND	4.2
1,2-Dichloroethane	ND	4.2
Benzene	ND	4.2
Trichloroethene	ND	4.2
1,2-Dichloropropane	ND	4.2
Bromodichloromethane	ND	4.2
Dibromomethane	ND	4.2
4-Methyl-2-Pentanone	ND	8.5
cis-1,3-Dichloropropene	ND	4.2
Toluene	ND	4.2
trans-1,3-Dichloropropene	ND	4.2
1,1,2-Trichloroethane	ND	4.2
2-Hexanone	ND	8.5
1,3-Dichloropropane	ND	4.2
Tetrachloroethene	ND	4.2

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB4-8.0	Diln Fac:	0.8460
Lab ID:	213717-009	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Dibromochloromethane	ND	4.2
1,2-Dibromoethane	ND	4.2
Chlorobenzene	ND	4.2
1,1,1,2-Tetrachloroethane	ND	4.2
Ethylbenzene	ND	4.2
m,p-Xylenes	ND	4.2
o-Xylene	ND	4.2
Styrene	ND	4.2
Bromoform	ND	4.2
Isopropylbenzene	ND	4.2
1,1,2,2-Tetrachloroethane	ND	4.2
1,2,3-Trichloropropane	ND	4.2
Propylbenzene	ND	4.2
Bromobenzene	ND	4.2
1,3,5-Trimethylbenzene	ND	4.2
2-Chlorotoluene	ND	4.2
4-Chlorotoluene	ND	4.2
tert-Butylbenzene	ND	4.2
1,2,4-Trimethylbenzene	ND	4.2
sec-Butylbenzene	ND	4.2
para-Isopropyl Toluene	ND	4.2
1,3-Dichlorobenzene	ND	4.2
1,4-Dichlorobenzene	ND	4.2
n-Butylbenzene	ND	4.2
1,2-Dichlorobenzene	ND	4.2
1,2-Dibromo-3-Chloropropane	ND	4.2
1,2,4-Trichlorobenzene	ND	4.2
Hexachlorobutadiene	ND	4.2
Naphthalene	ND	4.2
1,2,3-Trichlorobenzene	ND	4.2

Surrogate	%REC	Limits
Dibromofluoromethane	102	71-128
1,2-Dichloroethane-d4	105	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	98	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB5-2.5	Diln Fac:	0.8418
Lab ID:	213717-011	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	8.4
Chloromethane	ND	8.4
Vinyl Chloride	ND	8.4
Bromomethane	ND	8.4
Chloroethane	ND	8.4
Trichlorofluoromethane	ND	4.2
Acetone	ND	17
Freon 113	ND	4.2
1,1-Dichloroethene	ND	4.2
Methylene Chloride	ND	17
Carbon Disulfide	ND	4.2
MTBE	ND	4.2
trans-1,2-Dichloroethene	ND	4.2
Vinyl Acetate	ND	42
1,1-Dichloroethane	ND	4.2
2-Butanone	ND	8.4
cis-1,2-Dichloroethene	ND	4.2
2,2-Dichloropropane	ND	4.2
Chloroform	ND	4.2
Bromochloromethane	ND	4.2
1,1,1-Trichloroethane	ND	4.2
1,1-Dichloropropene	ND	4.2
Carbon Tetrachloride	ND	4.2
1,2-Dichloroethane	ND	4.2
Benzene	ND	4.2
Trichloroethene	ND	4.2
1,2-Dichloropropane	ND	4.2
Bromodichloromethane	ND	4.2
Dibromomethane	ND	4.2
4-Methyl-2-Pentanone	ND	8.4
cis-1,3-Dichloropropene	ND	4.2
Toluene	ND	4.2
trans-1,3-Dichloropropene	ND	4.2
1,1,2-Trichloroethane	ND	4.2
2-Hexanone	ND	8.4
1,3-Dichloropropane	ND	4.2
Tetrachloroethene	ND	4.2

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB5-2.5	Diln Fac:	0.8418
Lab ID:	213717-011	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Dibromochloromethane	ND	4.2
1,2-Dibromoethane	ND	4.2
Chlorobenzene	ND	4.2
1,1,1,2-Tetrachloroethane	ND	4.2
Ethylbenzene	ND	4.2
m,p-Xylenes	ND	4.2
o-Xylene	ND	4.2
Styrene	ND	4.2
Bromoform	ND	4.2
Isopropylbenzene	ND	4.2
1,1,2,2-Tetrachloroethane	ND	4.2
1,2,3-Trichloropropane	ND	4.2
Propylbenzene	ND	4.2
Bromobenzene	ND	4.2
1,3,5-Trimethylbenzene	ND	4.2
2-Chlorotoluene	ND	4.2
4-Chlorotoluene	ND	4.2
tert-Butylbenzene	ND	4.2
1,2,4-Trimethylbenzene	ND	4.2
sec-Butylbenzene	ND	4.2
para-Isopropyl Toluene	ND	4.2
1,3-Dichlorobenzene	ND	4.2
1,4-Dichlorobenzene	ND	4.2
n-Butylbenzene	ND	4.2
1,2-Dichlorobenzene	ND	4.2
1,2-Dibromo-3-Chloropropane	ND	4.2
1,2,4-Trichlorobenzene	ND	4.2
Hexachlorobutadiene	ND	4.2
Naphthalene	ND	4.2
1,2,3-Trichlorobenzene	ND	4.2

Surrogate	%REC	Limits
Dibromofluoromethane	98	71-128
1,2-Dichloroethane-d4	102	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	99	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB5-7.5	Diln Fac:	0.8489
Lab ID:	213717-012	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Freon 12	ND	8.5
Chloromethane	ND	8.5
Vinyl Chloride	ND	8.5
Bromomethane	ND	8.5
Chloroethane	ND	8.5
Trichlorofluoromethane	ND	4.2
Acetone	ND	17
Freon 113	ND	4.2
1,1-Dichloroethene	ND	4.2
Methylene Chloride	ND	17
Carbon Disulfide	ND	4.2
MTBE	ND	4.2
trans-1,2-Dichloroethene	ND	4.2
Vinyl Acetate	ND	42
1,1-Dichloroethane	ND	4.2
2-Butanone	ND	8.5
cis-1,2-Dichloroethene	ND	4.2
2,2-Dichloropropane	ND	4.2
Chloroform	ND	4.2
Bromochloromethane	ND	4.2
1,1,1-Trichloroethane	ND	4.2
1,1-Dichloropropene	ND	4.2
Carbon Tetrachloride	ND	4.2
1,2-Dichloroethane	ND	4.2
Benzene	ND	4.2
Trichloroethene	ND	4.2
1,2-Dichloropropane	ND	4.2
Bromodichloromethane	ND	4.2
Dibromomethane	ND	4.2
4-Methyl-2-Pentanone	ND	8.5
cis-1,3-Dichloropropene	ND	4.2
Toluene	ND	4.2
trans-1,3-Dichloropropene	ND	4.2
1,1,2-Trichloroethane	ND	4.2
2-Hexanone	ND	8.5
1,3-Dichloropropane	ND	4.2
Tetrachloroethene	ND	4.2

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB5-7.5	Diln Fac:	0.8489
Lab ID:	213717-012	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

Analyte	Result	RL
Dibromochloromethane	ND	4.2
1,2-Dibromoethane	ND	4.2
Chlorobenzene	ND	4.2
1,1,1,2-Tetrachloroethane	ND	4.2
Ethylbenzene	ND	4.2
m,p-Xylenes	ND	4.2
o-Xylene	ND	4.2
Styrene	ND	4.2
Bromoform	ND	4.2
Isopropylbenzene	ND	4.2
1,1,2,2-Tetrachloroethane	ND	4.2
1,2,3-Trichloropropane	ND	4.2
Propylbenzene	ND	4.2
Bromobenzene	ND	4.2
1,3,5-Trimethylbenzene	ND	4.2
2-Chlorotoluene	ND	4.2
4-Chlorotoluene	ND	4.2
tert-Butylbenzene	ND	4.2
1,2,4-Trimethylbenzene	ND	4.2
sec-Butylbenzene	ND	4.2
para-Isopropyl Toluene	ND	4.2
1,3-Dichlorobenzene	ND	4.2
1,4-Dichlorobenzene	ND	4.2
n-Butylbenzene	ND	4.2
1,2-Dichlorobenzene	ND	4.2
1,2-Dibromo-3-Chloropropane	ND	4.2
1,2,4-Trichlorobenzene	ND	4.2
Hexachlorobutadiene	ND	4.2
Naphthalene	ND	4.2
1,2,3-Trichlorobenzene	ND	4.2

Surrogate	%REC	Limits
Dibromofluoromethane	100	71-128
1,2-Dichloroethane-d4	106	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	96	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB6-2.5	Diln Fac:	0.8013
Lab ID:	213717-014	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

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	20	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 Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB6-2.5	Diln Fac:	0.8013
Lab ID:	213717-014	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/27/09

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	99	71-128
1,2-Dichloroethane-d4	103	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	105	77-131

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB6-7.5	Diln Fac:	0.8666
Lab ID:	213717-015	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/28/09

Analyte	Result	RL
Freon 12	ND	8.7
Chloromethane	ND	8.7
Vinyl Chloride	ND	8.7
Bromomethane	ND	8.7
Chloroethane	ND	8.7
Trichlorofluoromethane	ND	4.3
Acetone	ND	17
Freon 113	ND	4.3
1,1-Dichloroethene	ND	4.3
Methylene Chloride	ND	17
Carbon Disulfide	ND	4.3
MTBE	ND	4.3
trans-1,2-Dichloroethene	ND	4.3
Vinyl Acetate	ND	43
1,1-Dichloroethane	ND	4.3
2-Butanone	ND	8.7
cis-1,2-Dichloroethene	ND	4.3
2,2-Dichloropropane	ND	4.3
Chloroform	ND	4.3
Bromochloromethane	ND	4.3
1,1,1-Trichloroethane	ND	4.3
1,1-Dichloropropene	ND	4.3
Carbon Tetrachloride	ND	4.3
1,2-Dichloroethane	ND	4.3
Benzene	ND	4.3
Trichloroethene	ND	4.3
1,2-Dichloropropane	ND	4.3
Bromodichloromethane	ND	4.3
Dibromomethane	ND	4.3
4-Methyl-2-Pentanone	ND	8.7
cis-1,3-Dichloropropene	ND	4.3
Toluene	ND	4.3
trans-1,3-Dichloropropene	ND	4.3
1,1,2-Trichloroethane	ND	4.3
2-Hexanone	ND	8.7
1,3-Dichloropropane	ND	4.3
Tetrachloroethene	ND	4.3

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	SB6-7.5	Diln Fac:	0.8666
Lab ID:	213717-015	Batch#:	153238
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/28/09

Analyte	Result	RL
Dibromochloromethane	ND	4.3
1,2-Dibromoethane	ND	4.3
Chlorobenzene	ND	4.3
1,1,1,2-Tetrachloroethane	ND	4.3
Ethylbenzene	ND	4.3
m,p-Xylenes	ND	4.3
o-Xylene	ND	4.3
Styrene	ND	4.3
Bromoform	ND	4.3
Isopropylbenzene	ND	4.3
1,1,2,2-Tetrachloroethane	ND	4.3
1,2,3-Trichloropropane	ND	4.3
Propylbenzene	ND	4.3
Bromobenzene	ND	4.3
1,3,5-Trimethylbenzene	ND	4.3
2-Chlorotoluene	ND	4.3
4-Chlorotoluene	ND	4.3
tert-Butylbenzene	ND	4.3
1,2,4-Trimethylbenzene	ND	4.3
sec-Butylbenzene	ND	4.3
para-Isopropyl Toluene	ND	4.3
1,3-Dichlorobenzene	ND	4.3
1,4-Dichlorobenzene	ND	4.3
n-Butylbenzene	ND	4.3
1,2-Dichlorobenzene	ND	4.3
1,2-Dibromo-3-Chloropropane	ND	4.3
1,2,4-Trichlorobenzene	ND	4.3
Hexachlorobutadiene	ND	4.3
Naphthalene	ND	4.3
1,2,3-Trichlorobenzene	ND	4.3

Surrogate	%REC	Limits
Dibromofluoromethane	103	71-128
1,2-Dichloroethane-d4	110	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	99	77-131

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505008	Batch#:	153238
Matrix:	Soil	Analyzed:	07/27/09
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 #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505008	Batch#:	153238
Matrix:	Soil	Analyzed:	07/27/09
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	71-128
1,2-Dichloroethane-d4	91	69-135
Toluene-d8	98	80-120
Bromofluorobenzene	96	77-131

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	153238
Units:	ug/Kg	Analyzed:	07/27/09
Diln Fac:	1.000		

Type: BS Lab ID: QC505009

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	18.17	91	73-135
Benzene	20.00	19.38	97	80-125
Trichloroethene	20.00	19.42	97	80-127
Toluene	20.00	19.82	99	80-126
Chlorobenzene	20.00	20.82	104	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	95	71-128
1,2-Dichloroethane-d4	89	69-135
Toluene-d8	99	80-120
Bromofluorobenzene	97	77-131

Type: BSD Lab ID: QC505010

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	17.38	87	73-135	4	20
Benzene	20.00	18.99	95	80-125	2	20
Trichloroethene	20.00	19.07	95	80-127	2	20
Toluene	20.00	19.32	97	80-126	3	20
Chlorobenzene	20.00	20.50	103	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	95	71-128
1,2-Dichloroethane-d4	90	69-135
Toluene-d8	99	80-120
Bromofluorobenzene	96	77-131

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 5035
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	153238
MSS Lab ID:	213762-005	Sampled:	07/27/09
Matrix:	Soil	Received:	07/27/09
Units:	ug/Kg	Analyzed:	07/28/09
Basis:	as received		

Type: MS Diln Fac: 0.9690
 Lab ID: QC505099

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.9653	48.45	41.41	85	58-145
Benzene	<0.9653	48.45	41.84	86	56-126
Trichloroethene	<0.9653	48.45	44.15	91	50-142
Toluene	<0.9653	48.45	42.38	87	52-125
Chlorobenzene	<0.9653	48.45	43.21	89	46-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	71-128
1,2-Dichloroethane-d4	108	69-135
Toluene-d8	99	80-120
Bromofluorobenzene	96	77-131

Type: MSD Diln Fac: 0.9671
 Lab ID: QC505100

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	48.36	42.42	88	58-145	3	28
Benzene	48.36	43.01	89	56-126	3	26
Trichloroethene	48.36	45.35	94	50-142	3	29
Toluene	48.36	43.27	89	52-125	2	29
Chlorobenzene	48.36	44.10	91	46-120	2	29

Surrogate	%REC	Limits
Dibromofluoromethane	101	71-128
1,2-Dichloroethane-d4	108	69-135
Toluene-d8	99	80-120
Bromofluorobenzene	97	77-131

RPD= Relative Percent Difference

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15.0

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB2-0-0.5	Batch#:	153244
Lab ID:	213717-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/27/09
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	670
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB2-0-0.5	Batch#:	153244
Lab ID:	213717-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/27/09
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	61	35-120
Phenol-d5	59	37-120
2,4,6-Tribromophenol	63	30-120
Nitrobenzene-d5	61	47-120
2-Fluorobiphenyl	69	52-120
Terphenyl-d14	87	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB2-2.5	Batch#:	153244
Lab ID:	213717-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
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	670
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB2-2.5	Batch#:	153244
Lab ID:	213717-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
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	70	35-120
Phenol-d5	71	37-120
2,4,6-Tribromophenol	66	30-120
Nitrobenzene-d5	63	47-120
2-Fluorobiphenyl	63	52-120
Terphenyl-d14	63	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB2-8.0	Batch#:	153244
Lab ID:	213717-003	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
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

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB2-8.0	Batch#:	153244
Lab ID:	213717-003	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
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	70	35-120
Phenol-d5	76	37-120
2,4,6-Tribromophenol	79	30-120
Nitrobenzene-d5	75	47-120
2-Fluorobiphenyl	83	52-120
Terphenyl-d14	87	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB3-0-0.5	Batch#:	153244
Lab ID:	213717-004	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	4.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	1,400
Phenol	ND	1,400
bis(2-Chloroethyl)ether	ND	1,400
2-Chlorophenol	ND	1,400
1,3-Dichlorobenzene	ND	1,400
1,4-Dichlorobenzene	ND	1,400
Benzyl alcohol	ND	1,400
1,2-Dichlorobenzene	ND	1,400
2-Methylphenol	ND	1,400
bis(2-Chloroisopropyl) ether	ND	1,400
4-Methylphenol	ND	1,400
N-Nitroso-di-n-propylamine	ND	1,400
Hexachloroethane	ND	1,400
Nitrobenzene	ND	1,400
Isophorone	ND	1,400
2-Nitrophenol	ND	2,700
2,4-Dimethylphenol	ND	1,400
Benzoic acid	ND	6,800
bis(2-Chloroethoxy)methane	ND	1,400
2,4-Dichlorophenol	ND	1,400
1,2,4-Trichlorobenzene	ND	1,400
Naphthalene	ND	270
4-Chloroaniline	ND	1,400
Hexachlorobutadiene	ND	1,400
4-Chloro-3-methylphenol	ND	1,400
2-Methylnaphthalene	ND	270
Hexachlorocyclopentadiene	ND	2,700
2,4,6-Trichlorophenol	ND	1,400
2,4,5-Trichlorophenol	ND	1,400
2-Chloronaphthalene	ND	1,400
2-Nitroaniline	ND	2,700
Dimethylphthalate	ND	1,400
Acenaphthylene	ND	270
2,6-Dinitrotoluene	ND	1,400
3-Nitroaniline	ND	2,700
Acenaphthene	ND	270
2,4-Dinitrophenol	ND	2,700
4-Nitrophenol	ND	2,700
Dibenzofuran	ND	1,400
2,4-Dinitrotoluene	ND	1,400
Diethylphthalate	ND	1,400
Fluorene	ND	270
4-Chlorophenyl-phenylether	ND	1,400
4-Nitroaniline	ND	2,700
4,6-Dinitro-2-methylphenol	ND	2,700
N-Nitrosodiphenylamine	ND	1,400
Azobenzene	ND	1,400
4-Bromophenyl-phenylether	ND	1,400
Hexachlorobenzene	ND	1,400
Pentachlorophenol	ND	2,700
Phenanthrene	ND	270
Anthracene	ND	270
Di-n-butylphthalate	ND	1,400

ND= Not Detected

RL= Reporting Limit

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB3-0-0.5	Batch#:	153244
Lab ID:	213717-004	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	4.000		

Analyte	Result	RL
Fluoranthene	ND	270
Pyrene	ND	270
Butylbenzylphthalate	ND	1,400
3,3'-Dichlorobenzidine	ND	2,700
Benzo(a)anthracene	ND	270
Chrysene	ND	270
bis(2-Ethylhexyl)phthalate	ND	1,400
Di-n-octylphthalate	ND	1,400
Benzo(b)fluoranthene	ND	270
Benzo(k)fluoranthene	ND	270
Benzo(a)pyrene	ND	270
Indeno(1,2,3-cd)pyrene	ND	270
Dibenz(a,h)anthracene	ND	270
Benzo(g,h,i)perylene	ND	270

Surrogate	%REC	Limits
2-Fluorophenol	70	35-120
Phenol-d5	66	37-120
2,4,6-Tribromophenol	57	30-120
Nitrobenzene-d5	69	47-120
2-Fluorobiphenyl	83	52-120
Terphenyl-d14	98	45-120

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

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB3-2.5	Batch#:	153244
Lab ID:	213717-005	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	66
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB3-2.5	Batch#:	153244
Lab ID:	213717-005	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	83	35-120
Phenol-d5	81	37-120
2,4,6-Tribromophenol	82	30-120
Nitrobenzene-d5	75	47-120
2-Fluorobiphenyl	74	52-120
Terphenyl-d14	76	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB3-8.0	Batch#:	153244
Lab ID:	213717-006	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
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

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB3-8.0	Batch#:	153244
Lab ID:	213717-006	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
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	78	35-120
Phenol-d5	60	37-120
2,4,6-Tribromophenol	76	30-120
Nitrobenzene-d5	63	47-120
2-Fluorobiphenyl	68	52-120
Terphenyl-d14	70	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB4-0-0.5	Batch#:	153244
Lab ID:	213717-007	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB4-0-0.5	Batch#:	153244
Lab ID:	213717-007	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	75	37-120
2,4,6-Tribromophenol	83	30-120
Nitrobenzene-d5	70	47-120
2-Fluorobiphenyl	78	52-120
Terphenyl-d14	75	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB4-2.5	Batch#:	153244
Lab ID:	213717-008	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	670
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB4-2.5	Batch#:	153244
Lab ID:	213717-008	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	77	35-120
Phenol-d5	76	37-120
2,4,6-Tribromophenol	80	30-120
Nitrobenzene-d5	70	47-120
2-Fluorobiphenyl	71	52-120
Terphenyl-d14	77	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB4-8.0	Batch#:	153244
Lab ID:	213717-009	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	670
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB4-8.0	Batch#:	153244
Lab ID:	213717-009	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	70	35-120
Phenol-d5	71	37-120
2,4,6-Tribromophenol	63	30-120
Nitrobenzene-d5	64	47-120
2-Fluorobiphenyl	64	52-120
Terphenyl-d14	68	45-120

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

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB5-0-0.5	Batch#:	153244
Lab ID:	213717-010	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	66
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB5-0-0.5	Batch#:	153244
Lab ID:	213717-010	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	73	37-120
2,4,6-Tribromophenol	75	30-120
Nitrobenzene-d5	70	47-120
2-Fluorobiphenyl	69	52-120
Terphenyl-d14	75	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB5-2.5	Batch#:	153244
Lab ID:	213717-011	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	670
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB5-2.5	Batch#:	153244
Lab ID:	213717-011	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	67	35-120
Phenol-d5	67	37-120
2,4,6-Tribromophenol	66	30-120
Nitrobenzene-d5	57	47-120
2-Fluorobiphenyl	62	52-120
Terphenyl-d14	66	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB5-7.5	Batch#:	153244
Lab ID:	213717-012	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	66
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB5-7.5	Batch#:	153244
Lab ID:	213717-012	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
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	73	35-120
Phenol-d5	73	37-120
2,4,6-Tribromophenol	68	30-120
Nitrobenzene-d5	66	47-120
2-Fluorobiphenyl	67	52-120
Terphenyl-d14	68	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB6-2.5	Batch#:	153244
Lab ID:	213717-014	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
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	670
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB6-2.5	Batch#:	153244
Lab ID:	213717-014	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
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	78	35-120
Phenol-d5	78	37-120
2,4,6-Tribromophenol	72	30-120
Nitrobenzene-d5	72	47-120
2-Fluorobiphenyl	72	52-120
Terphenyl-d14	72	45-120

ND= Not Detected
 RL= Reporting Limit
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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB6-7.5	Batch#:	153244
Lab ID:	213717-015	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
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	68	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
Phenanthrrene	200	66
Anthracene	71	66
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB6-7.5	Batch#:	153244
Lab ID:	213717-015	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/29/09
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	140	66
Pyrene	97	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	94	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	73	37-120
2,4,6-Tribromophenol	80	30-120
Nitrobenzene-d5	70	47-120
2-Fluorobiphenyl	70	52-120
Terphenyl-d14	70	45-120

ND= Not Detected
 RL= Reporting Limit
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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505033	Batch#:	153244
Matrix:	Soil	Prepared:	07/27/09
Units:	ug/Kg	Analyzed:	07/28/09

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
Phenanthrrene	ND	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330
Fluoranthene	ND	66

ND= Not Detected

RL= Reporting Limit

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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505033	Batch#:	153244
Matrix:	Soil	Prepared:	07/27/09
Units:	ug/Kg	Analyzed:	07/28/09

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	72	35-120
Phenol-d5	72	37-120
2,4,6-Tribromophenol	50	30-120
Nitrobenzene-d5	70	47-120
2-Fluorobiphenyl	70	52-120
Terphenyl-d14	68	45-120

ND= Not Detected
 RL= Reporting Limit
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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC505034	Batch#:	153244
Matrix:	Soil	Prepared:	07/27/09
Units:	ug/Kg	Analyzed:	07/29/09

Analyte	Spiked	Result	%REC	Limits
Phenol	1,054	831.9	79	37-120
2-Chlorophenol	1,054	824.6	78	44-120
1,4-Dichlorobenzene	1,054	822.5	78	51-120
N-Nitroso-di-n-propylamine	1,054	890.7	84	26-120
1,2,4-Trichlorobenzene	1,054	836.7	79	46-120
4-Chloro-3-methylphenol	1,054	830.6	79	48-120
Acenaphthene	395.4	264.3	67	50-120
4-Nitrophenol	1,054	829.8	79	39-120
2,4-Dinitrotoluene	1,054	856.5	81	50-120
Pentachlorophenol	1,054	571.1	54	26-120
Pyrene	395.4	322.4	82	47-120

Surrogate	%REC	Limits
2-Fluorophenol	82	35-120
Phenol-d5	82	37-120
2,4,6-Tribromophenol	81	30-120
Nitrobenzene-d5	83	47-120
2-Fluorobiphenyl	80	52-120
Terphenyl-d14	85	45-120

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB2-2.5	Batch#:	153244
MSS Lab ID:	213717-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Type: MS Lab ID: QC505035

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<66.40	1,066	912.3	86	42-120
2-Chlorophenol	<76.86	1,066	907.9	85	45-120
1,4-Dichlorobenzene	<83.30	1,066	882.7	83	50-120
N-Nitroso-di-n-propylamine	<65.70	1,066	989.6	93	35-120
1,2,4-Trichlorobenzene	<84.63	1,066	913.6	86	47-120
4-Chloro-3-methylphenol	<69.80	1,066	913.4	86	48-120
Acenaphthene	<15.18	399.7	310.1	78	49-120
4-Nitrophenol	<59.35	1,066	895.1	84	36-120
2,4-Dinitrotoluene	<72.37	1,066	904.7	85	48-120
Pentachlorophenol	<70.46	1,066	712.1	67	21-120
Pyrene	<12.85	399.7	365.4	91	40-120

Surrogate	%REC	Limits
2-Fluorophenol	84	35-120
Phenol-d5	85	37-120
2,4,6-Tribromophenol	85	30-120
Nitrobenzene-d5	85	47-120
2-Fluorobiphenyl	85	52-120
Terphenyl-d14	91	45-120

Type: MSD Lab ID: QC505036

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	1,074	856.2	80	42-120	7	34
2-Chlorophenol	1,074	847.2	79	45-120	8	34
1,4-Dichlorobenzene	1,074	792.8	74	50-120	11	33
N-Nitroso-di-n-propylamine	1,074	952.6	89	35-120	5	41
1,2,4-Trichlorobenzene	1,074	852.2	79	47-120	8	33
4-Chloro-3-methylphenol	1,074	857.3	80	48-120	7	33
Acenaphthene	402.7	292.2	73	49-120	7	32
4-Nitrophenol	1,074	838.5	78	36-120	7	40
2,4-Dinitrotoluene	1,074	857.4	80	48-120	6	33
Pentachlorophenol	1,074	548.8	51	21-120	27	48
Pyrene	402.7	341.6	85	40-120	7	33

Surrogate	%REC	Limits
2-Fluorophenol	81	35-120
Phenol-d5	81	37-120
2,4,6-Tribromophenol	77	30-120
Nitrobenzene-d5	82	47-120
2-Fluorobiphenyl	81	52-120
Terphenyl-d14	87	45-120

RPD= Relative Percent Difference

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB6-0-0.5	Batch#:	153378
Lab ID:	213717-013	Sampled:	07/23/09
Matrix:	Miscell.	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/30/09
Basis:	as received	Analyzed:	07/30/09
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	1,600
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Choronaphthalene	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	1,600
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	1,600
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	660
Phenanthrrene	240	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330

ND= Not Detected

RL= Reporting Limit

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Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	SB6-0-0.5	Batch#:	153378
Lab ID:	213717-013	Sampled:	07/23/09
Matrix:	Miscell.	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/30/09
Basis:	as received	Analyzed:	07/30/09
Diln Fac:	1.000		

Analyte	Result	RL
Fluoranthene	240	66
Pyrene	89	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	73	35-120
Phenol-d5	73	37-120
2,4,6-Tribromophenol	72	30-120
Nitrobenzene-d5	67	47-120
2-Fluorobiphenyl	77	52-120
Terphenyl-d14	104	45-120

ND= Not Detected
 RL= Reporting Limit
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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505560	Batch#:	153378
Matrix:	Soil	Prepared:	07/30/09
Units:	ug/Kg	Analyzed:	07/30/09

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	1,700
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	1,700
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	1,700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	660
Phenanthrrene	ND	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330
Fluoranthene	ND	66

ND= Not Detected

RL= Reporting Limit

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85.0

Batch QC Report
Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505560	Batch#:	153378
Matrix:	Soil	Prepared:	07/30/09
Units:	ug/Kg	Analyzed:	07/30/09

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	68	35-120
Phenol-d5	59	37-120
2,4,6-Tribromophenol	55	30-120
Nitrobenzene-d5	67	47-120
2-Fluorobiphenyl	70	52-120
Terphenyl-d14	82	45-120

ND= Not Detected
 RL= Reporting Limit
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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC505561	Batch#:	153378
Matrix:	Soil	Prepared:	07/30/09
Units:	ug/Kg	Analyzed:	07/30/09

Analyte	Spiked	Result	%REC	Limits
Phenol	2,664	2,175	82	37-120
2-Chlorophenol	2,664	2,256	85	44-120
1,4-Dichlorobenzene	2,664	2,330	87	51-120
N-Nitroso-di-n-propylamine	2,664	2,584	97	26-120
1,2,4-Trichlorobenzene	2,664	2,349	88	46-120
4-Chloro-3-methylphenol	2,664	2,469	93	48-120
Acenaphthene	999.0	798.5	80	50-120
4-Nitrophenol	2,664	2,014	76	39-120
2,4-Dinitrotoluene	2,664	2,463	92	50-120
Pentachlorophenol	2,664	1,977	74	26-120
Pyrene	999.0	1,001	100	47-120

Surrogate	%REC	Limits
2-Fluorophenol	84	35-120
Phenol-d5	83	37-120
2,4,6-Tribromophenol	89	30-120
Nitrobenzene-d5	84	47-120
2-Fluorobiphenyl	90	52-120
Terphenyl-d14	99	45-120

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB2-0-0.5	Batch#:	153220
Lab ID:	213717-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	14 C	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	9.0 C #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	78	44-126
Decachlorobiphenyl	49	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

C= Presence confirmed, but RPD between columns exceeds 40%

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB2-2.5	Batch#:	153220
Lab ID:	213717-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	77	44-126
Decachlorobiphenyl	52	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB2-8.0	Batch#:	153220
Lab ID:	213717-003	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	87	44-126
Decachlorobiphenyl	57	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB3-0-0.5	Batch#:	153220
Lab ID:	213717-004	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.5
beta-BHC	ND	8.5
gamma-BHC	ND	8.5
delta-BHC	ND	8.5
Heptachlor	ND	8.5
Aldrin	ND	8.5
Heptachlor epoxide	ND	8.5
Endosulfan I	ND	8.5
Dieldrin	ND	16
4,4'-DDE	ND	16
Endrin	ND	16
Endosulfan II	ND	16
Endosulfan sulfate	ND	16
4,4'-DDD	ND	16
Endrin aldehyde	ND	16
4,4'-DDT	ND #	16
alpha-Chlordane	ND	8.5
gamma-Chlordane	ND	8.5
Methoxychlor	ND #	85
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	104	44-126
Decachlorobiphenyl	58	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB3-2.5	Batch#:	153220
Lab ID:	213717-005	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	76	44-126
Decachlorobiphenyl	51	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB3-8.0	Batch#:	153220
Lab ID:	213717-006	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.2
4,4'-DDE	ND	3.2
Endrin	ND	3.2
Endosulfan II	ND	3.2
Endosulfan sulfate	ND	3.2
4,4'-DDD	ND	3.2
Endrin aldehyde	ND	3.2
4,4'-DDT	ND #	3.2
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	84	44-126
Decachlorobiphenyl	56	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB4-0-0.5	Batch#:	153220
Lab ID:	213717-007	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.2
4,4'-DDE	ND	3.2
Endrin	ND	3.2
Endosulfan II	ND	3.2
Endosulfan sulfate	ND	3.2
4,4'-DDD	ND	3.2
Endrin aldehyde	ND	3.2
4,4'-DDT	ND #	3.2
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	81	44-126
Decachlorobiphenyl	54	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB4-2.5	Batch#:	153220
Lab ID:	213717-008	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	85	44-126
Decachlorobiphenyl	49	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB4-8.0	Batch#:	153220
Lab ID:	213717-009	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	69	44-126
Decachlorobiphenyl	44	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB5-0-0.5	Batch#:	153220
Lab ID:	213717-010	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	76	44-126
Decachlorobiphenyl	51	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB5-2.5	Batch#:	153220
Lab ID:	213717-011	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	73	44-126
Decachlorobiphenyl	45	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB5-7.5	Batch#:	153220
Lab ID:	213717-012	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	88	44-126
Decachlorobiphenyl	55	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB6-2.5	Batch#:	153220
Lab ID:	213717-014	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	86	44-126
Decachlorobiphenyl	56	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB6-7.5	Batch#:	153220
Lab ID:	213717-015	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND #	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	86	44-126
Decachlorobiphenyl	45	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504907	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	82	44-126
Decachlorobiphenyl	57	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504908	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.34	10.22	77	45-121
Heptachlor	13.34	9.646	72	39-127
Aldrin	13.34	9.827	74	43-120
Dieldrin	26.68	19.11	72	43-126
Endrin	26.68	19.14	72	30-130
4,4'-DDT	26.68	19.80	74	41-133

Surrogate	%REC	Limits
TCMX	78	44-126
Decachlorobiphenyl	51	38-139

Batch QC Report

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	WC-RRA-072309	Batch#:	153220
MSS Lab ID:	213714-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504909

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.2956	13.37	11.32	85	41-132
Heptachlor	<0.2240	13.37	11.05	83	40-130
Aldrin	3.015	13.37	11.32	62	45-122
Dieldrin	<0.3596	26.75	20.74	78	45-130
Endrin	<0.4128	26.75	21.39	80	42-139
4,4'-DDT	0.9684	26.75	19.72 #	70	30-139

Surrogate	%REC	Limits
TCMX	82	44-126
Decachlorobiphenyl	53	38-139

Type: MSD Lab ID: QC504910

Analyte	Spiked	Result	%REC	Limits	RPD Lim
gamma-BHC	13.30	10.74	81	41-132	5 34
Heptachlor	13.30	10.87	82	40-130	1 39
Aldrin	13.30	11.21	62	45-122	0 32
Dieldrin	26.60	20.13	76	45-130	2 34
Endrin	26.60	20.80	78	42-139	2 40
4,4'-DDT	26.60	19.77 #	71	30-139	1 42

Surrogate	%REC	Limits
TCMX	81	44-126
Decachlorobiphenyl	49	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements
 RPD= Relative Percent Difference

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	SB6-0-0.5	Batch#:	153449
Lab ID:	213717-013	Sampled:	07/23/09
Matrix:	Miscell.	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/31/09
Basis:	as received	Analyzed:	08/03/09
Diln Fac:	1.000		

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	93	44-126
Decachlorobiphenyl	55	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505839	Batch#:	153449
Matrix:	Soil	Prepared:	07/31/09
Units:	ug/Kg	Analyzed:	08/03/09

Cleanup Method: EPA 3620B

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	60

Surrogate	%REC	Limits
TCMX	86	44-126
Decachlorobiphenyl	47	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Organochlorine Pesticides

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC505840	Batch#:	153449
Matrix:	Soil	Prepared:	07/31/09
Units:	ug/Kg	Analyzed:	08/03/09

Cleanup Method: EPA 3620B

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.13	10.26	78	45-121
Heptachlor	13.13	9.341	71	39-127
Aldrin	13.13	10.25	78	43-120
Dieldrin	26.26	20.01	76	43-126
Endrin	26.26	19.90	76	30-130
4,4'-DDT	26.26	12.73 #	49	41-133

Surrogate	%REC	Limits
TCMX	87	44-126
Decachlorobiphenyl	48	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	153220
Units:	ug/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/25/09

Field ID: SB2-0-0.5 Lab ID: 213717-001
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	410	12
Aroclor-1260	44	12

Surrogate	%REC	Limits
TCMX	115	68-136
Decachlorobiphenyl	49 *	52-140

Field ID: SB2-2.5 Lab ID: 213717-002
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	100	68-136
Decachlorobiphenyl	41 *	52-140

Field ID: SB2-8.0 Lab ID: 213717-003
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	102	68-136
Decachlorobiphenyl	45 *	52-140

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	153220
Units:	ug/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/25/09

Field ID: SB3-0-0.5 Lab ID: 213717-004
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	100	68-136
Decachlorobiphenyl	46 *	52-140

Field ID: SB3-2.5 Lab ID: 213717-005
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	93	68-136
Decachlorobiphenyl	37 *	52-140

Field ID: SB3-8.0 Lab ID: 213717-006
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	127	68-136
Decachlorobiphenyl	63	52-140

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	153220
Units:	ug/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/25/09

Field ID: SB4-0-0.5 Lab ID: 213717-007
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	112	68-136
Decachlorobiphenyl	54	52-140

Field ID: SB4-2.5 Lab ID: 213717-008
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	95	68-136
Decachlorobiphenyl	41 *	52-140

Field ID: SB4-8.0 Lab ID: 213717-009
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	93	68-136
Decachlorobiphenyl	38 *	52-140

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	153220
Units:	ug/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/25/09

Field ID: SB5-0-0.5 Lab ID: 213717-010
 Type: SAMPLE Analyzed: 07/29/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	108	68-136
Decachlorobiphenyl	53	52-140

Field ID: SB5-2.5 Lab ID: 213717-011
 Type: SAMPLE Analyzed: 07/30/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	94	68-136
Decachlorobiphenyl	47 *	52-140

Field ID: SB5-7.5 Lab ID: 213717-012
 Type: SAMPLE Analyzed: 07/30/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	114	68-136
Decachlorobiphenyl	53	52-140

*= Value outside of QC limits; see narrative
 ND= Not Detected

RL= Reporting Limit

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Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Matrix:	Soil	Batch#:	153220
Units:	ug/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/25/09

Field ID: SB6-2.5 Lab ID: 213717-014
 Type: SAMPLE Analyzed: 07/30/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	101	68-136
Decachlorobiphenyl	50 *	52-140

Field ID: SB6-7.5 Lab ID: 213717-015
 Type: SAMPLE Analyzed: 07/30/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	97	68-136
Decachlorobiphenyl	44 *	52-140

Type: BLANK Analyzed: 07/28/09
 Lab ID: QC504907

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	105	68-136
Decachlorobiphenyl	64	52-140

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504911	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/28/09

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	165.6	195.9	118	76-140
Aroclor-1260	165.6	205.8	124	77-141

Surrogate	%REC	Limits
TCMX	110	68-136
Decachlorobiphenyl	63	52-140

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Field ID:	WC-RRA-072309	Batch#:	153220
MSS Lab ID:	213714-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/30/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504912

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	<0.5863	165.5	168.8	102	63-153
Aroclor-1260	6.358	165.5	153.8	89	47-145

Surrogate	%REC	Limits
TCMX	106	68-136
Decachlorobiphenyl	45 *	52-140

Type: MSD Lab ID: QC504913

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	164.9	175.7	107	63-153	4	28
Aroclor-1260	164.9	168.0	98	47-145	9	30

Surrogate	%REC	Limits
TCMX	104	68-136
Decachlorobiphenyl	51 *	52-140

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Field ID:	SB6-0-0.5	Batch#:	153300
Units:	ug/Kg	Sampled:	07/23/09
Basis:	as received	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/28/09

Type: SAMPLE Matrix: Miscell.
 Lab ID: 213717-013 Analyzed: 07/30/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	119	68-136
Decachlorobiphenyl	68	52-140

Type: BLANK Matrix: Soil
 Lab ID: QC505256 Analyzed: 07/31/09

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	109	68-136
Decachlorobiphenyl	61	52-140

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC505257	Batch#:	153300
Matrix:	Soil	Prepared:	07/28/09
Units:	ug/Kg	Analyzed:	07/31/09

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	166.1	205.3	124	76-140
Aroclor-1260	166.1	211.8	128	77-141

Surrogate	%REC	Limits
TCMX	129	68-136
Decachlorobiphenyl	77	52-140

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Field ID:	ZZZZZZZZZZ	Batch#:	153300
MSS Lab ID:	213704-002	Sampled:	07/22/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/28/09
Basis:	as received	Analyzed:	08/05/09
Diln Fac:	1.000		

Type: MS Lab ID: QC505261

Analyte	MSS Result	Spiked	Result	%REC	Limits
Aroclor-1016	<0.3719	166.2	211.6	127	63-153
Aroclor-1260	432.9	166.2	476.7	26 *	47-145

Surrogate	%REC	Limits
TCMX	114	68-136
Decachlorobiphenyl	58	52-140

Type: MSD Lab ID: QC505262

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Aroclor-1016	166.2	197.6	119	63-153	7	28
Aroclor-1260	166.2	483.1	30 *	47-145	1	30

Surrogate	%REC	Limits
TCMX	100	68-136
Decachlorobiphenyl	71	52-140

*= Value outside of QC limits; see narrative

RPD= Relative Percent Difference

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB2-0-0.5	Basis:	as received
Lab ID:	213717-001	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	3.9	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	100	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.35	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	30	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	4.4	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	18	0.26	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	17	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.18	0.021	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.29	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	18	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	33	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	32	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB2-2.5	Basis:	as received
Lab ID:	213717-002	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	2.4	0.25	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Barium	89	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.36	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	37	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	16	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	12	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	6.4	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.035	0.022	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	22	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	26	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	22	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB2-8.0	Basis:	as received
Lab ID:	213717-003	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	7.8	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	160	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.32	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	38	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	9.8	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	18	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	3.3	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	ND	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.69	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	57	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	42	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	36	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB3-0-0.5	Basis:	as received
Lab ID:	213717-004	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	mg/Kg		

Analyte	Result	RL	Diln	Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.79	0.50	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Arsenic	9.0	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Barium	550	2.3	10.00	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B	
Beryllium	0.61	0.10	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Cadmium	ND	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Chromium	29	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Cobalt	72	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Copper	18	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Lead	39	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Mercury	0.075	0.020	1.000	153323	07/29/09	07/29/09	METHOD	EPA 7471A	
Molybdenum	0.67	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Nickel	41	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Selenium	1.9	0.50	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Silver	ND	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Thallium	ND	0.50	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Vanadium	41	0.25	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	
Zinc	26	1.0	1.000	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B	

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB3-2.5	Basis:	as received
Lab ID:	213717-005	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	2.5	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	84	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.32	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	31	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	4.8	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	11	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	4.2	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.022	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	19	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	21	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	20	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

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California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB3-8.0	Basis:	as received
Lab ID:	213717-006	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	3.5	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	120	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.59	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	42	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	11	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	23	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	5.9	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.061	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	61	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	25	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	49	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB4-0-0.5	Basis:	as received
Lab ID:	213717-007	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	5.7	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	210	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.43	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	31	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	21	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	13	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	9.7	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.24	0.021	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.47	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	24	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	43	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	22	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB4-2.5	Basis:	as received
Lab ID:	213717-008	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	2.9	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	80	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.32	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	33	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	6.9	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	11	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	6.4	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.057	0.021	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	ND	0.25	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Nickel	19	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	26	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	23	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB4-8.0	Basis:	as received
Lab ID:	213717-009	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	4.4	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	180	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.53	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	50	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	11	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	22	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	6.9	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.026	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.40	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	57	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	35	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	48	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB5-0-0.5	Basis:	as received
Lab ID:	213717-010	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	3.6	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	140	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.33	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	29	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	6.2	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	11	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	7.0	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.18	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.32	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	19	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	28	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	20	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB5-2.5	Basis:	as received
Lab ID:	213717-011	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	2.5	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	89	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.46	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	38	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	3.0	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	9.5	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	3.9	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.074	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	21	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	26	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	19	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB5-7.5	Basis:	as received
Lab ID:	213717-012	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Arsenic	6.4	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	210	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.56	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	51	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	15	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	25	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	6.5	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.087	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.36	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	68	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	39	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	51	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB6-2.5	Basis:	as received
Lab ID:	213717-014	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	0.83	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	3.8	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	80	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.45	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	13	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	10	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	19	0.26	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	5.6	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.077	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.48	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	20	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	2.0	0.50	153216	07/24/09	07/28/09	EPA 3050B	EPA 6010B
Vanadium	53	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	42	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB6-7.5	Basis:	as received
Lab ID:	213717-015	Diln Fac:	1.000
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Arsenic	3.5	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Barium	160	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Beryllium	0.46	0.10	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Chromium	49	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Cobalt	14	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Copper	20	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Lead	9.4	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Mercury	0.16	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	0.40	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Nickel	59	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Vanadium	38	0.25	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B
Zinc	35	1.0	153216	07/24/09	07/27/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504884	Batch#:	153216
Matrix:	Soil	Prepared:	07/24/09
Units:	mg/Kg	Analyzed:	07/27/09

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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Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	153216
Units:	mg/Kg	Prepared:	07/24/09
Diln Fac:	1.000	Analyzed:	07/27/09

Type: BS Lab ID: QC504885

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	93.35	93	80-120
Arsenic	50.00	47.09	94	80-120
Barium	100.0	95.97	96	80-120
Beryllium	2.500	2.620	105	80-120
Cadmium	10.00	9.708	97	80-120
Chromium	100.0	98.05	98	80-120
Cobalt	25.00	23.47	94	80-120
Copper	12.50	12.17	97	80-120
Lead	100.0	93.28	93	80-120
Molybdenum	20.00	18.97	95	80-120
Nickel	25.00	23.82	95	80-120
Selenium	50.00	46.54	93	80-120
Silver	10.00	9.540	95	80-120
Thallium	50.00	45.00	90	80-120
Vanadium	25.00	24.94	100	80-120
Zinc	25.00	22.99	92	80-120

Type: BSD Lab ID: QC504886

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	92.72	93	80-120	1	20
Arsenic	50.00	46.26	93	80-120	2	20
Barium	100.0	94.50	95	80-120	2	20
Beryllium	2.500	2.549	102	80-120	3	20
Cadmium	10.00	9.526	95	80-120	2	20
Chromium	100.0	95.96	96	80-120	2	20
Cobalt	25.00	23.01	92	80-120	2	20
Copper	12.50	11.85	95	80-120	3	20
Lead	100.0	92.04	92	80-120	1	20
Molybdenum	20.00	18.87	94	80-120	1	20
Nickel	25.00	23.55	94	80-120	1	20
Selenium	50.00	45.83	92	80-120	2	20
Silver	10.00	9.398	94	80-120	1	20
Thallium	50.00	44.36	89	80-120	1	20
Vanadium	25.00	24.49	98	80-120	2	20
Zinc	25.00	22.45	90	80-120	2	20

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	153216
MSS Lab ID:	213698-003	Sampled:	07/21/09
Matrix:	Soil	Received:	07/22/09
Units:	mg/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/27/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504887

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<0.1573	90.91	36.39	40	5-120
Arsenic	2.688	45.45	42.81	88	65-120
Barium	109.8	90.91	191.9	90	40-141
Beryllium	0.4046	2.273	2.662	99	75-120
Cadmium	0.1452	9.091	8.154	88	63-120
Chromium	24.08	90.91	108.4	93	52-128
Cobalt	5.837	22.73	25.32	86	50-120
Copper	8.863	11.36	19.59	94	38-149
Lead	4.535	90.91	82.51	86	49-124
Molybdenum	0.3519	18.18	14.49	78	62-120
Nickel	28.42	22.73	48.07	86	34-148
Selenium	<0.1448	45.45	38.25	84	63-120
Silver	<0.07401	9.091	8.331	92	66-120
Thallium	<0.1614	45.45	36.03	79	57-120
Vanadium	26.16	22.73	47.10	92	41-146
Zinc	32.45	22.73	51.30	83	25-159

Type: MSD Lab ID: QC504888

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Antimony	89.29	35.64	40	5-120	0 31
Arsenic	44.64	42.50	89	65-120	1 24
Barium	89.29	190.9	91	40-141	0 31
Beryllium	2.232	2.671	102	75-120	2 21
Cadmium	8.929	8.155	90	63-120	2 20
Chromium	89.29	108.3	94	52-128	1 25
Cobalt	22.32	25.06	86	50-120	0 26
Copper	11.16	19.68	97	38-149	1 28
Lead	89.29	81.68	86	49-124	1 31
Molybdenum	17.86	14.27	78	62-120	0 20
Nickel	22.32	48.70	91	34-148	2 30
Selenium	44.64	37.90	85	63-120	1 20
Silver	8.929	8.288	93	66-120	1 20
Thallium	44.64	35.81	80	57-120	1 20
Vanadium	22.32	46.98	93	41-146	1 24
Zinc	22.32	51.55	86	25-159	1 33

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	153323
Lab ID:	QC505352	Prepared:	07/29/09
Matrix:	Soil	Analyzed:	07/29/09
Units:	mg/Kg		

Result	RL
ND	0.020

ND= Not Detected

RL= Reporting Limit

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Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	153323
Matrix:	Soil	Prepared:	07/29/09
Units:	mg/Kg	Analyzed:	07/29/09
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC505353	0.5000	0.5150	103	80-120		
BSD	QC505354	0.5000	0.5050	101	80-120	2	20

RPD= Relative Percent Difference

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38.0

Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	SB1-0-0.5	Batch#:	153323
MSS Lab ID:	213721-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	mg/Kg	Prepared:	07/29/09
Basis:	as received	Analyzed:	07/29/09

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC505355	0.2426	0.4808	0.7904	114	64-138		
MSD	QC505356		0.4717	0.8142	121	64-138	4	27

RPD= Relative Percent Difference

Page 1 of 1

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California Title 22 Metals

Lab #:	213717	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St .RFS,Richmond CA
Field ID:	SB6-0-0.5	Basis:	as received
Lab ID:	213717-013	Diln Fac:	1.000
Matrix:	Miscell.	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	3.8	0.50	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Arsenic	0.74	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Barium	33	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Beryllium	0.38	0.10	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Chromium	9.0	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Cobalt	25	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Copper	35	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Lead	ND	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Mercury	0.075	0.020	153323	07/29/09	07/29/09	METHOD	EPA 7471A
Molybdenum	ND	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Nickel	26	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Thallium	7.9	0.50	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Vanadium	160	0.25	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B
Zinc	61	1.0	153274	07/27/09	07/28/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

Batch QC Report
California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505151	Batch#:	153274
Matrix:	Soil	Prepared:	07/27/09
Units:	mg/Kg	Analyzed:	07/28/09

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

Batch QC Report
California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	153274
Units:	mg/Kg	Prepared:	07/27/09
Diln Fac:	1.000	Analyzed:	07/28/09

Type: BS Lab ID: QC505152

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	101.3	101	80-120
Arsenic	50.00	50.21	100	80-120
Barium	100.0	101.6	102	80-120
Beryllium	2.500	2.632	105	80-120
Cadmium	10.00	10.25	103	80-120
Chromium	100.0	100.2	100	80-120
Cobalt	25.00	24.53	98	80-120
Copper	12.50	12.45	100	80-120
Lead	100.0	99.49	99	80-120
Molybdenum	20.00	20.78	104	80-120
Nickel	25.00	24.66	99	80-120
Selenium	50.00	50.02	100	80-120
Silver	10.00	9.813	98	80-120
Thallium	50.00	49.46	99	80-120
Vanadium	25.00	25.24	101	80-120
Zinc	25.00	24.32	97	80-120

Type: BSD Lab ID: QC505153

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	99.47	99	80-120	2	20
Arsenic	50.00	48.94	98	80-120	3	20
Barium	100.0	99.35	99	80-120	2	20
Beryllium	2.500	2.574	103	80-120	2	20
Cadmium	10.00	10.02	100	80-120	2	20
Chromium	100.0	97.61	98	80-120	3	20
Cobalt	25.00	23.97	96	80-120	2	20
Copper	12.50	12.23	98	80-120	2	20
Lead	100.0	97.25	97	80-120	2	20
Molybdenum	20.00	20.34	102	80-120	2	20
Nickel	25.00	24.01	96	80-120	3	20
Selenium	50.00	48.79	98	80-120	2	20
Silver	10.00	9.681	97	80-120	1	20
Thallium	50.00	48.44	97	80-120	2	20
Vanadium	25.00	24.60	98	80-120	3	20
Zinc	25.00	23.82	95	80-120	2	20

RPD= Relative Percent Difference

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Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	153274
MSS Lab ID:	213725-001	Sampled:	07/17/09
Matrix:	Miscell.	Received:	07/22/09
Units:	mg/Kg	Prepared:	07/27/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Type: MS

Lab ID:

QC505154

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	0.7785	92.59	26.41	28	5-120
Arsenic	0.4164	46.30	45.68	98	65-120
Barium	105.5	92.59	181.5	82	40-141
Beryllium	0.4415	2.315	2.853	104	75-120
Cadmium	0.07208	9.259	9.534	102	63-120
Chromium	1.813	92.59	88.23	93	52-128
Cobalt	0.9463	23.15	23.37	97	50-120
Copper	4.896	11.57	14.44	82	38-149
Lead	3.378	92.59	91.06	95	49-124
Molybdenum	0.6611	18.52	17.93	93	62-120
Nickel	2.673	23.15	25.47	98	34-148
Selenium	0.4430	46.30	48.69	104	63-120
Silver	<0.07258	9.259	8.125	88	66-120
Thallium	0.4393	46.30	36.48	78	57-120
Vanadium	7.790	23.15	28.53	90	41-146
Zinc	7.949	23.15	29.63	94	25-159

Type : MSD

Lab ID:

QC505155

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	89.29	24.59	27	5-120	4	31
Arsenic	44.64	41.80	93	65-120	5	24
Barium	89.29	175.6	78	40-141	2	31
Beryllium	2.232	2.485	92	75-120	11	21
Cadmium	8.929	8.581	95	63-120	7	20
Chromium	89.29	79.16	87	52-128	7	25
Cobalt	22.32	20.79	89	50-120	8	26
Copper	11.16	12.82	71	38-149	9	28
Lead	89.29	82.66	89	49-124	6	31
Molybdenum	17.86	15.90	85	62-120	8	20
Nickel	22.32	22.56	89	34-148	9	30
Selenium	44.64	44.57	99	63-120	5	20
Silver	8.929	7.824	88	66-120	0	20
Thallium	44.64	33.75	75	57-120	4	20
Vanadium	22.32	25.75	80	41-146	8	24
Zinc	22.32	24.19	73	25-159	18	33

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	153323
Lab ID:	QC505352	Prepared:	07/29/09
Matrix:	Soil	Analyzed:	07/29/09
Units:	mg/Kg		

Result	RL
ND	0.020

ND= Not Detected

RL= Reporting Limit

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40.0

Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	153323
Matrix:	Soil	Prepared:	07/29/09
Units:	mg/Kg	Analyzed:	07/29/09
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC505353	0.5000	0.5150	103	80-120		
BSD	QC505354	0.5000	0.5050	101	80-120	2	20

RPD= Relative Percent Difference

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41.0

Batch QC Report

California Title 22 Metals

Lab #:	213717	Location:	Meade St .RFS,Richmond CA
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	SB1-0-0.5	Batch#:	153323
MSS Lab ID:	213721-001	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	mg/Kg	Prepared:	07/29/09
Basis:	as received	Analyzed:	07/29/09

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC505355	0.2426	0.4808	0.7904	114	64-138		
MSD	QC505356		0.4717	0.8142	121	64-138	4	27

RPD= Relative Percent Difference

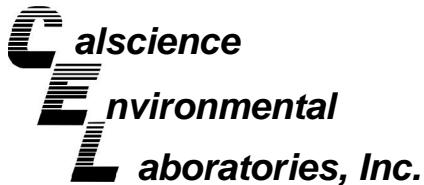
Page 1 of 1

42.0

Laboratory Job Number 213717

Subcontracted Products

Cal Science



August 12, 2009

Lisa Brooker
Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Subject: **Calscience Work Order No.: 09-07-2261**
Client Reference: 213717

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/29/2009 and analyzed in accordance with the attached chain-of-custody.

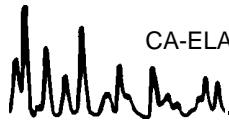
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Vikas Patel".

Calscience Environmental
Laboratories, Inc.
Vikas Patel
Project Manager



CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/29/09
Work Order No: 09-07-2261
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213717

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB6-0-0.5	09-07-2261-1-A	07/23/09 12:35	Solid	GC 40	07/30/09	08/05/09 22:12	090730L09

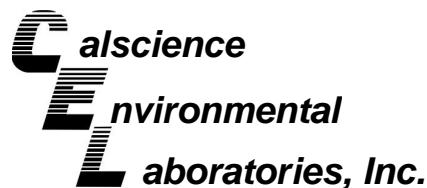
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	88	30-130							

Method Blank	095-01-033-852-A	N/A	Solid	GC 40	07/30/09	08/05/09 11:26	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	93	30-130							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Quality Control - LCS/LCS Duplicate



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

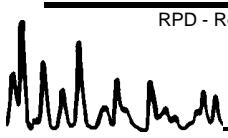
Date Received: N/A
Work Order No: 09-07-2261
Preparation: EPA 8151A
Method: EPA 8151A

Project: 213717

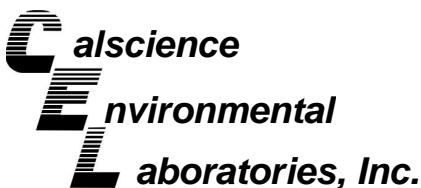
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-033-852	Solid	GC 40	07/30/09	08/05/09	090730L09

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
2,4-D	105	104	30-130	1	0-30	
2,4,5-T	98	97	30-130	1	0-30	
2,4-DB	107	106	30-130	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit



7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501

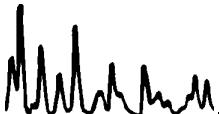


Glossary of Terms and Qualifiers



Work Order Number: 09-07-2261

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



Curtis & Tompkins, Ltd.
 Analytical Laboratories, Since 1878
 2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900
 (510) 486-0532

Project Number: 213717
 Site: Meade St .RFS, Richmond CA

Subcontract Laboratory:

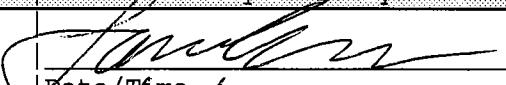
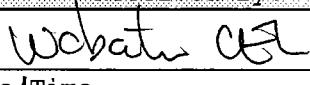
Cal Science
 7440 Lincoln Way
 Garden Grove, CA 92841-1432
 (714) 895-5494
 ATTN: Vik Patel

Results due: Report Level: II

Please send report to: Lisa Brooker (lisa@ctberk.com)
 *** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
SB2-0-0.5	07/23 09:10	Soil	8150	213717-001	
SB2-2.5	07/23 09:20	Soil	8150	213717-002	
SB2-8.0	07/23 09:30	Soil	8150	213717-003	
SB3-0-0.5	07/23 09:55	Soil	8150	213717-004	
SB3-2.5	07/23 10:00	Soil	8150	213717-005	
SB3-8.0	07/23 10:15	Soil	8150	213717-006	
SB4-0-0.5	07/23 10:30	Soil	8150	213717-007	
SB4-2.5	07/23 10:35	Soil	8150	213717-008	
SB4-8.0	07/23 10:50	Soil	8150	213717-009	
SB5-0-0.5	07/23 11:10	Soil	8150	213717-010	
SB5-2.5	07/23 11:20	Soil	8150	213717-011	
SB5-7.5	07/23 11:35	Soil	8150	213717-012	
SB6-0-0.5	07/23 12:35	Miscell.	8150	213717-013	
SB6-2.5	07/23 12:40	Soil	8150	213717-014	
SB6-7.5	07/23 13:00	Soil	8150	213717-015	

* ONLY 18 SAMPLES

Notes:	Relinquished By:	Received By:
		
	Date/Time: 7/29/09 1500 ONTRAC	Date/Time: 7/29/09 0830

Signature on this form constitutes a firm Purchase Order for the services requested above.

Page 1 of 1

SAMPLE RECEIPT FORM Cooler 1 of 1

CLIENT: C+T

DATE: 7/29/09

TEMPERATURE: (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.9 °C - 0.2 °C (CF) = 2.7 °C Blank Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: _____).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
- Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Metals Only PCBs Only

Initial: WB

CUSTODY SEALS INTACT:

<input type="checkbox"/> Cooler	<input type="checkbox"/>	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial: <u>WB</u>
<input type="checkbox"/> Sample	<input type="checkbox"/>	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/>	Initial: <u>PS</u>

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collection date/time, matrix, and/or # of containers logged in based on sample labels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved vials received for Volatiles analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volatile analysis container(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

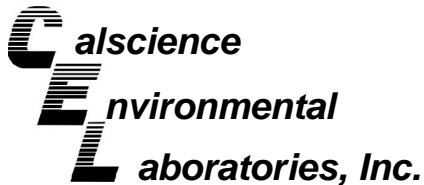
CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores® TerraCores® 2ozCGJ
Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs
 500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna
 250PB 250PBn 125PB 125PBznna 100PJ 100PJna₂

Air: Tedlar® Summa® Other: Checked/Labeled by: PS

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop Reviewed by: YL

Preservative: H: HCL N: HNO₃ Na₂:Na₂S₂O₃ Na: NaOH p: H₃PO₄ S: H₂SO₄ znna: ZnAc₂+NaOH f: Field-filtered Scanned by: PS



August 11, 2009

Lisa Brooker
Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Subject: **Calscience Work Order No.: 09-07-2171**
Client Reference: 213717

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/28/2009 and analyzed in accordance with the attached chain-of-custody.

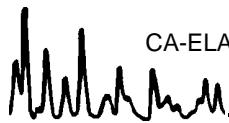
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Vikas Patel

Calscience Environmental
Laboratories, Inc.
Vikas Patel
Project Manager



CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/28/09
Work Order No: 09-07-2171
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213717

Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB2-0-0.5	09-07-2171-1-A	07/23/09 09:10	Solid	GC 40	07/30/09	08/05/09 14:40	090730L09

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	154	30-130		2					

SB2-2.5	09-07-2171-2-A	07/23/09 09:20	Solid	GC 40	07/30/09	08/05/09 15:12	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	90	30-130							

SB2-8.0	09-07-2171-3-A	07/23/09 09:30	Solid	GC 40	07/30/09	08/05/09 15:44	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	87	30-130							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/28/09
Work Order No: 09-07-2171
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213717

Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB3-0-0.5	09-07-2171-4-A	07/23/09 09:55	Solid	GC 40	07/30/09	08/05/09 16:17	090730L09

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	64	30-130							

SB3-2.5	09-07-2171-5-A	07/23/09 10:00	Solid	GC 40	07/30/09	08/05/09 16:49	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	107	30-130							

SB3-8.0	09-07-2171-6-A	07/23/09 10:15	Solid	GC 40	07/30/09	08/05/09 17:21	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	102	30-130							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/28/09
Work Order No: 09-07-2171
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213717

Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB4-0-0.5	09-07-2171-7-A	07/23/09 10:30	Solid	GC 40	07/30/09	08/05/09 17:54	090730L09

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	92	30-130							

SB4-2.5	09-07-2171-8-A	07/23/09 10:35	Solid	GC 40	07/30/09	08/05/09 18:26	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	92	30-130							

SB4-8.0	09-07-2171-9-A	07/23/09 10:50	Solid	GC 40	07/30/09	08/05/09 18:58	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	107	30-130							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/28/09
Work Order No: 09-07-2171
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213717

Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB5-0-0.5	09-07-2171-10-A	07/23/09 11:10	Solid	GC 40	07/30/09	08/05/09 19:31	090730L09

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	73	30-130							

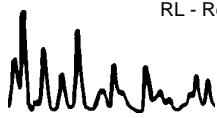
SB5-2.5	09-07-2171-11-A	07/23/09 11:20	Solid	GC 40	07/30/09	08/05/09 20:03	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	96	30-130							

SB5-7.5	09-07-2171-12-A	07/23/09 11:35	Solid	GC 40	07/30/09	08/05/09 20:35	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	187	30-130		2					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/28/09
Work Order No: 09-07-2171
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213717

Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SB6-2.5	09-07-2171-13-A	07/23/09 12:40	Solid	GC 40	07/30/09	08/05/09 21:08	090730L09

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	120	30-130							

SB6-7.5	09-07-2171-14-A	07/23/09 13:00	Solid	GC 40	07/30/09	08/05/09 21:40	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	93	30-130							

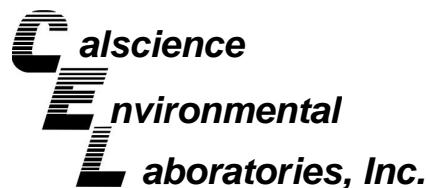
Method Blank	095-01-033-852-A	N/A	Solid	GC 40	07/30/09	08/05/09 11:26	090730L09
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	93	30-130							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



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Quality Control - LCS/LCS Duplicate



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

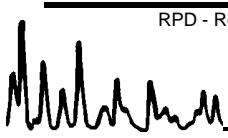
Date Received: N/A
Work Order No: 09-07-2171
Preparation: EPA 8151A
Method: EPA 8151A

Project: 213717

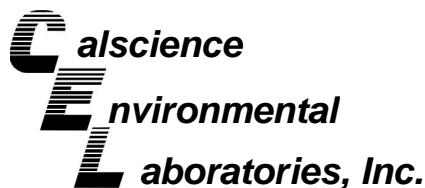
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-033-852	Solid	GC 40	07/30/09	08/05/09	090730L09

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
2,4-D	105	104	30-130	1	0-30	
2,4,5-T	98	97	30-130	1	0-30	
2,4-DB	107	106	30-130	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit



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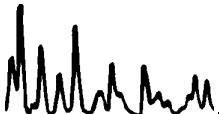


Glossary of Terms and Qualifiers



Work Order Number: 09-07-2171

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



Curtis & Tompkins, Ltd.
 Analytical Laboratories, Since 1878
 2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900
 (510) 486-0532

Project Number: 213717
 Site: Meade St .RFS,Richmond CA

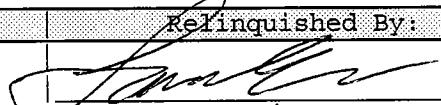
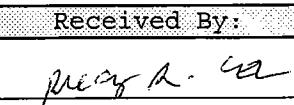
Subcontract Laboratory:

Cal Science
 7440 Lincoln Way
 Garden Grove, CA 92841-1432
 (714) 895-5494
 ATTN: Vik Patel

Results due: Report Level: II

Please send report to: Lisa Brooker (lisa@ctberk.com)
 *** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
SB2-0-0.5	07/23 09:10	Soil	8150	213717-001	
SB2-2.5	07/23 09:20	Soil	8150	213717-002	
SB2-8.0	07/23 09:30	Soil	8150	213717-003	
SB3-0-0.5	07/23 09:55	Soil	8150	213717-004	
SB3-2.5	07/23 10:00	Soil	8150	213717-005	
SB3-8.0	07/23 10:15	Soil	8150	213717-006	
SB4-0-0.5	07/23 10:30	Soil	8150	213717-007	
SB4-2.5	07/23 10:35	Soil	8150	213717-008	
SB4-8.0	07/23 10:50	Soil	8150	213717-009	
SB5-0-0.5	07/23 11:10	Soil	8150	213717-010	
SB5-2.5	07/23 11:20	Soil	8150	213717-011	
SB5-7.5	07/23 11:35	Soil	8150	213717-012	
SB6-2.5	07/23 12:40	Soil	8150	213717-014	
SB6-7.5	07/23 13:00	Soil	8150	213717-015	

Notes:	Relinquished By:	Received By:
		
	Date/Time: 7/27/09 1300	Date/Time: 10:00 7/28/09
	C&T/LAC	

Signature on this form constitutes a firm Purchase Order for the services requested above.

SAMPLE RECEIPT FORMCooler 1 of 1CLIENT: CURTIS & TOMPKINSDATE: 07/28/09**TEMPERATURE:** (Criteria: 0.0 °C – 6.0 °C, not frozen)Temperature 4.2 °C - 0.2 °C (CF) = 4.0 °C Blank Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: _____).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
- Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Metals Only PCBs OnlyInitial: RS**CUSTODY SEALS INTACT:**

<input type="checkbox"/> Cooler	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial: <u>RS</u>
<input type="checkbox"/> Sample	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial: <u>RS</u>

SAMPLE CONDITION:

Yes No N/A

Chain-Of-Custody (COC) document(s) received with samples..... COC document(s) received complete.....

- Collection date/time, matrix, and/or # of containers logged in based on sample labels.
- COC not relinquished. No date relinquished. No time relinquished.

Sampler's name indicated on COC..... Sample container label(s) consistent with COC..... Sample container(s) intact and good condition..... Correct containers and volume for analyses requested..... Analyses received within holding time..... Proper preservation noted on COC or sample container..... Unpreserved vials received for Volatiles analysisVolatile analysis container(s) free of headspace..... Tedlar bag(s) free of condensation..... **CONTAINER TYPE:****Solid:** 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores® TerraCores® _____**Water:** VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs 500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna 250PB 250PBn 125PB 125PBznna 100PJ 100PJna₂ _____ _____ _____**Air:** Tedlar® Summa® _____ Other: _____ Checked/Labeled by: RSContainer: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop Reviewed by: HLPreservative: h: HCL n: HNO₃ na₂:Na₂S₂O₃ Na: NaOH p: H₃PO₄ s: H₂SO₄ znna: ZnAc₂+NaOH f: Field-filtered Scanned by: DC

Project CRUSH JOBS

Continued from Page

DATE	SAMPLE ID	SCREEN SIZE	COMMENTS	INITIALS
7/15/01	213367-002A	U.S.#10	Misc	RSP
	213414-001	U.S.#10	Misc. (concrete)	RSP
7/27/01	213717-013A	U.S.#10	Misc (Rocks)	RSP

Continued on Page

Read and Understood By

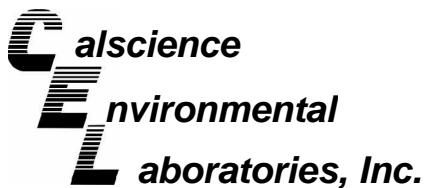
Signed

Date

Signed

Date

INVESTIGATION-DERIVED WASTE CHARACTERIZATION



July 29, 2009

Lisa Brooker
Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Subject: **Calscience Work Order No.: 09-07-2075**
Client Reference: 213713

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/25/2009 and analyzed in accordance with the attached chain-of-custody.

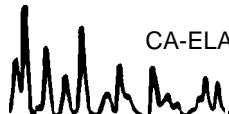
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

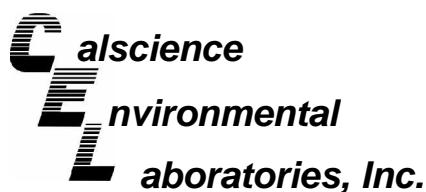
A handwritten signature in black ink that reads "Vikas Patel".

Calscience Environmental
Laboratories, Inc.
Vikas Patel
Project Manager



CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/25/09
Work Order No: 09-07-2075
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213713

Page 1 of 1

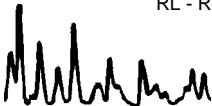
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
WC-RFS-072309	09-07-2075-2-A	07/23/09 12:20	Solid	GC 40	07/27/09	07/28/09 15:11	090727L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	99	30-130							

Method Blank	095-01-033-851	N/A	Solid	GC 40	07/27/09	07/28/09 13:02	090727L02
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	106	30-130							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/25/09
Work Order No: 09-07-2075
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/L

Project: 213713

Page 1 of 1

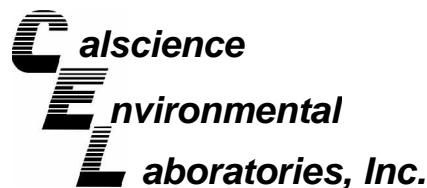
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
WC-RFS-072309	09-07-2075-1-A	07/23/09 12:20	Aqueous	GC 40	07/27/09	07/28/09 14:39	090727L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	13	1		2,4-D	ND	5.0	1	
Dicamba	ND	0.50	1		2,4,5-TP (Silvex)	ND	0.50	1	
MCPP	ND	500	1		2,4,5-T	ND	0.50	1	
MCPA	ND	500	1		2,4-DB	ND	5.0	1	
Dichlorprop	ND	5.0	1		Dinoseb	ND	2.5	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	96	0-123							

Method Blank	095-01-034-424	N/A	Aqueous	GC 40	07/27/09	07/28/09 11:25	090727L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	13	1		2,4-D	ND	5.0	1	
Dicamba	ND	0.50	1		2,4,5-TP (Silvex)	ND	0.50	1	
MCPP	ND	500	1		2,4,5-T	ND	0.50	1	
MCPA	ND	500	1		2,4-DB	ND	5.0	1	
Dichlorprop	ND	5.0	1		Dinoseb	ND	2.5	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	82	0-123							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - LCS/LCS Duplicate



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

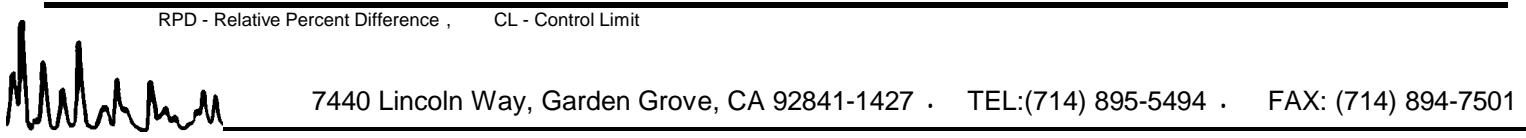
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Work Order No: 09-07-2075
Preparation: EPA 8151A
Method: EPA 8151A

Project: 213713

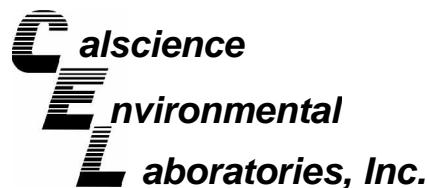
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-033-851	Solid	GC 40	07/27/09	07/28/09	090727L02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
2,4-D	95	85	30-130	10	0-30	
2,4,5-T	101	90	30-130	12	0-30	
2,4-DB	104	92	30-130	13	0-30	

RPD - Relative Percent Difference , CL - Control Limit



7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501



Quality Control - LCS/LCS Duplicate



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

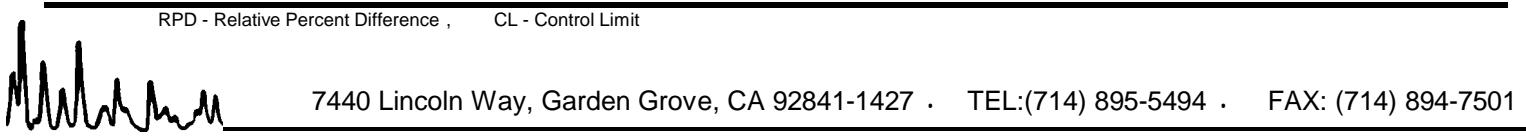
Date Received: N/A
Work Order No: 09-07-2075
Preparation: EPA 8151A
Method: EPA 8151A

Project: 213713

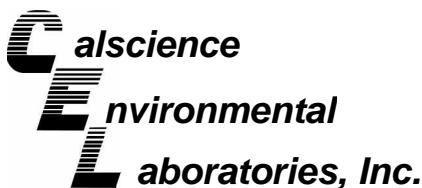
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-034-424	Aqueous	GC 40	07/27/09	07/28/09	090727L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
2,4-D	90	91	30-130	0	0-30	
2,4,5-T	102	102	30-130	0	0-30	
2,4-DB	97	96	30-130	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit



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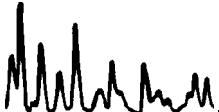


Glossary of Terms and Qualifiers



Work Order Number: 09-07-2075

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



Curtis & Tompkins, Ltd.
 Analytical Laboratories, Since 1878
 2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900
 (510) 486-0532

Project Number: 213713
 Site: Meade St Bypass, Richmond

Subcontract Laboratory:

Cal Science
 7440 Lincoln Way
 Garden Grove, CA 92841-1432
 (714) 895-5494
 ATTN: Vik Patel

RUSH

Results due: 07/28/09

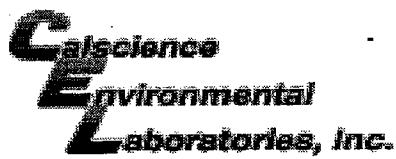
Report Level: II

Please send report to: Lisa Brooker (lisa@ctberk.com)
 *** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
WC-RFS-072309	07/23 12:20	Water	8150	213713-001	
WC-RFS-072309	07/23 12:20	Soil	8150	213713-002	

Notes:	Relinquished By:	Received By:
	<i>Jandee</i>	<i>L. CEL</i>
	Date/Time: 7-24-09 1600 ORG 928411432	Date/Time: 7/25/09 09:25

Signature on this form constitutes a firm Purchase Order for the services requested above.



WORK ORDER #: 09-07- > 0 7 5

SAMPLE RECEIPT FORMCooler 1 of 1CLIENT: Curtis & TompkinsDATE: 07/25/09

TEMPERATURE: (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C - 0.2 °C (CF) = 2.1 °C Blank Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: _____).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

 Received at ambient temperature, placed on ice for transport by Courier.Ambient Temperature: Air Filter Metals Only PCBs OnlyInitial: YC**CUSTODY SEALS INTACT:**

<input type="checkbox"/> Cooler	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial: <u>YC</u>
<input type="checkbox"/> Sample	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/>	Initial: <u>A2SC</u>

SAMPLE CONDITION:

Yes	No	N/A
-----	----	-----

Chain-Of-Custody (COC) document(s) received with samples.....

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

COC document(s) received complete.....

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

 Collection date/time, matrix, and/or # of containers logged in based on sample labels.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

 COC not relinquished. No date relinquished. No time relinquished.Sampler's name indicated on COC.....

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

Sample container label(s) consistent with COC.....

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Sample container(s) intact and good condition.....

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Correct containers and volume for analyses requested.....

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Analyses received within holding time.....

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Proper preservation noted on COC or sample container.....

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

 Unpreserved vials received for Volatiles analysisVolatile analysis container(s) free of headspace.....

<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	-------------------------------------

Tedlar bag(s) free of condensation.....

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

CONTAINER TYPE:**Solid:** 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores® TerraCores® 20z Jar**Water:** VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs 500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna 250PB 250PBn 125PB 125PBznna 100PJ 100PJna₂ _____ _____ **Air:** Tedlar® Summa® _____ **Other:** _____ **Checked/Labeled by:** A2SCContainer: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop **Reviewed by:** YCPreservative: H: HCL N: HNO₃ na₂:Na₂S₂O₃ Na: NaOH p: H₃PO₄ s: H₂SO₄ znna: ZnAc₂+NaOH f: Field-filtered **Scanned by:** YC

Total Extractable Hydrocarbons

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	WC-RFS-072309	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Prepared:	07/24/09
Diln Fac:	1.000	Analyzed:	07/28/09
Batch#:	153215		

Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213713-001

Analyte	Result	RL
Diesel C10-C24	2,000 Y	50
Motor Oil C24-C36	3,600	300

Surrogate	%REC	Limits
o-Terphenyl	97	61-127

Type: BLANK Cleanup Method: EPA 3630C
 Lab ID: QC504880

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	105	61-127

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504881	Batch#:	153215
Matrix:	Water	Prepared:	07/24/09
Units:	ug/L	Analyzed:	07/28/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,309	92	50-120

Surrogate	%REC	Limits
o-Terphenyl	97	61-127

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	153215
MSS Lab ID:	213689-002	Sampled:	07/22/09
Matrix:	Water	Received:	07/22/09
Units:	ug/L	Prepared:	07/24/09
Diln Fac:	1.000	Analyzed:	07/27/09

Type: MS Lab ID: QC504882

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	1,537	2,500	3,597	82	38-127

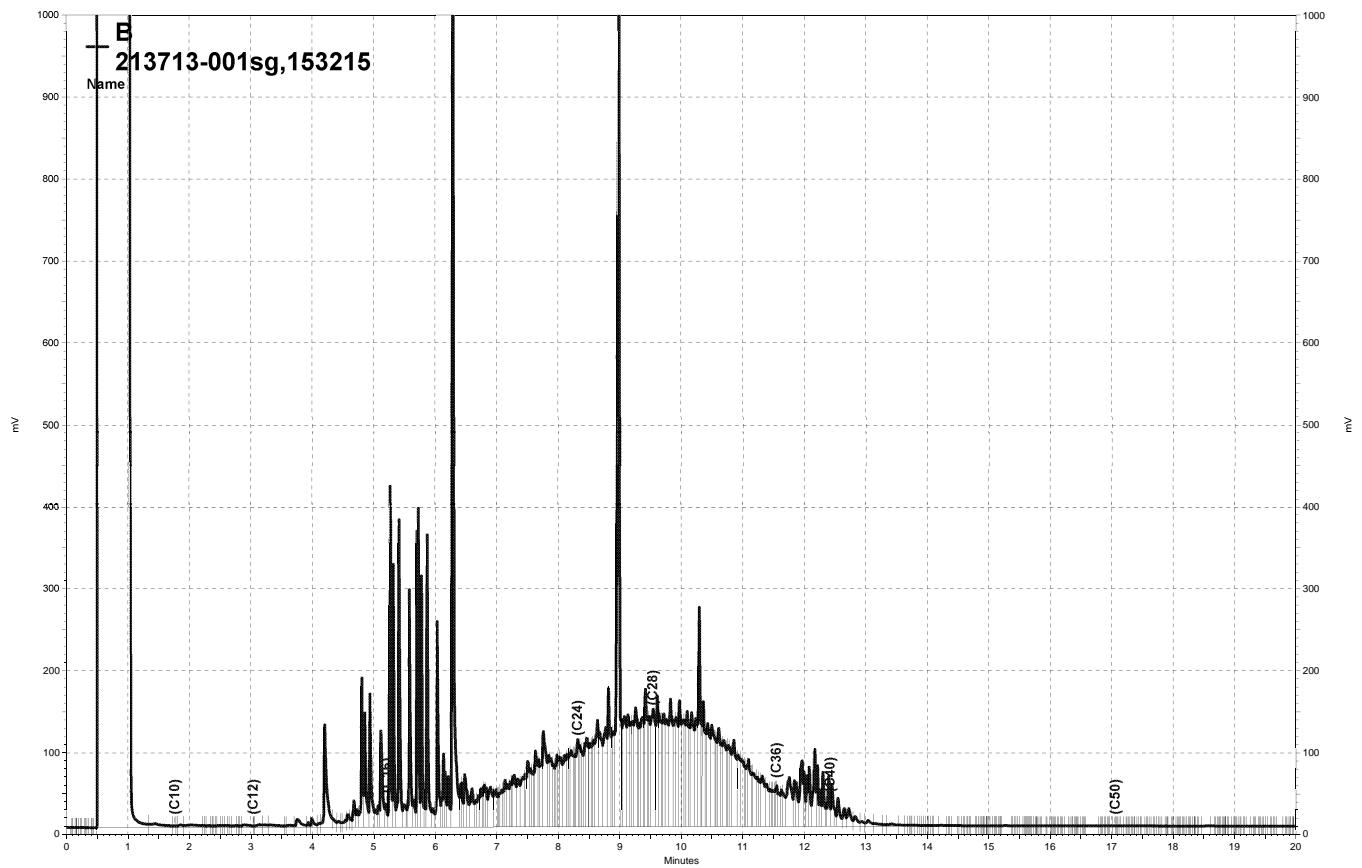
Surrogate	%REC	Limits
o-Terphenyl	94	61-127

Type: MSD Lab ID: QC504883

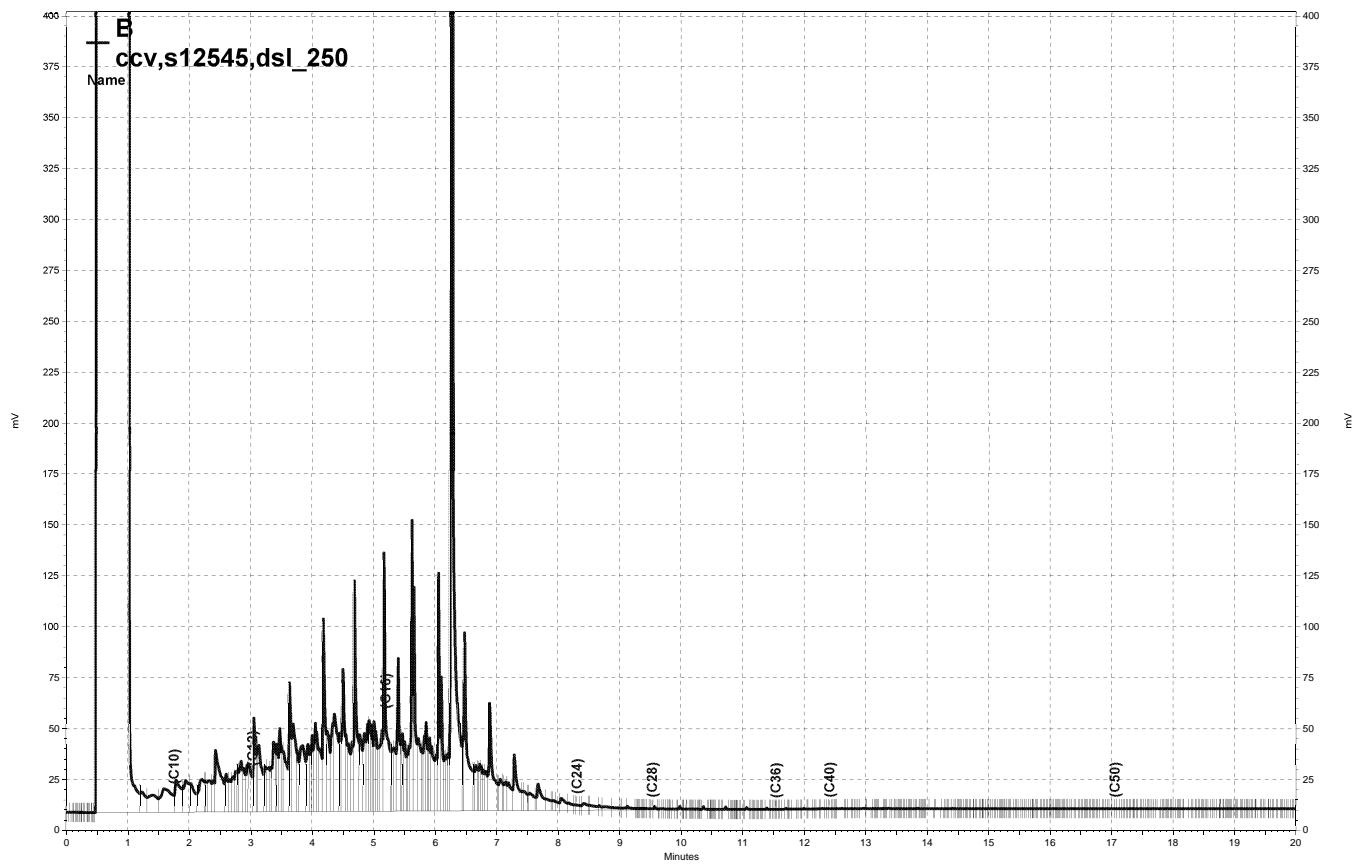
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	3,601	83	38-127	0	37

Surrogate	%REC	Limits
o-Terphenyl	98	61-127

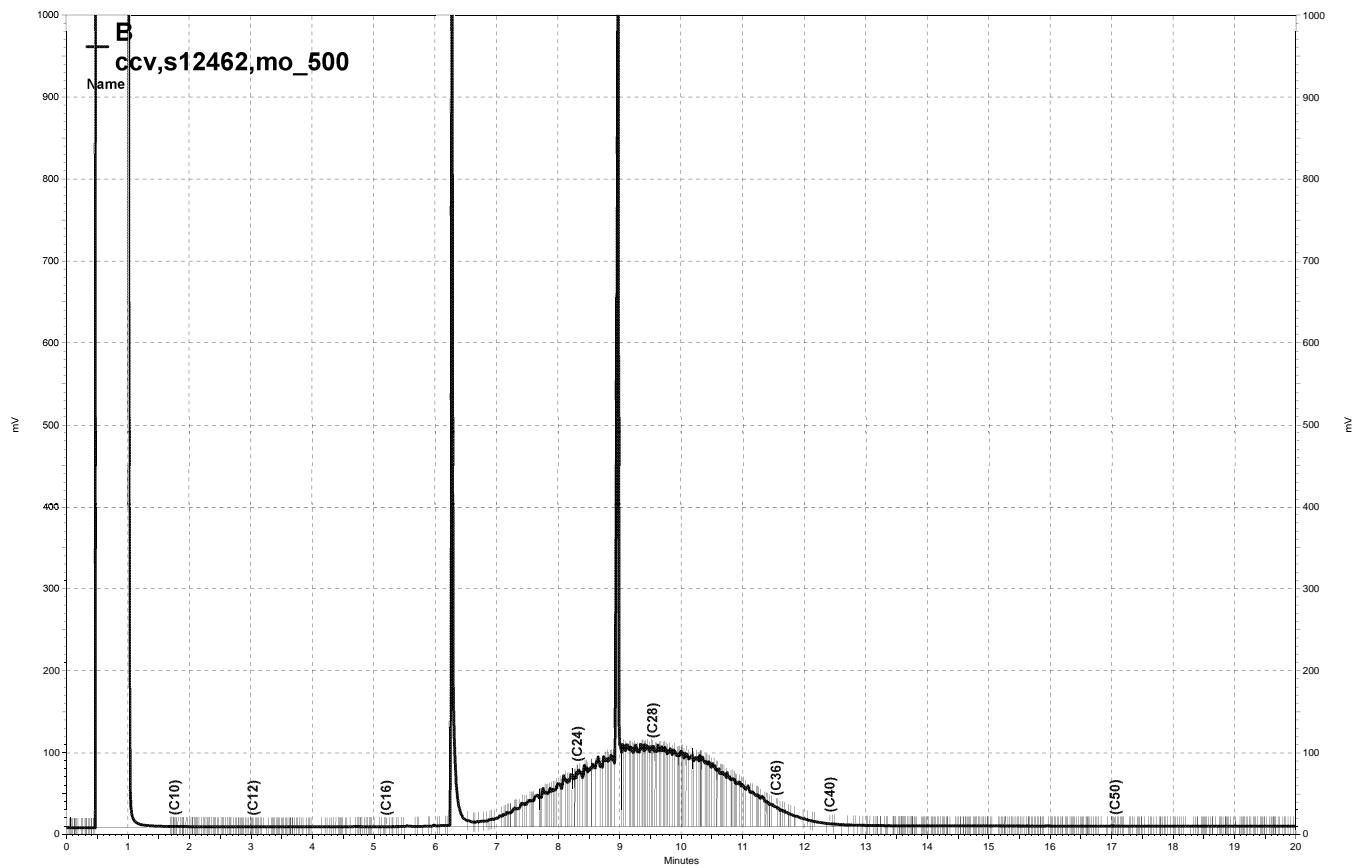
RPD= Relative Percent Difference



— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\208b035, B



— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\208b031, B



— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\208b032, B

Total Extractable Hydrocarbons

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	WC-RFS-072309	Batch#:	153168
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09
Basis:	as received	Prepared:	07/23/09
Diln Fac:	1.000	Analyzed:	07/26/09

Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213713-002

Analyte	Result	RL
Diesel C10-C24	3.9 Y	0.99
Motor Oil C24-C36	18	5.0

Surrogate	%REC	Limits
o-Terphenyl	93	53-133

Type: BLANK Cleanup Method: EPA 3630C
 Lab ID: QC504699

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

Surrogate	%REC	Limits
o-Terphenyl	107	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504700	Batch#:	153168
Matrix:	Soil	Prepared:	07/23/09
Units:	mg/Kg	Analyzed:	07/26/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.98	51.15	102	52-128

Surrogate	%REC	Limits
o-Terphenyl	94	53-133

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	153168
MSS Lab ID:	213635-006	Sampled:	07/16/09
Matrix:	Soil	Received:	07/21/09
Units:	mg/Kg	Prepared:	07/23/09
Basis:	as received	Analyzed:	07/26/09
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
 Lab ID: QC504701

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	0.2842	49.95	54.53	109	33-145

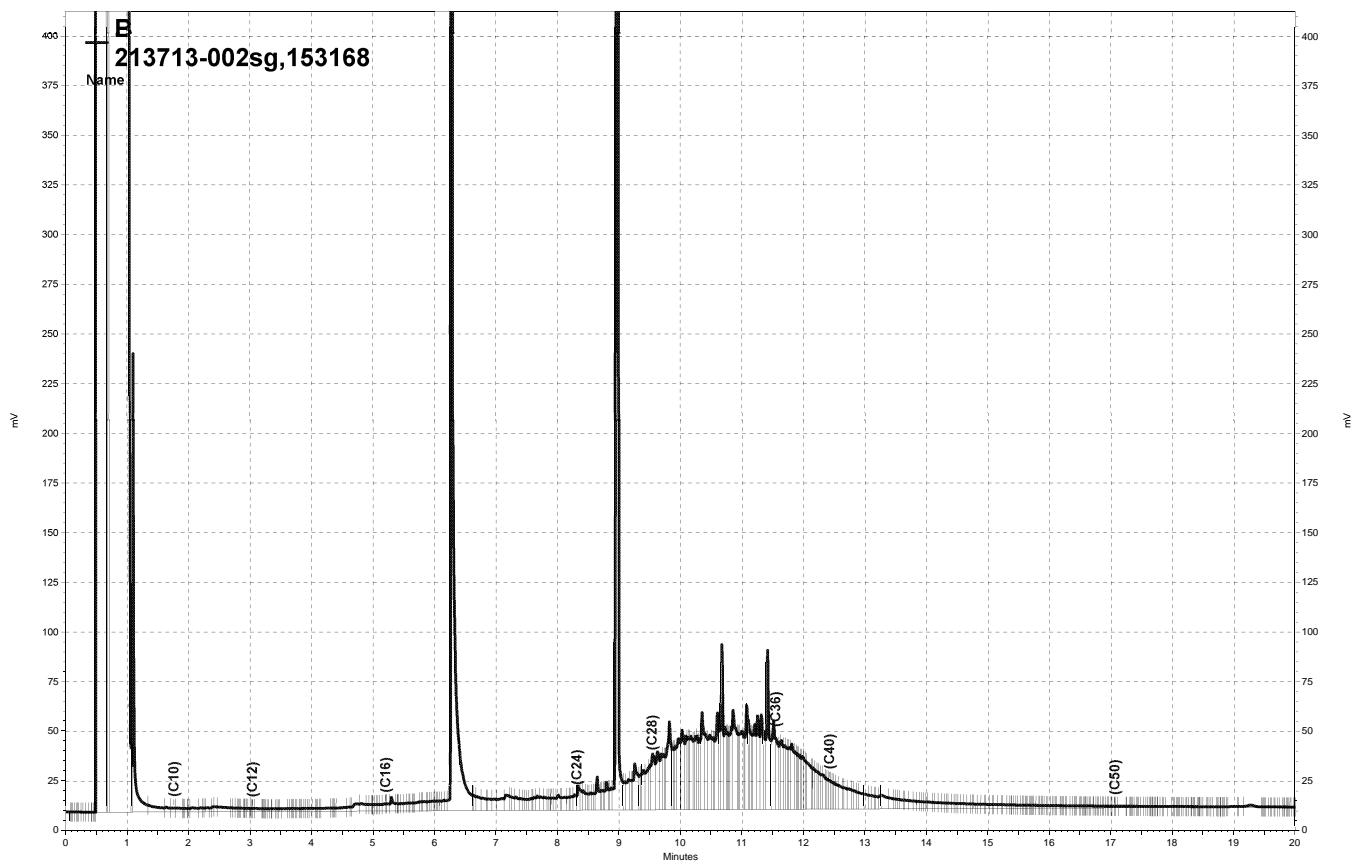
Surrogate	%REC	Limits
o-Terphenyl	98	53-133

Type: MSD Cleanup Method: EPA 3630C
 Lab ID: QC504702

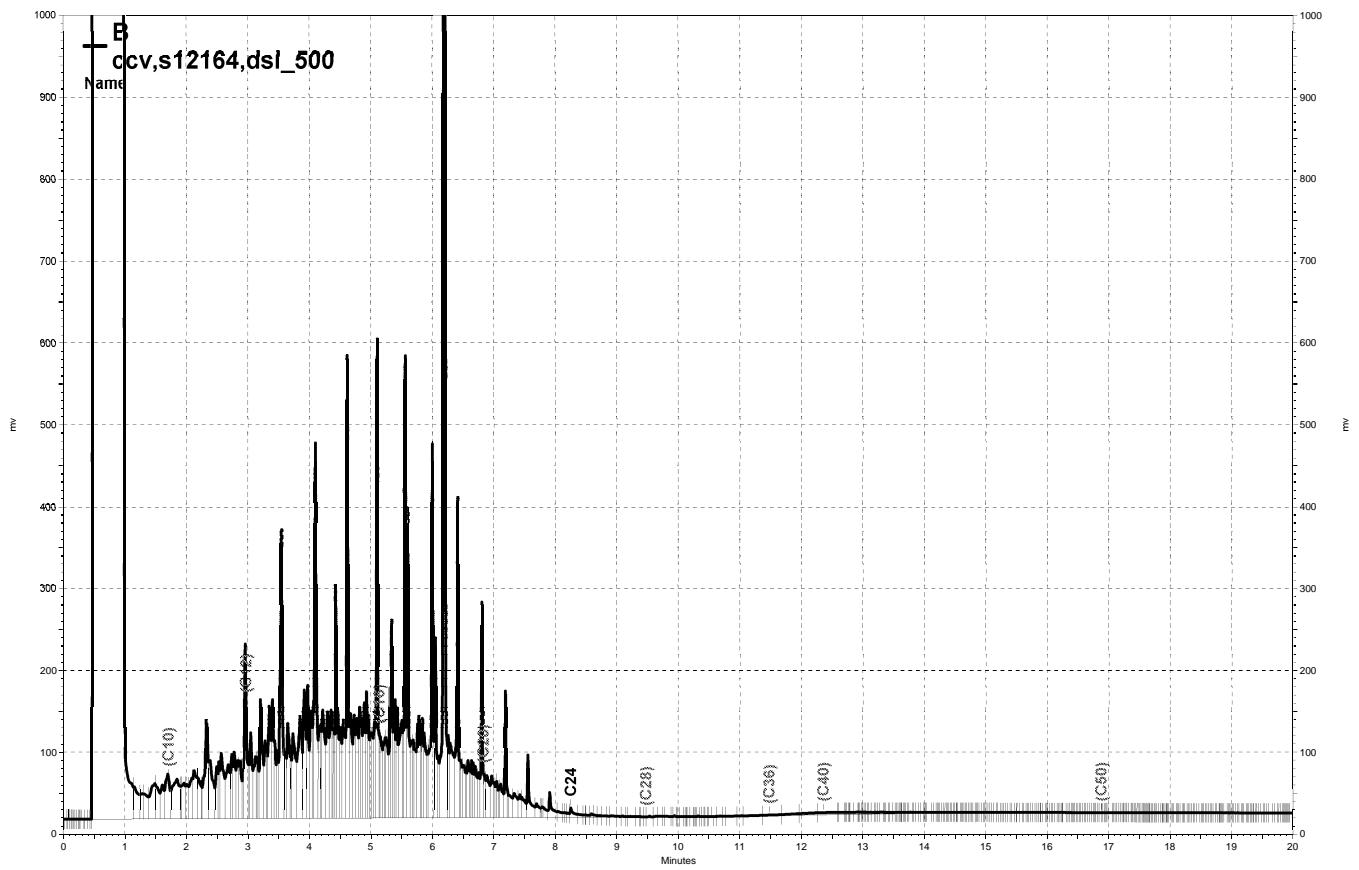
Analyte	Spiked	Result	%REC	Limits	RPD Lim
Diesel C10-C24	49.93	46.07	92	33-145	17 44

Surrogate	%REC	Limits
o-Terphenyl	81	53-133

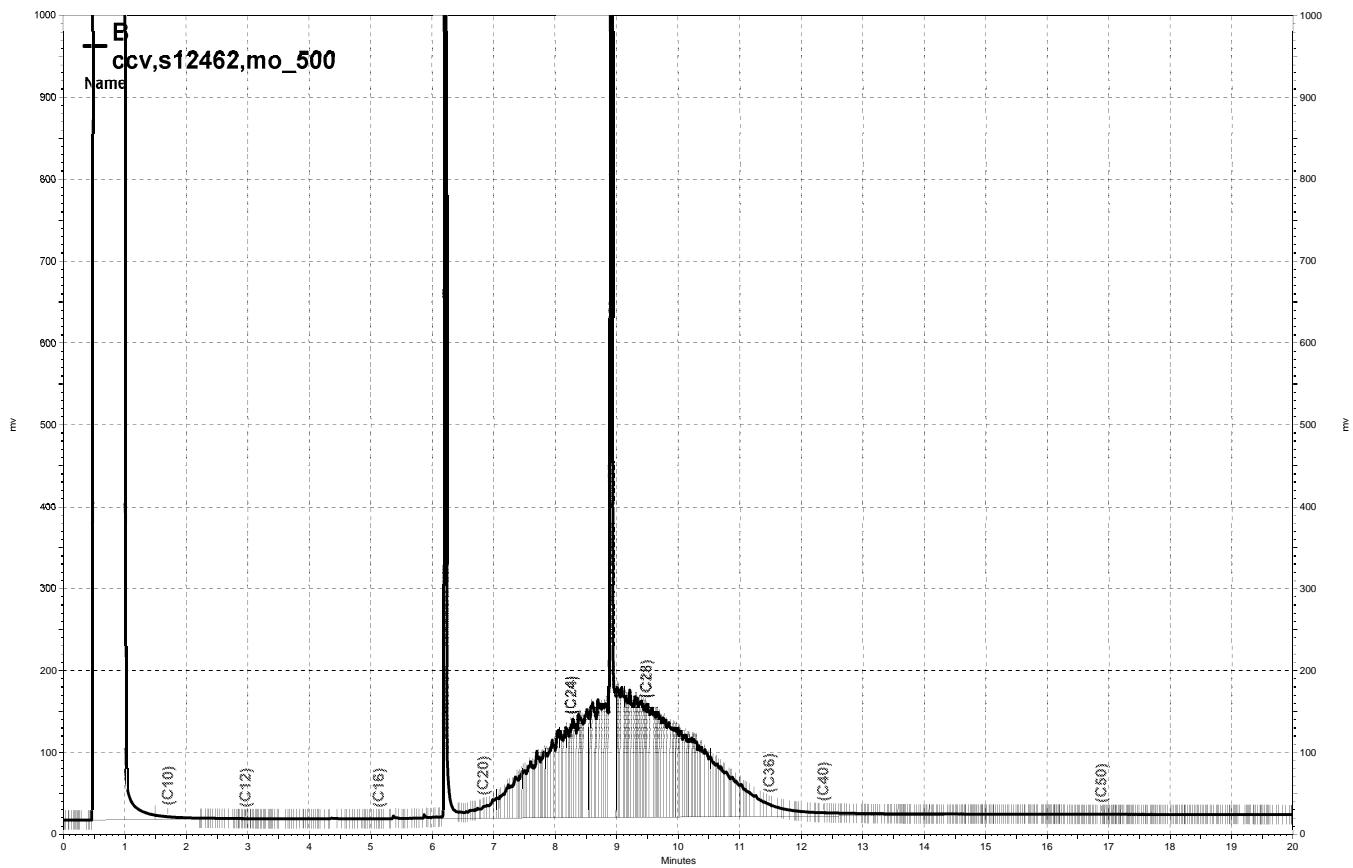
RPD= Relative Percent Difference



— \\Lims\\gdrive\\ezchrom\\Projects\\GC14B\\Data\\206b034, B



— \\Lims\\gdrive\\ezchrom\\Projects\\GC15B\\Data\\206b033, B



— \\Lims\\gdrive\\ezchrom\\Projects\\GC15B\\Data\\206b034, B

Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RFS-072309	Batch#:	153245
Lab ID:	213713-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	100.0		

Analyte	Result	RL
Freon 12	ND	100
Chloromethane	ND	100
Vinyl Chloride	ND	50
Bromomethane	ND	100
Chloroethane	ND	100
Trichlorofluoromethane	ND	100
Acetone	ND	1,000
Freon 113	ND	500
1,1-Dichloroethene	ND	50
Methylene Chloride	ND	1,000
Carbon Disulfide	ND	50
MTBE	ND	50
trans-1,2-Dichloroethene	ND	50
Vinyl Acetate	ND	1,000
1,1-Dichloroethane	ND	50
2-Butanone	ND	1,000
cis-1,2-Dichloroethene	ND	50
2,2-Dichloropropane	ND	50
Chloroform	ND	50
Bromochloromethane	ND	50
1,1,1-Trichloroethane	ND	50
1,1-Dichloropropene	ND	50
Carbon Tetrachloride	ND	50
1,2-Dichloroethane	ND	50
Benzene	ND	50
Trichloroethene	ND	50
1,2-Dichloropropane	ND	50
Bromodichloromethane	ND	50
Dibromomethane	ND	50
4-Methyl-2-Pentanone	ND	1,000
cis-1,3-Dichloropropene	ND	50
Toluene	ND	50
trans-1,3-Dichloropropene	ND	50
1,1,2-Trichloroethane	ND	50
2-Hexanone	ND	1,000
1,3-Dichloropropane	ND	50
Tetrachloroethene	ND	50

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RFS-072309	Batch#:	153245
Lab ID:	213713-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	100.0		

Analyte	Result	RL
Dibromochloromethane	ND	50
1,2-Dibromoethane	ND	50
Chlorobenzene	ND	50
1,1,1,2-Tetrachloroethane	ND	50
Ethylbenzene	ND	50
m,p-Xylenes	ND	50
o-Xylene	ND	50
Styrene	ND	50
Bromoform	ND	100
Isopropylbenzene	ND	50
1,1,2,2-Tetrachloroethane	ND	50
1,2,3-Trichloropropane	ND	50
Propylbenzene	ND	50
Bromobenzene	ND	50
1,3,5-Trimethylbenzene	ND	50
2-Chlorotoluene	ND	50
4-Chlorotoluene	ND	50
tert-Butylbenzene	ND	50
1,2,4-Trimethylbenzene	ND	50
sec-Butylbenzene	ND	50
para-Isopropyl Toluene	ND	50
1,3-Dichlorobenzene	ND	50
1,4-Dichlorobenzene	ND	50
n-Butylbenzene	ND	50
1,2-Dichlorobenzene	ND	50
1,2-Dibromo-3-Chloropropane	ND	200
1,2,4-Trichlorobenzene	ND	50
Hexachlorobutadiene	ND	50
Naphthalene	ND	200
1,2,3-Trichlorobenzene	ND	50

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-122
1,2-Dichloroethane-d4	119	77-137
Toluene-d8	101	80-120
Bromofluorobenzene	93	80-125

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	153245
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	1.000		

Type: BS Lab ID: QC505037

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	15.00	12.08	81	74-132
Benzene	15.00	14.02	93	80-120
Trichloroethene	15.00	15.29	102	80-120
Toluene	15.00	16.18	108	80-120
Chlorobenzene	15.00	14.76	98	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	93	80-122
1,2-Dichloroethane-d4	117	77-137
Toluene-d8	101	80-120
Bromofluorobenzene	86	80-125

Type: BSD Lab ID: QC505038

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	15.00	11.55	77	74-132	4	20
Benzene	15.00	13.66	91	80-120	3	20
Trichloroethene	15.00	15.38	103	80-120	1	20
Toluene	15.00	15.90	106	80-120	2	20
Chlorobenzene	15.00	14.69	98	80-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	92	80-122
1,2-Dichloroethane-d4	117	77-137
Toluene-d8	98	80-120
Bromofluorobenzene	88	80-125

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505039	Batch#:	153245
Matrix:	Water	Analyzed:	07/27/09
Units:	ug/L		

Analyte	Result	RL
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	5.0
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

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505039	Batch#:	153245
Matrix:	Water	Analyzed:	07/27/09
Units:	ug/L		

Analyte	Result	RL
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	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
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	0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-122
1,2-Dichloroethane-d4	118	77-137
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-125

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RFS-072309	Diln Fac:	0.9690
Lab ID:	213713-002	Batch#:	153197
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/24/09

Analyte	Result	RL
Freon 12	ND	9.7
Chloromethane	ND	9.7
Vinyl Chloride	ND	9.7
Bromomethane	ND	9.7
Chloroethane	ND	9.7
Trichlorofluoromethane	ND	4.8
Acetone	ND	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.7
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.7
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.7
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RFS-072309	Diln Fac:	0.9690
Lab ID:	213713-002	Batch#:	153197
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/24/09

Analyte	Result	RL
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	102	71-128
1,2-Dichloroethane-d4	109	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	96	77-131

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504813	Batch#:	153197
Matrix:	Soil	Analyzed:	07/24/09
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 #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504813	Batch#:	153197
Matrix:	Soil	Analyzed:	07/24/09
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	99	71-128
1,2-Dichloroethane-d4	103	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	97	77-131

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	153197
Units:	ug/Kg	Analyzed:	07/24/09
Diln Fac:	1.000		

Type: BS Lab ID: QC504814

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	20.74	83	73-135
Benzene	25.00	22.96	92	80-125
Trichloroethene	25.00	24.40	98	80-127
Toluene	25.00	23.93	96	80-126
Chlorobenzene	25.00	26.52	106	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	71-128
1,2-Dichloroethane-d4	106	69-135
Toluene-d8	98	80-120
Bromofluorobenzene	96	77-131

Type: BSD Lab ID: QC504815

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	21.48	86	73-135	3	20
Benzene	25.00	23.76	95	80-125	3	20
Trichloroethene	25.00	25.19	101	80-127	3	20
Toluene	25.00	24.73	99	80-126	3	20
Chlorobenzene	25.00	27.16	109	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	71-128
1,2-Dichloroethane-d4	103	69-135
Toluene-d8	98	80-120
Bromofluorobenzene	95	77-131

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RFS-072309	Diln Fac:	0.9690
MSS Lab ID:	213713-002	Batch#:	153197
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/24/09

Type: MS Lab ID: QC504847

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.9690	48.45	39.87	82	58-145
Benzene	<0.9690	48.45	41.57	86	56-126
Trichloroethene	<0.9690	48.45	40.05	83	50-142
Toluene	<0.9690	48.45	41.64	86	52-125
Chlorobenzene	<0.9690	48.45	41.28	85	46-120

Surrogate	%REC	Limits
Dibromofluoromethane	87	71-128
1,2-Dichloroethane-d4	81	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	94	77-131

Type: MSD Lab ID: QC504848

Analyte	Spiked	Result	%REC	Limits	RPD Lim
1,1-Dichloroethene	48.45	44.09	91	58-145	10 28
Benzene	48.45	45.12	93	56-126	8 26
Trichloroethene	48.45	44.03	91	50-142	9 29
Toluene	48.45	45.42	94	52-125	9 29
Chlorobenzene	48.45	45.77	94	46-120	10 29

Surrogate	%REC	Limits
Dibromofluoromethane	89	71-128
1,2-Dichloroethane-d4	81	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	94	77-131

RPD= Relative Percent Difference

Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	WC-RFS-072309	Batch#:	153116
Lab ID:	213713-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Prepared:	07/23/09
Diln Fac:	10.00	Analyzed:	07/24/09

Analyte	Result	RL
N-Nitrosodimethylamine	ND	100
Phenol	ND	100
bis(2-Chloroethyl)ether	ND	100
2-Chlorophenol	ND	100
1,3-Dichlorobenzene	ND	100
1,4-Dichlorobenzene	ND	100
Benzyl alcohol	ND	100
1,2-Dichlorobenzene	ND	100
2-Methylphenol	ND	100
bis(2-Chloroisopropyl) ether	ND	100
4-Methylphenol	ND	100
N-Nitroso-di-n-propylamine	ND	100
Hexachloroethane	ND	100
Nitrobenzene	ND	100
Isophorone	ND	100
2-Nitrophenol	ND	200
2,4-Dimethylphenol	ND	100
Benzoic acid	ND	500
bis(2-Chloroethoxy)methane	ND	100
2,4-Dichlorophenol	ND	100
1,2,4-Trichlorobenzene	ND	100
Naphthalene	ND	100
4-Chloroaniline	ND	100
Hexachlorobutadiene	ND	100
4-Chloro-3-methylphenol	ND	100
2-Methylnaphthalene	ND	100
Hexachlorocyclopentadiene	ND	200
2,4,6-Trichlorophenol	ND	100
2,4,5-Trichlorophenol	ND	100
2-Chloronaphthalene	ND	100
2-Nitroaniline	ND	200
Dimethylphthalate	ND	100
Acenaphthylene	ND	100
2,6-Dinitrotoluene	ND	100
3-Nitroaniline	ND	200
Acenaphthene	ND	100
2,4-Dinitrophenol	ND	200
4-Nitrophenol	ND	200
Dibenzofuran	ND	100
2,4-Dinitrotoluene	ND	100
Diethylphthalate	ND	100
Fluorene	ND	100
4-Chlorophenyl-phenylether	ND	100
4-Nitroaniline	ND	200
4,6-Dinitro-2-methylphenol	ND	200
N-Nitrosodiphenylamine	ND	100
Azobenzene	ND	100
4-Bromophenyl-phenylether	ND	100
Hexachlorobenzene	ND	100
Pentachlorophenol	ND	200
Phenanthrrene	ND	100
Anthracene	ND	100
Di-n-butylphthalate	ND	100

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	WC-RFS-072309	Batch#:	153116
Lab ID:	213713-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Prepared:	07/23/09
Diln Fac:	10.00	Analyzed:	07/24/09

Analyte	Result	RL
Fluoranthene	ND	100
Pyrene	ND	100
Butylbenzylphthalate	ND	100
3,3'-Dichlorobenzidine	ND	200
Benzo(a)anthracene	ND	100
Chrysene	ND	100
bis(2-Ethylhexyl)phthalate	ND	100
Di-n-octylphthalate	ND	100
Benzo(b)fluoranthene	ND	100
Benzo(k)fluoranthene	ND	100
Benzo(a)pyrene	ND	100
Indeno(1,2,3-cd)pyrene	ND	100
Dibenz(a,h)anthracene	ND	100
Benzo(q,h,i)perylene	ND	100

Surrogate	%REC	Limits
2-Fluorophenol	DO	39-120
Phenol-d5	DO	41-120
2,4,6-Tribromophenol	DO	35-120
Nitrobenzene-d5	DO	56-120
2-Fluorobiphenyl	DO	56-120
Terphenyl-d14	DO	28-120

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504482	Batch#:	153116
Matrix:	Water	Prepared:	07/22/09
Units:	ug/L	Analyzed:	07/23/09

Analyte	Result	RL
N-Nitrosodimethylamine	ND	10
Phenol	ND	10
bis(2-Chloroethyl)ether	ND	10
2-Chlorophenol	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
Benzyl alcohol	ND	10
1,2-Dichlorobenzene	ND	10
2-Methylphenol	ND	10
bis(2-Chloroisopropyl) ether	ND	10
4-Methylphenol	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
2-Nitrophenol	ND	20
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
bis(2-Chloroethoxy)methane	ND	10
2,4-Dichlorophenol	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
4-Chloro-3-methylphenol	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	20
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	20
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	20
Acenaphthene	ND	10
2,4-Dinitrophenol	ND	20
4-Nitrophenol	ND	20
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
Fluorene	ND	10
4-Chlorophenyl-phenylether	ND	10
4-Nitroaniline	ND	20
4,6-Dinitro-2-methylphenol	ND	20
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Pentachlorophenol	ND	20
Phenanthrrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504482	Batch#:	153116
Matrix:	Water	Prepared:	07/22/09
Units:	ug/L	Analyzed:	07/23/09

Analyte	Result	RL
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	20
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%REC	Limits
2-Fluorophenol	66	39-120
Phenol-d5	72	41-120
2,4,6-Tribromophenol	69	35-120
Nitrobenzene-d5	73	56-120
2-Fluorobiphenyl	81	56-120
Terphenyl-d14	86	28-120

ND= Not Detected

RL= Reporting Limit

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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Matrix:	Water	Batch#:	153116
Units:	ug/L	Prepared:	07/22/09
Diln Fac:	1.000	Analyzed:	07/24/09

Type: BS Lab ID: QC504483

Analyte	Spiked	Result	%REC	Limits
Phenol	80.00	53.06	66	52-120
2-Chlorophenol	80.00	60.35	75	59-120
1,4-Dichlorobenzene	80.00	52.07	65	48-120
N-Nitroso-di-n-propylamine	80.00	54.95	69	44-120
1,2,4-Trichlorobenzene	80.00	56.60	71	46-120
4-Chloro-3-methylphenol	80.00	67.01	84	59-120
Acenaphthene	30.00	21.34	71	59-120
4-Nitrophenol	80.00	54.81	69	54-120
2,4-Dinitrotoluene	80.00	62.27	78	60-120
Pentachlorophenol	80.00	56.37	70	48-120
Pyrene	30.00	20.83	69	59-120

Surrogate	%REC	Limits
2-Fluorophenol	56	39-120
Phenol-d5	72	41-120
2,4,6-Tribromophenol	77	35-120
Nitrobenzene-d5	61	56-120
2-Fluorobiphenyl	68	56-120
Terphenyl-d14	72	28-120

Type: BSD Lab ID: QC504484

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Phenol	80.00	61.18	76	52-120	14 21
2-Chlorophenol	80.00	70.01	88	59-120	15 20
1,4-Dichlorobenzene	80.00	62.34	78	48-120	18 28
N-Nitroso-di-n-propylamine	80.00	64.85	81	44-120	17 21
1,2,4-Trichlorobenzene	80.00	63.30	79	46-120	11 26
4-Chloro-3-methylphenol	80.00	70.88	89	59-120	6 20
Acenaphthene	30.00	23.52	78	59-120	10 20
4-Nitrophenol	80.00	63.80	80	54-120	15 20
2,4-Dinitrotoluene	80.00	69.76	87	60-120	11 20
Pentachlorophenol	80.00	64.55	81	48-120	14 21
Pyrene	30.00	24.03	80	59-120	14 20

Surrogate	%REC	Limits
2-Fluorophenol	65	39-120
Phenol-d5	83	41-120
2,4,6-Tribromophenol	89	35-120
Nitrobenzene-d5	72	56-120
2-Fluorobiphenyl	74	56-120
Terphenyl-d14	82	28-120

RPD= Relative Percent Difference

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Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	WC-RFS-072309	Batch#:	153201
Lab ID:	213713-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/27/09
Diln Fac:	2.000		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	660
Phenol	ND	660
bis(2-Chloroethyl)ether	ND	660
2-Chlorophenol	ND	660
1,3-Dichlorobenzene	ND	660
1,4-Dichlorobenzene	ND	660
Benzyl alcohol	ND	660
1,2-Dichlorobenzene	ND	660
2-Methylphenol	ND	660
bis(2-Chloroisopropyl) ether	ND	660
4-Methylphenol	ND	660
N-Nitroso-di-n-propylamine	ND	660
Hexachloroethane	ND	660
Nitrobenzene	ND	660
Isophorone	ND	660
2-Nitrophenol	ND	1,300
2,4-Dimethylphenol	ND	660
Benzoic acid	ND	3,300
bis(2-Chloroethoxy)methane	ND	660
2,4-Dichlorophenol	ND	660
1,2,4-Trichlorobenzene	ND	660
Naphthalene	ND	130
4-Chloroaniline	ND	660
Hexachlorobutadiene	ND	660
4-Chloro-3-methylphenol	ND	660
2-Methylnaphthalene	ND	130
Hexachlorocyclopentadiene	ND	1,300
2,4,6-Trichlorophenol	ND	660
2,4,5-Trichlorophenol	ND	660
2-Chloronaphthalene	ND	660
2-Nitroaniline	ND	1,300
Dimethylphthalate	ND	660
Acenaphthylene	ND	130
2,6-Dinitrotoluene	ND	660
3-Nitroaniline	ND	1,300
Acenaphthene	ND	130
2,4-Dinitrophenol	ND	1,300
4-Nitrophenol	ND	1,300
Dibenzofuran	ND	660
2,4-Dinitrotoluene	ND	660
Diethylphthalate	ND	660
Fluorene	ND	130
4-Chlorophenyl-phenylether	ND	660
4-Nitroaniline	ND	1,300
4,6-Dinitro-2-methylphenol	ND	1,300
N-Nitrosodiphenylamine	ND	660
Azobenzene	ND	660
4-Bromophenyl-phenylether	ND	660
Hexachlorobenzene	ND	660
Pentachlorophenol	ND	1,300
Phenanthrene	ND	130
Anthracene	ND	130
Di-n-butylphthalate	ND	660

ND= Not Detected

RL= Reporting Limit

Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	WC-RFS-072309	Batch#:	153201
Lab ID:	213713-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/27/09
Diln Fac:	2.000		

Analyte	Result	RL
Fluoranthene	ND	130
Pyrene	ND	130
Butylbenzylphthalate	ND	660
3,3'-Dichlorobenzidine	ND	1,300
Benzo(a)anthracene	ND	130
Chrysene	ND	130
bis(2-Ethylhexyl)phthalate	ND	660
Di-n-octylphthalate	ND	660
Benzo(b)fluoranthene	ND	130
Benzo(k)fluoranthene	ND	130
Benzo(a)pyrene	ND	130
Indeno(1,2,3-cd)pyrene	ND	130
Dibenz(a,h)anthracene	ND	130
Benzo(g,h,i)perylene	ND	130

Surrogate	%REC	Limits
2-Fluorophenol	76	35-120
Phenol-d5	73	37-120
2,4,6-Tribromophenol	69	30-120
Nitrobenzene-d5	74	47-120
2-Fluorobiphenyl	81	52-120
Terphenyl-d14	76	45-120

ND= Not Detected
 RL= Reporting Limit
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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504827	Batch#:	153201
Matrix:	Soil	Prepared:	07/24/09
Units:	ug/Kg	Analyzed:	07/27/09

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
Phenanthrrene	ND	66
Anthracene	ND	66
Di-n-butylphthalate	ND	330
Fluoranthene	ND	66

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504827	Batch#:	153201
Matrix:	Soil	Prepared:	07/24/09
Units:	ug/Kg	Analyzed:	07/27/09

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	65	35-120
Phenol-d5	62	37-120
2,4,6-Tribromophenol	50	30-120
Nitrobenzene-d5	61	47-120
2-Fluorobiphenyl	63	52-120
Terphenyl-d14	62	45-120

ND= Not Detected

RL= Reporting Limit

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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504828	Batch#:	153201
Matrix:	Soil	Prepared:	07/24/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Spiked	Result	%REC	Limits
Phenol	2,659	1,999	75	37-120
2-Chlorophenol	2,659	2,084	78	44-120
1,4-Dichlorobenzene	2,659	2,033	76	51-120
N-Nitroso-di-n-propylamine	2,659	2,188	82	26-120
1,2,4-Trichlorobenzene	2,659	2,033	76	46-120
4-Chloro-3-methylphenol	2,659	2,059	77	48-120
Acenaphthene	997.0	697.7	70	50-120
4-Nitrophenol	2,659	1,946	73	39-120
2,4-Dinitrotoluene	2,659	2,107	79	50-120
Pentachlorophenol	2,659	1,842	69	26-120
Pyrene	997.0	769.1	77	47-120

Surrogate	%REC	Limits
2-Fluorophenol	78	35-120
Phenol-d5	76	37-120
2,4,6-Tribromophenol	79	30-120
Nitrobenzene-d5	72	47-120
2-Fluorobiphenyl	74	52-120
Terphenyl-d14	79	45-120

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZZ	Batch#:	153201
MSS Lab ID:	213651-002	Sampled:	07/21/09
Matrix:	Soil	Received:	07/21/09
Units:	ug/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/24/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504829

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<66.20	2,643	1,581	60	42-120
2-Chlorophenol	<76.63	2,643	1,815	69	45-120
1,4-Dichlorobenzene	<83.05	2,643	1,588	60	50-120
N-Nitroso-di-n-propylamine	<65.50	2,643	1,690	64	35-120
1,2,4-Trichlorobenzene	<84.38	2,643	1,848	70	47-120
4-Chloro-3-methylphenol	<69.60	2,643	1,913	72	48-120
Acenaphthene	<15.13	991.1	701.8	71	49-120
4-Nitrophenol	<59.17	2,643	2,013	76	36-120
2,4-Dinitrotoluene	<72.15	2,643	1,867	71	48-120
Pentachlorophenol	<70.25	2,643	1,850	70	21-120
Pyrene	<12.81	991.1	676.4	68	40-120

Surrogate	%REC	Limits
2-Fluorophenol	74	35-120
Phenol-d5	66	37-120
2,4,6-Tribromophenol	82	30-120
Nitrobenzene-d5	74	47-120
2-Fluorobiphenyl	69	52-120
Terphenyl-d14	72	45-120

Type: MSD Lab ID: QC504830

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Phenol	2,630	1,351	51	42-120	15 34
2-Chlorophenol	2,630	1,561	59	45-120	15 34
1,4-Dichlorobenzene	2,630	1,372	52	50-120	14 33
N-Nitroso-di-n-propylamine	2,630	1,452	55	35-120	15 41
1,2,4-Trichlorobenzene	2,630	1,650	63	47-120	11 33
4-Chloro-3-methylphenol	2,630	1,706	65	48-120	11 33
Acenaphthene	986.2	634.9	64	49-120	10 32
4-Nitrophenol	2,630	1,818	69	36-120	10 40
2,4-Dinitrotoluene	2,630	1,694	64	48-120	9 33
Pentachlorophenol	2,630	1,755	67	21-120	5 48
Pyrene	986.2	632.9	64	40-120	6 33

Surrogate	%REC	Limits
2-Fluorophenol	63	35-120
Phenol-d5	56	37-120
2,4,6-Tribromophenol	75	30-120
Nitrobenzene-d5	64	47-120
2-Fluorobiphenyl	59	52-120
Terphenyl-d14	67	45-120

RPD= Relative Percent Difference

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Organochlorine Pesticides

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	WC-RFS-072309	Batch#:	153213
Lab ID:	213713-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Prepared:	07/24/09
Diln Fac:	25.00	Analyzed:	07/28/09

Analyte	Result	RL
alpha-BHC	ND	1.2
beta-BHC	ND	1.2
gamma-BHC	ND	1.2
delta-BHC	ND	1.2
Heptachlor	ND	1.2
Aldrin	ND	1.2
Heptachlor epoxide	ND	1.2
Endosulfan I	ND	1.2
Dieldrin	ND	2.5
4,4'-DDE	ND	2.5
Endrin	ND	2.5
Endosulfan II	ND	2.5
Endosulfan sulfate	ND	2.5
4,4'-DDD	5.1	2.5
Endrin aldehyde	ND	2.5
4,4'-DDT	ND #	2.5
alpha-Chlordane	ND	1.2
gamma-Chlordane	ND	1.2
Methoxychlor	ND #	12
Toxaphene	ND	25

Surrogate	%REC	Limits
TCMX	DO	36-120
Decachlorobiphenyl	DO	23-131

#= CCV drift outside limits; average CCV drift within limits per method requirements

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Organochlorine Pesticides

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504872	Batch#:	153213
Matrix:	Water	Prepared:	07/24/09
Units:	ug/L	Analyzed:	07/28/09

Analyte	Result	RL
alpha-BHC	ND	0.05
beta-BHC	ND	0.05
gamma-BHC	ND	0.05
delta-BHC	ND	0.05
Heptachlor	ND	0.05
Aldrin	ND	0.05
Heptachlor epoxide	ND	0.05
Endosulfan I	ND	0.05
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
Endosulfan sulfate	ND	0.1
4,4'-DDD	ND	0.1
Endrin aldehyde	ND	0.1
4,4'-DDT	ND #	0.1
alpha-Chlordane	ND	0.05
gamma-Chlordane	ND	0.05
Methoxychlor	ND #	0.5
Toxaphene	ND	1.0

Surrogate	%REC	Limits
TCMX	69	36-120
Decachlorobiphenyl	55	23-131

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Organochlorine Pesticides

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8081B
Matrix:	Water	Batch#:	153213
Units:	ug/L	Prepared:	07/24/09
Diln Fac:	1.000	Analyzed:	07/28/09

Type: BS Lab ID: QC504873

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	0.2000	0.1600	80	63-128
Heptachlor	0.2000	0.1431	72	50-127
Aldrin	0.2000	0.1476	74	45-124
Dieldrin	0.4000	0.3084	77	58-132
Endrin	0.4000	0.2973	74	57-135
4,4'-DDT	0.4000	0.2708 #	68	50-145

Surrogate	%REC	Limits
TCMX	73	36-120
Decachlorobiphenyl	57	23-131

Type: BSD Lab ID: QC504874

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	0.2000	0.1595	80	63-128	0	21
Heptachlor	0.2000	0.1445	72	50-127	1	31
Aldrin	0.2000	0.1465	73	45-124	1	30
Dieldrin	0.4000	0.3036	76	58-132	2	21
Endrin	0.4000	0.2914	73	57-135	2	27
4,4'-DDT	0.4000	0.2572 #	64	50-145	5	27

Surrogate	%REC	Limits
TCMX	75	36-120
Decachlorobiphenyl	52	23-131

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

Organochlorine Pesticides

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	WC-RFS-072309	Batch#:	153220
Lab ID:	213713-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/27/09
Diln Fac:	5.000		

Analyte	Result	RL
alpha-BHC	ND	8.4
beta-BHC	ND	8.4
gamma-BHC	ND	8.4
delta-BHC	ND	8.4
Heptachlor	ND	8.4
Aldrin	ND	8.4
Heptachlor epoxide	ND	8.4
Endosulfan I	ND	8.4
Dieldrin	ND	16
4,4'-DDE	ND	16
Endrin	ND	16
Endosulfan II	ND	16
Endosulfan sulfate	ND	16
4,4'-DDD	ND	16
Endrin aldehyde	ND	16
4,4'-DDT	ND	16
alpha-Chlordane	ND	8.4
gamma-Chlordane	ND	8.4
Methoxychlor	ND #	84
Toxaphene	ND	300

Surrogate	%REC	Limits
TCMX	84	44-126
Decachlorobiphenyl	54	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Organochlorine Pesticides

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504907	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	86	44-126
Decachlorobiphenyl	57	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Organochlorine Pesticides

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504908	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.34	10.22	77	45-121
Heptachlor	13.34	9.646	72	39-127
Aldrin	13.34	9.827	74	43-120
Dieldrin	26.68	19.11	72	43-126
Endrin	26.68	19.14	72	30-130
4,4'-DDT	26.68	19.80	74	41-133

Surrogate	%REC	Limits
TCMX	78	44-126
Decachlorobiphenyl	51	38-139

Polychlorinated Biphenyls (PCBs)

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8082
Field ID:	WC-RFS-072309	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Prepared:	07/24/09
Diln Fac:	1.000	Analyzed:	07/27/09
Batch#:	153212		

Type: SAMPLE Lab ID: 213713-001

Analyte	Result	RL
Aroclor-1016	ND	0.50
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.50
Aroclor-1242	ND	0.50
Aroclor-1248	ND	0.50
Aroclor-1254	ND	0.50
Aroclor-1260	ND	0.50

Surrogate	%REC	Limits
TCMX	97	54-121
Decachlorobiphenyl	54	15-120

Type: BLANK Lab ID: QC504869

Analyte	Result	RL
Aroclor-1016	ND	0.50
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.50
Aroclor-1242	ND	0.50
Aroclor-1248	ND	0.50
Aroclor-1254	ND	0.50
Aroclor-1260	ND	0.50

Surrogate	%REC	Limits
TCMX	77	54-121
Decachlorobiphenyl	53	15-120

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8082
Matrix:	Water	Batch#:	153212
Units:	ug/L	Prepared:	07/24/09
Diln Fac:	1.000	Analyzed:	07/27/09

Type: BS Lab ID: QC504870

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	5.000	5.238	105	73-139
Aroclor-1260	5.000	5.711	114	68-139

Surrogate	%REC	Limits
TCMX	83	54-121
Decachlorobiphenyl	59	15-120

Type: BSD Lab ID: QC504871

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Aroclor-1016	5.000	5.671	113	73-139	8 23
Aroclor-1260	5.000	5.685	114	68-139	0 27

Surrogate	%REC	Limits
TCMX	92	54-121
Decachlorobiphenyl	57	15-120

RPD= Relative Percent Difference

Polychlorinated Biphenyls (PCBs)

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Field ID:	WC-RFS-072309	Batch#:	153220
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Prepared:	07/25/09
Diln Fac:	1.000	Analyzed:	07/28/09

Type: SAMPLE Lab ID: 213713-002

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	110	68-136
Decachlorobiphenyl	54	52-140

Type: BLANK Lab ID: QC504907

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	105	68-136
Decachlorobiphenyl	64	52-140

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504911	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/28/09

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	165.6	195.9	118	76-140
Aroclor-1260	165.6	205.8	124	77-141

Surrogate	%REC	Limits
TCMX	110	68-136
Decachlorobiphenyl	63	52-140

California Title 22 Metals

Lab #:	213713	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St Bypass, Richmond
Field ID:	WC-RFS-072309	Diln Fac:	1.000
Lab ID:	213713-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Arsenic	6.9	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Barium	170	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Chromium	130	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Cobalt	8.6	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Copper	79	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Lead	46	3.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Mercury	ND	0.20	153232	07/27/09	07/27/09	METHOD	EPA 7470A
Molybdenum	43	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Nickel	49	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Selenium	ND	10	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Silver	ND	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Thallium	ND	10	153173	07/23/09	07/27/09	EPA 3010A	EPA 6010B
Vanadium	35	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Zinc	280	20	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B

ND= Not Detected

RL= Reporting Limit

Batch QC Report
California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3010A
Project#:	644.014.01.003	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504712	Batch#:	153173
Matrix:	Water	Prepared:	07/23/09
Units:	ug/L		

Analyte	Result	RL	Analyzed
Antimony	ND	10	07/24/09
Arsenic	ND	5.0	07/24/09
Barium	ND	5.0	07/24/09
Beryllium	ND	2.0	07/24/09
Cadmium	ND	5.0	07/24/09
Chromium	ND	5.0	07/24/09
Cobalt	ND	5.0	07/24/09
Copper	ND	5.0	07/24/09
Lead	ND	3.1	07/27/09
Molybdenum	ND	5.0	07/24/09
Nickel	ND	5.0	07/24/09
Selenium	ND	10	07/24/09
Silver	ND	5.0	07/24/09
Thallium	ND	10	07/27/09
Vanadium	ND	5.0	07/24/09
Zinc	ND	20	07/24/09

ND= Not Detected

RL= Reporting Limit

Batch QC Report
California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3010A
Project#:	644.014.01.003	Analysis:	EPA 6010B
Matrix:	Water	Batch#:	153173
Units:	ug/L	Prepared:	07/23/09
Diln Fac:	1.000		

Type: BS Lab ID: QC504713

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	200.0	206.7	103	76-120	07/24/09
Arsenic	200.0	206.6	103	80-120	07/24/09
Barium	200.0	214.1	107	80-120	07/24/09
Beryllium	200.0	222.9	111	80-120	07/24/09
Cadmium	200.0	220.4	110	80-120	07/24/09
Chromium	200.0	206.1	103	80-120	07/24/09
Cobalt	200.0	202.4	101	80-120	07/24/09
Copper	200.0	221.1	111	80-120	07/24/09
Lead	200.0	196.7	98	80-120	07/27/09
Molybdenum	200.0	212.7	106	80-120	07/24/09
Nickel	200.0	203.3	102	80-120	07/24/09
Selenium	200.0	213.1	107	80-120	07/24/09
Silver	200.0	195.6	98	80-120	07/24/09
Thallium	100.0	105.1	105	80-120	07/27/09
Vanadium	200.0	206.8	103	80-120	07/24/09
Zinc	200.0	229.3	115	80-120	07/24/09

Type: BSD Lab ID: QC504714

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	200.0	199.7	100	76-120	3	20	07/24/09
Arsenic	200.0	204.8	102	80-120	1	20	07/24/09
Barium	200.0	207.9	104	80-120	3	20	07/24/09
Beryllium	200.0	217.6	109	80-120	2	20	07/24/09
Cadmium	200.0	214.8	107	80-120	3	20	07/24/09
Chromium	200.0	201.2	101	80-120	2	20	07/24/09
Cobalt	200.0	196.5	98	80-120	3	20	07/24/09
Copper	200.0	199.2	100	80-120	10	20	07/24/09
Lead	200.0	193.4	97	80-120	2	20	07/27/09
Molybdenum	200.0	206.5	103	80-120	3	20	07/24/09
Nickel	200.0	198.6	99	80-120	2	20	07/24/09
Selenium	200.0	211.4	106	80-120	1	20	07/24/09
Silver	200.0	191.2	96	80-120	2	20	07/24/09
Thallium	100.0	103.1	103	80-120	2	20	07/27/09
Vanadium	200.0	201.6	101	80-120	3	20	07/24/09
Zinc	200.0	205.8	103	80-120	11	20	07/24/09

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3010A
Project#:	644.014.01.003	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	153173
MSS Lab ID:	213647-001	Sampled:	07/21/09
Matrix:	Water	Received:	07/21/09
Units:	ug/L	Prepared:	07/23/09
Diln Fac:	1.000		

Type: MS

Lab ID:

QC504715

Analyte	MSS	Result	Spiked	Result	%REC	Limits	Analyzed
Antimony		<2.930	200.0	214.4	107	71-120	07/24/09
Arsenic		<1.578	200.0	222.5	111	76-124	07/24/09
Barium		72.88	200.0	280.5	104	76-120	07/24/09
Beryllium		<0.4075	200.0	224.1	112	80-120	07/24/09
Cadmium		<1.310	200.0	210.2	105	78-120	07/24/09
Chromium		<1.309	200.0	206.2	103	76-120	07/24/09
Cobalt		<1.064	200.0	201.5	101	75-120	07/24/09
Copper		2.029	200.0	216.4	107	73-120	07/24/09
Lead		5.697	200.0	207.9	101	68-120	07/24/09
Molybdenum		<1.296	200.0	215.2	108	80-120	07/24/09
Nickel		<1.276	200.0	198.1	99	72-120	07/24/09
Selenium		<2.968	200.0	219.5	110	71-125	07/24/09
Silver		<0.9305	200.0	203.8	102	65-120	07/24/09
Thallium		<2.616	100.0	100.3	100	70-120	07/27/09
Vanadium		<0.5901	200.0	209.2	105	76-120	07/24/09
Zinc		<6.143	200.0	212.3	106	73-121	07/24/09

Type : MSD

Lab ID:

QC504716

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	200.0	201.2	101	71-120	6	20	07/24/09
Arsenic	200.0	211.6	106	76-124	5	20	07/24/09
Barium	200.0	262.5	95	76-120	7	20	07/24/09
Beryllium	200.0	213.1	107	80-120	5	20	07/24/09
Cadmium	200.0	198.0	99	78-120	6	20	07/24/09
Chromium	200.0	195.4	98	76-120	5	20	07/24/09
Cobalt	200.0	189.3	95	75-120	6	20	07/24/09
Copper	200.0	204.3	101	73-120	6	20	07/24/09
Lead	200.0	196.4	95	68-120	6	20	07/24/09
Molybdenum	200.0	203.2	102	80-120	6	20	07/24/09
Nickel	200.0	185.8	93	72-120	6	20	07/24/09
Selenium	200.0	209.8	105	71-125	5	20	07/24/09
Silver	200.0	194.2	97	65-120	5	20	07/24/09
Thallium	100.0	98.82	99	70-120	1	20	07/27/09
Vanadium	200.0	198.7	99	76-120	5	20	07/24/09
Zinc	200.0	199.6	100	73-121	6	20	07/24/09

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	153232
Lab ID:	QC504968	Prepared:	07/27/09
Matrix:	Filtrate	Analyzed:	07/27/09
Units:	ug/L		

Result	RL
ND	0.20

ND= Not Detected

RL= Reporting Limit

Batch QC Report

California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	153232
Matrix:	Filtrate	Prepared:	07/27/09
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC504969	5.000	5.000	100	80-120		
BSD	QC504970	5.000	5.050	101	80-120	1	20

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	153232
Field ID:	ZZZZZZZZZZ	Sampled:	07/20/09
MSS Lab ID:	213682-005	Received:	07/22/09
Matrix:	Filtrate	Prepared:	07/27/09
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC504971	<0.03335	5.000	5.690	114	71-123		
MSD	QC504972		5.000	5.480	110	71-123	4	20

RPD= Relative Percent Difference

California Title 22 Metals

Lab #:	213713	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St Bypass, Richmond
Field ID:	WC-RFS-072309	Diln Fac:	1.000
Lab ID:	213713-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	mg/Kg	Analyzed:	07/24/09
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	ND	0.50	153177	07/23/09	EPA 3050B	EPA 6010B
Arsenic	5.4	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Barium	250	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Beryllium	0.44	0.10	153177	07/23/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Chromium	36	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Cobalt	27	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Copper	11	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Lead	9.4	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Mercury	0.045	0.021	153181	07/24/09	METHOD	EPA 7471A
Molybdenum	0.43	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Nickel	36	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153177	07/23/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153177	07/23/09	EPA 3050B	EPA 6010B
Vanadium	40	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Zinc	25	1.0	153177	07/23/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

Batch QC Report

California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504734	Batch#:	153177
Matrix:	Soil	Prepared:	07/23/09
Units:	mg/Kg	Analyzed:	07/24/09

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

Batch QC Report
California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	153177
Units:	mg/Kg	Prepared:	07/23/09
Diln Fac:	1.000	Analyzed:	07/24/09

Type: BS Lab ID: QC504735

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	97.31	97	80-120
Arsenic	50.00	48.16	96	80-120
Barium	100.0	96.35	96	80-120
Beryllium	2.500	2.632	105	80-120
Cadmium	10.00	9.578	96	80-120
Chromium	100.0	98.22	98	80-120
Cobalt	25.00	23.45	94	80-120
Copper	12.50	12.16	97	80-120
Lead	100.0	95.06	95	80-120
Molybdenum	20.00	19.64	98	80-120
Nickel	25.00	23.94	96	80-120
Selenium	50.00	47.45	95	80-120
Silver	10.00	9.718	97	80-120
Thallium	50.00	46.77	94	80-120
Vanadium	25.00	24.93	100	80-120
Zinc	25.00	22.71	91	80-120

Type: BSD Lab ID: QC504736

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	93.25	93	80-120	4	20
Arsenic	50.00	46.04	92	80-120	5	20
Barium	100.0	93.80	94	80-120	3	20
Beryllium	2.500	2.566	103	80-120	3	20
Cadmium	10.00	9.312	93	80-120	3	20
Chromium	100.0	95.85	96	80-120	2	20
Cobalt	25.00	22.86	91	80-120	3	20
Copper	12.50	11.88	95	80-120	2	20
Lead	100.0	90.65	91	80-120	5	20
Molybdenum	20.00	18.80	94	80-120	4	20
Nickel	25.00	22.94	92	80-120	4	20
Selenium	50.00	45.19	90	80-120	5	20
Silver	10.00	9.461	95	80-120	3	20
Thallium	50.00	44.62	89	80-120	5	20
Vanadium	25.00	24.27	97	80-120	3	20
Zinc	25.00	22.23	89	80-120	2	20

RPD= Relative Percent Difference

Page 1 of 1

7.0

Batch QC Report

California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	153177
MSS Lab ID:	213651-002	Sampled:	07/21/09
Matrix:	Soil	Received:	07/21/09
Units:	mg/Kg	Prepared:	07/23/09
Basis:	as received	Analyzed:	07/24/09

Type: MS Lab ID: QC504737

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln	Frac
Antimony	2.172	95.24	29.27	28	5-120	10.00	
Arsenic	3.870	47.62	46.30	89	65-120	1.000	
Barium	74.90	95.24	167.9	98	40-141	1.000	
Beryllium	0.2319	2.381	2.673	103	75-120	1.000	
Cadmium	0.06399	9.524	8.752	91	63-120	1.000	
Chromium	36.37	95.24	129.2	97	52-128	1.000	
Cobalt	7.515	23.81	28.93	90	50-120	1.000	
Copper	29.53	11.90	37.27	65	38-149	1.000	
Lead	4.067	95.24	90.27	91	49-124	1.000	
Molybdenum	2.253	19.05	18.65	86	62-120	1.000	
Nickel	23.11	23.81	44.48	90	34-148	1.000	
Selenium	<0.1318	47.62	40.36	85	63-120	1.000	
Silver	<0.06735	9.524	8.793	92	66-120	1.000	
Thallium	<0.1469	47.62	40.35	85	57-120	1.000	
Vanadium	32.22	23.81	59.51	115	41-146	1.000	
Zinc	25.10	23.81	48.73	99	25-159	1.000	

Type: MSD Lab ID: QC504738

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln	Frac
Antimony	90.91	29.99	31	5-120	7	31	10.00	
Arsenic	45.45	44.47	89	65-120	0	24	1.000	
Barium	90.91	164.8	99	40-141	1	31	1.000	
Beryllium	2.273	2.590	104	75-120	1	21	1.000	
Cadmium	9.091	8.400	92	63-120	1	20	1.000	
Chromium	90.91	121.9	94	52-128	2	25	1.000	
Cobalt	22.73	27.56	88	50-120	1	26	1.000	
Copper	11.36	37.85	73	38-149	3	28	1.000	
Lead	90.91	87.78	92	49-124	2	31	1.000	
Molybdenum	18.18	16.47	78	62-120	8	20	1.000	
Nickel	22.73	43.75	91	34-148	1	30	1.000	
Selenium	45.45	37.84	83	63-120	2	20	1.000	
Silver	9.091	8.512	94	66-120	1	20	1.000	
Thallium	45.45	39.28	86	57-120	2	20	1.000	
Vanadium	22.73	54.99	100	41-146	6	24	1.000	
Zinc	22.73	45.63	90	25-159	4	33	1.000	

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	153181
Lab ID:	QC504747	Prepared:	07/24/09
Matrix:	Soil	Analyzed:	07/24/09
Units:	mg/Kg		

Result	RL
ND	0.020

ND= Not Detected

RL= Reporting Limit

Batch QC Report

California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	153181
Matrix:	Soil	Prepared:	07/24/09
Units:	mg/Kg	Analyzed:	07/24/09
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC504748	0.5000	0.5330	107	80-120		
BSD	QC504749	0.5000	0.5370	107	80-120	1	20

RPD= Relative Percent Difference

Page 1 of 1

4.0

Batch QC Report

California Title 22 Metals

Lab #:	213713	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZ	Batch#:	153181
MSS Lab ID:	213651-002	Sampled:	07/21/09
Matrix:	Soil	Received:	07/21/09
Units:	mg/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/24/09

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC504750	<0.006165	0.5102	0.6041	118	64-138		
MSD	QC504751		0.5102	0.5612	110	64-138	7	27

RPD= Relative Percent Difference



PE Environmental, Inc.
Engineering & Environmental Services

LABORATORY: *Curtis & Compkins*

JOB NUMBER: 644.014.01.003

NAME / LOCATION: Macadie St Bypass, Richmond - 10W from APN 560 060 008

PROJECT MANAGER: KSF

CHAIN OF CUSTODY RECORD

Z13713

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

SAMPLERS: CJB

RECORDED: CJB

ANALYSIS REQUESTED

NOTES		CHAIN OF CUSTODY RECORD					
Turn Around Time:	72 hours	RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
<ul style="list-style-type: none"> • Perform analyses indicated on both soil and water samples (2 media) • Hold soil samples for one week • Soil sample field composited and homogenized 		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
		DISPATCHED BY: (Signature)	DATE	TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT: CJB drop off at CFT							

Page 1 of 1

COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 213713 Date Received 7/23/09 Number of coolers 1
 Client PR5 Project MEADE BYPASS

Date Opened 7/23/09 By (print) M.VILLEJOY (sign) M.VILLEJOY
 Date Logged in V By (print) V (sign) M.VILLEJOY

1. Did cooler come with a shipping slip (airbill, etc)
 Shipping info _____ YES NO

2A. Were custody seals present? ... YES (circle) on cooler on samples NO
 How many _____ Name _____ Date _____

2B. Were custody seals intact upon arrival? YES NO N/A

3. Were custody papers dry and intact when received? YES NO N/A

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe)

<input checked="" type="checkbox"/> Bubble Wrap	<input type="checkbox"/> Foam blocks	<input checked="" type="checkbox"/> Bags	<input type="checkbox"/> None
<input type="checkbox"/> Cloth material	<input type="checkbox"/> Cardboard	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> 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? YES NO

If YES, what time were they transferred to freezer? _____

9. Did all bottles arrive unbroken/unopened? YES NO N/A

10. Are samples in the appropriate containers for indicated tests? YES NO N/A

11. Are sample labels present, in good condition and complete? YES NO N/A

12. Do the sample labels agree with custody papers? YES NO N/A

13. Was sufficient amount of sample sent for tests requested? YES NO N/A

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles > 6mm absent in VOA samples? YES NO N/A

16. Was the client contacted concerning this sample delivery? YES NO N/A

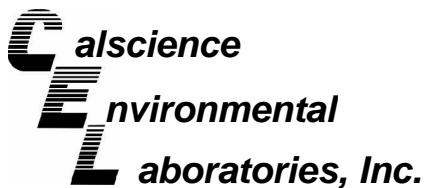
If YES, Who was called? _____ By _____ Date: _____

COMMENTS

3 VODS w/ BUBBLES

SOIL SAMPLE SPLIT OFF FOR B151

1 AMBER BROKEN WHILE PUTTING IN CUP FROM



July 29, 2009

Lisa Brooker
Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Subject: **Calscience Work Order No.: 09-07-2076**
Client Reference: 213714

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/25/2009 and analyzed in accordance with the attached chain-of-custody.

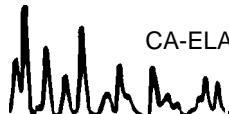
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Vikas Patel

Calscience Environmental
Laboratories, Inc.
Vikas Patel
Project Manager



CA-ELAP ID: 1230 · NELAP ID: 03220CA · CSDLAC ID: 10109 · SCAQMD ID: 93LA0830

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501



Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/25/09
Work Order No: 09-07-2076
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/kg

Project: 213714

Page 1 of 1

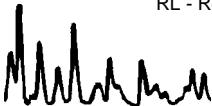
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
WC-RRA-072309	09-07-2076-2-A	07/23/09 08:45	Solid	GC 40	07/27/09	07/28/09 16:16	090727L02

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	90	30-130							

Method Blank	095-01-033-851	N/A	Solid	GC 40	07/27/09	07/28/09 13:02	090727L02
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	250	1		2,4-D	ND	100	1	
Dicamba	ND	10	1		2,4,5-TP (Silvex)	ND	10	1	
MCPP	ND	10000	1		2,4,5-T	ND	10	1	
MCPA	ND	10000	1		2,4-DB	ND	100	1	
Dichlorprop	ND	100	1		Dinoseb	ND	50	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	106	30-130							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Analytical Report



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: 07/25/09
Work Order No: 09-07-2076
Preparation: EPA 8151A
Method: EPA 8151A
Units: ug/L

Project: 213714

Page 1 of 1

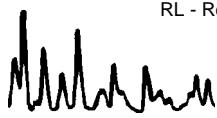
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
WC-RRA-072309	09-07-2076-1-A	07/23/09 08:45	Aqueous	GC 40	07/27/09	07/28/09 15:44	090727L01

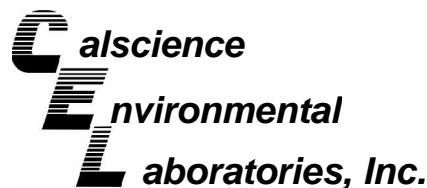
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	13	1		2,4-D	ND	5.0	1	
Dicamba	ND	0.50	1		2,4,5-TP (Silvex)	ND	0.50	1	
MCPP	ND	500	1		2,4,5-T	ND	0.50	1	
MCPA	ND	500	1		2,4-DB	ND	5.0	1	
Dichlorprop	ND	5.0	1		Dinoseb	ND	2.5	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	19	0-123							

Method Blank	095-01-034-424	N/A	Aqueous	GC 40	07/27/09	07/28/09 11:25	090727L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Dalapon	ND	13	1		2,4-D	ND	5.0	1	
Dicamba	ND	0.50	1		2,4,5-TP (Silvex)	ND	0.50	1	
MCPP	ND	500	1		2,4,5-T	ND	0.50	1	
MCPA	ND	500	1		2,4-DB	ND	5.0	1	
Dichlorprop	ND	5.0	1		Dinoseb	ND	2.5	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>					
2,4-Dichlorophenylacetic acid	82	0-123							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - LCS/LCS Duplicate



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

Date Received: N/A
Work Order No: 09-07-2076
Preparation: EPA 8151A
Method: EPA 8151A

Project: 213714

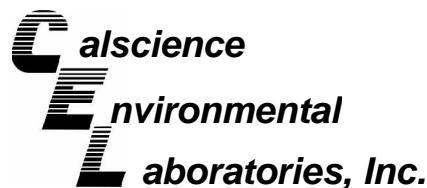
Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-033-851	Solid	GC 40	07/27/09	07/28/09	090727L02

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
2,4-D	95	85	30-130	10	0-30	
2,4,5-T	101	90	30-130	12	0-30	
2,4-DB	104	92	30-130	13	0-30	

RPD - Relative Percent Difference , CL - Control Limit



7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501



Quality Control - LCS/LCS Duplicate



Curtis & Tompkins, Ltd.
2323 Fifth Street
Berkeley, CA 94710-2407

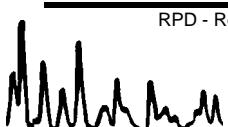
Date Received: N/A
Work Order No: 09-07-2076
Preparation: EPA 8151A
Method: EPA 8151A

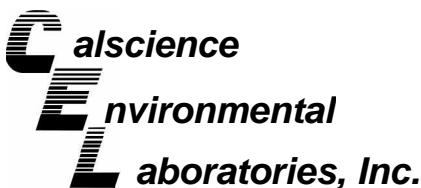
Project: 213714

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-034-424	Aqueous	GC 40	07/27/09	07/28/09	090727L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
2,4-D	90	91	30-130	0	0-30	
2,4,5-T	102	102	30-130	0	0-30	
2,4-DB	97	96	30-130	1	0-30	

RPD - Relative Percent Difference , CL - Control Limit



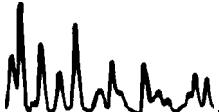


Glossary of Terms and Qualifiers



Work Order Number: 09-07-2076

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.



Curtis & Tompkins, Ltd.
 Analytical Laboratories, Since 1878
 2323 Fifth Street
 Berkeley, CA 94710
 (510) 486-0900
 (510) 486-0532

RUSH

Project Number: 213714
 Site: Meade St Bypass, Richmond

Subcontract Laboratory:

Cal Science
 7440 Lincoln Way
 Garden Grove, CA 92841-1432
 (714) 895-5494
 ATTN: Vik Patel

Results due: 07/28/09

Report Level: II

Please send report to: Lisa Brooker (lisa@ctberk.com)

*** Please report using Sample ID rather than C&T Lab #.

Sample ID	Sampled	Matrix	Analysis	C&T Lab #	Comments
WC-RRA-072309	07/23 08:45	Water	8150	213714-001	
WC-RRA-072309	07/23 08:45	Soil	8150	213714-002	

Notes:	Relinquished By:	Received By:
	<i>Jane M</i>	<i>CEC</i>
Date/Time:	7-24-09 1600	7/25/09 0925
		OKG 528411432

Signature on this form constitutes a firm Purchase Order for the services requested above.
 Page 1 of 1

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: Curtis & Tompkins

DATE: 07/25/09

TEMPERATURE: (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C - 0.2°C (CF) = 2.1 °C Blank Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: _____).
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
- Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: Air Filter Metals Only PCBs Only

Initial: YL

CUSTODY SEALS INTACT:

<input type="checkbox"/> Cooler	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Initial: <u>YL</u>
<input type="checkbox"/> Sample	<input type="checkbox"/> _____	<input type="checkbox"/> No (Not Intact)	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/>	Initial: <u>WSC</u>

SAMPLE CONDITION:

Yes No N/A

Chain-Of-Custody (COC) document(s) received with samples.....

COC document(s) received complete.....

Collection date/time, matrix, and/or # of containers logged in based on sample labels.

COC not relinquished. No date relinquished. No time relinquished.

Sampler's name indicated on COC.....

Sample container label(s) consistent with COC.....

Sample container(s) intact and good condition.....

Correct containers and volume for analyses requested.....

Analyses received within holding time.....

Proper preservation noted on COC or sample container.....

Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace.....

Tedlar bag(s) free of condensation.....

CONTAINER TYPE:

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores® TerraCores® Z08 JAR

Water: VOA VOAh VOAna₂ 125AGB 125AGBh 125AGBp 1AGB 1AGBna₂ 1AGBs

500AGB 500AGJ 500AGJs 250AGB 250CGB 250CGBs 1PB 500PB 500PBna

250PB 250PBn 125PB 125PBznna 100PJ 100PJna₂ _____ _____

Air: Tedlar® Summa® _____ **Other:** _____ Checked/Labeled by: WSC

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop Reviewed by: YL

Preservative: h: HCL n: HNO₃ na₂:Na₂S₂O₃ Na: NaOH p: H₃PO₄ s: H₂SO₄ znna: ZnAc₂+NaOH f: Field-filtered Scanned by: WSC

Total Extractable Hydrocarbons

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	WC-RRA-072309	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Prepared:	07/28/09
Diln Fac:	1.000	Analyzed:	07/29/09
Batch#:	153314		

Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213714-001

Analyte	Result	RL
Diesel C10-C24	860 Y	63
Motor Oil C24-C36	490	380

Surrogate	%REC	Limits
o-Terphenyl	63	61-127

Type: BLANK Cleanup Method: EPA 3630C
 Lab ID: QC505312

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	106	61-127

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Total Extractable Hydrocarbons

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	153314
Units:	ug/L	Prepared:	07/28/09
Diln Fac:	1.000	Analyzed:	07/29/09

Type: BS Cleanup Method: EPA 3630C
 Lab ID: QC505313

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,531	101	50-120

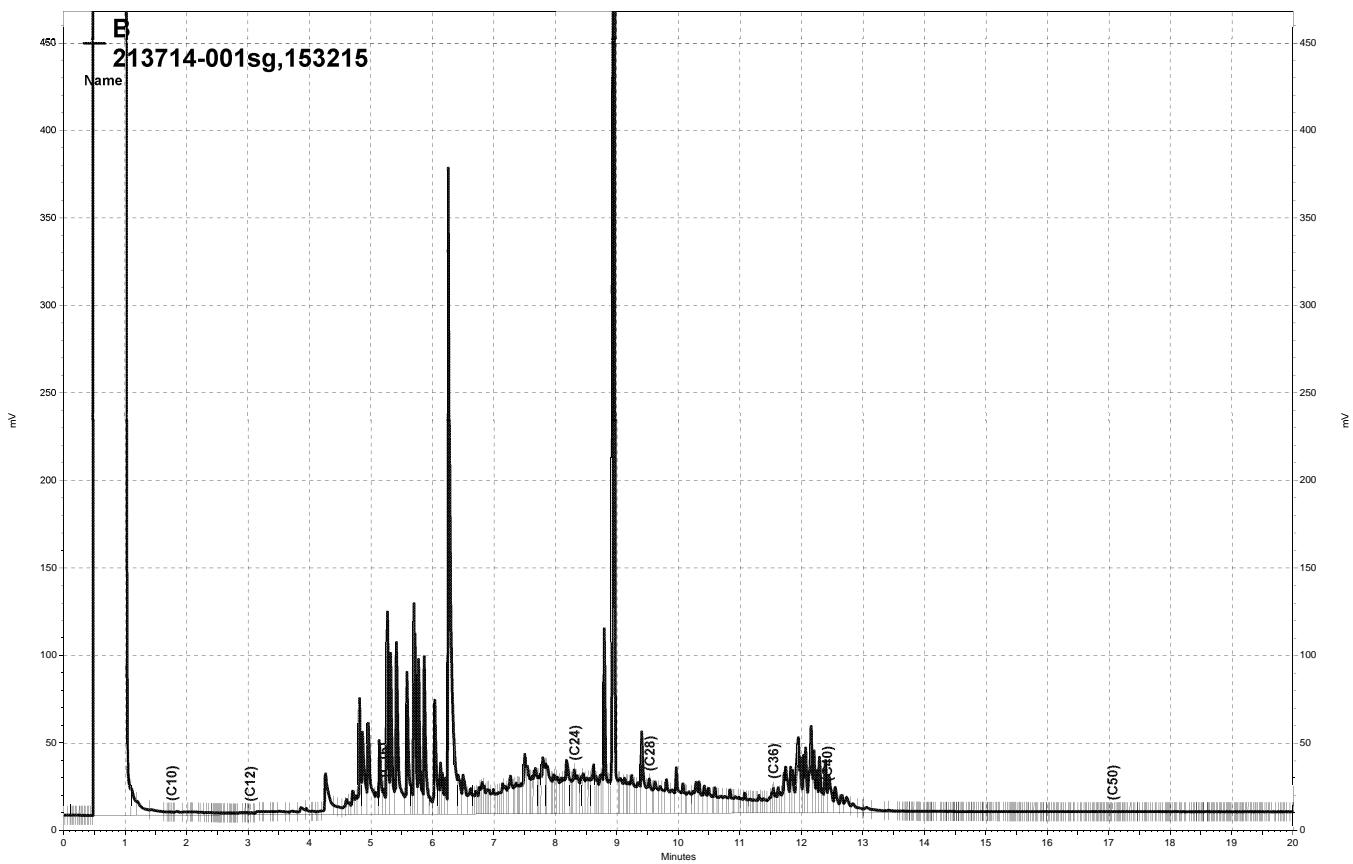
Surrogate	%REC	Limits
o-Terphenyl	101	61-127

Type: BSD Cleanup Method: EPA 3630C
 Lab ID: QC505314

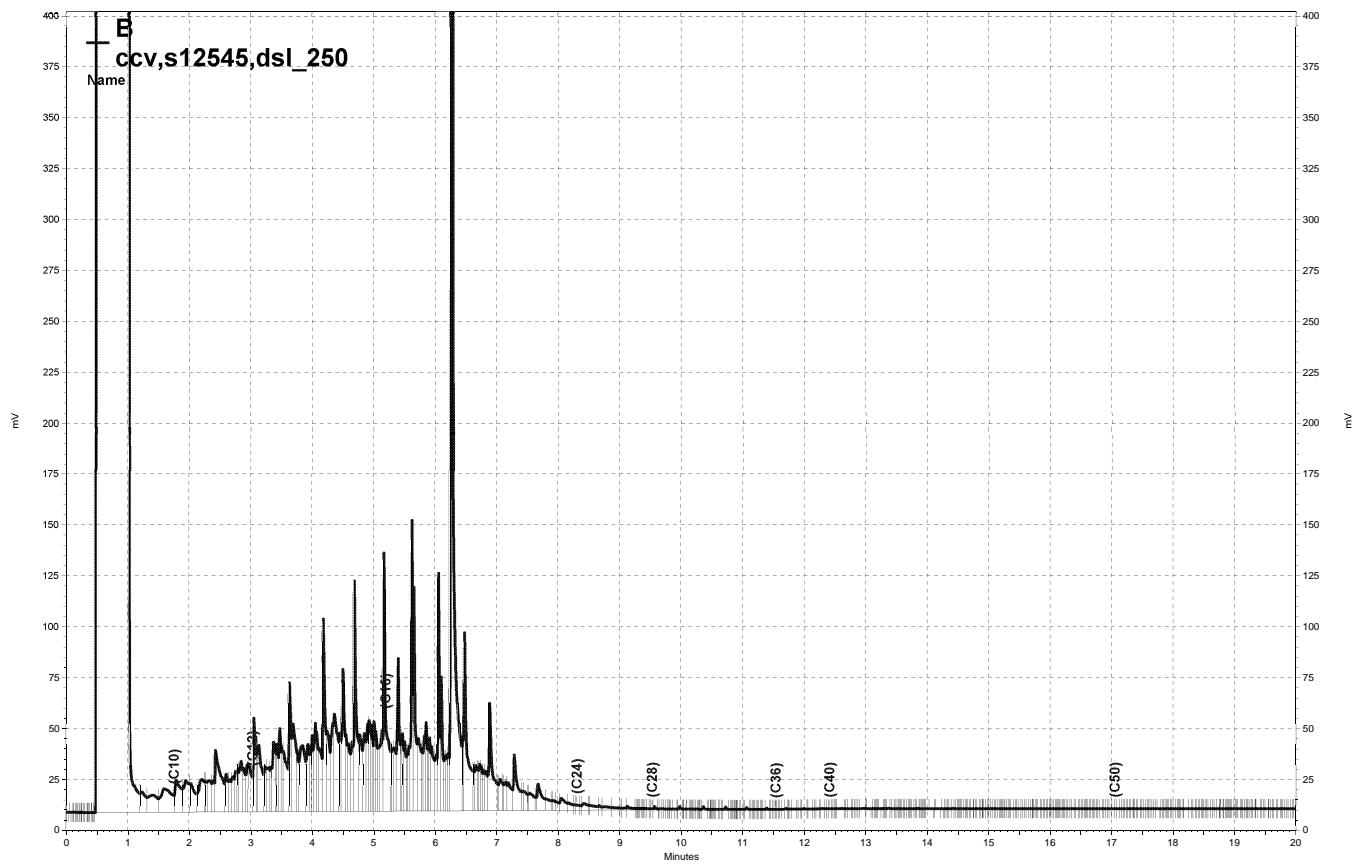
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,812	112	50-120	11	37

Surrogate	%REC	Limits
o-Terphenyl	112	61-127

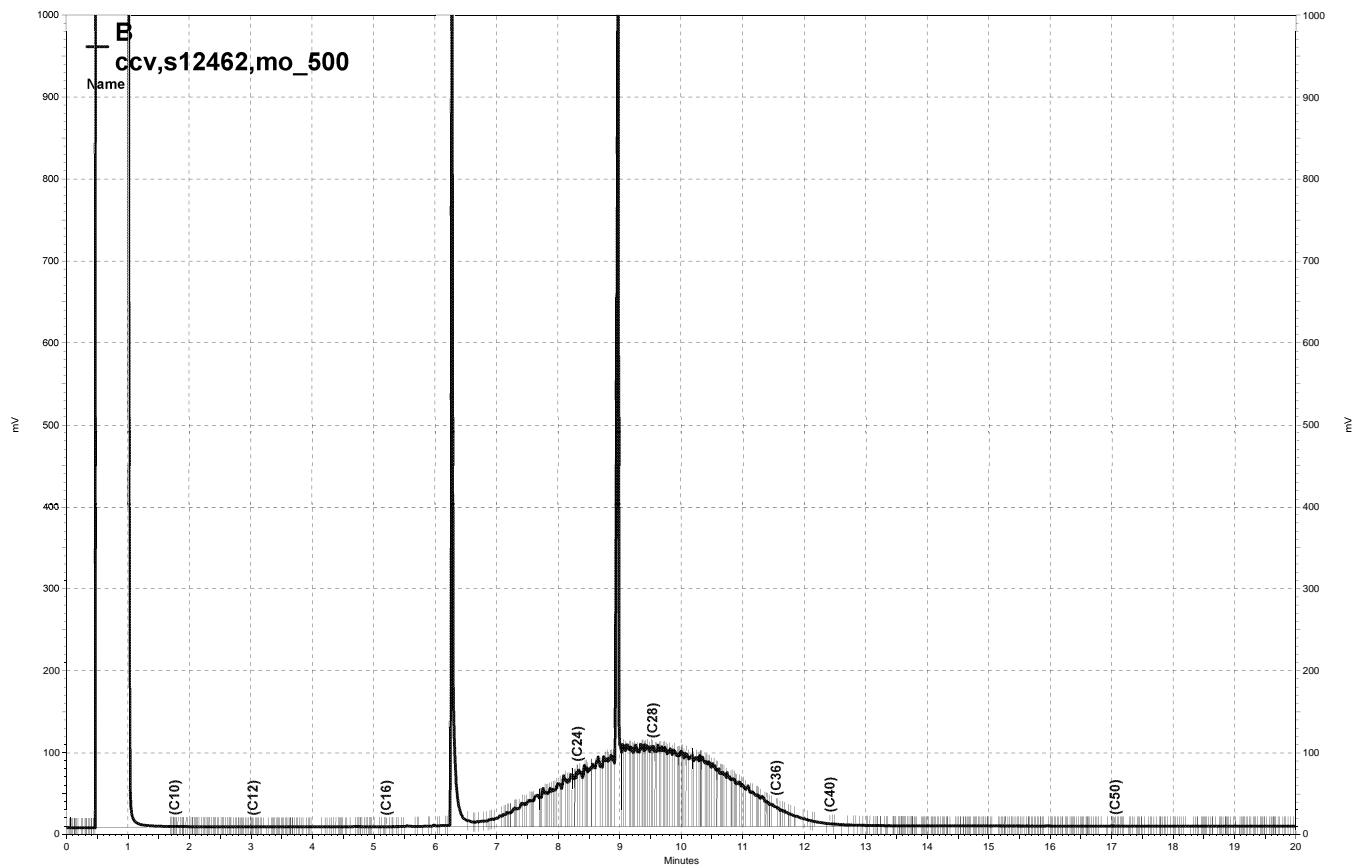
RPD= Relative Percent Difference



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Total Extractable Hydrocarbons

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	WC-RRA-072309	Batch#:	153168
Matrix:	Soil	Sampled:	07/23/09
Units:	mg/Kg	Received:	07/23/09
Basis:	as received	Prepared:	07/23/09
Diln Fac:	1.000	Analyzed:	07/26/09

Type: SAMPLE Cleanup Method: EPA 3630C
 Lab ID: 213714-002

Analyte	Result	RL
Diesel C10-C24	6.1 Y	0.99
Motor Oil C24-C36	9.1	5.0

Surrogate	%REC	Limits
o-Terphenyl	91	53-133

Type: BLANK Cleanup Method: EPA 3630C
 Lab ID: QC504699

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

Surrogate	%REC	Limits
o-Terphenyl	107	53-133

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Total Extractable Hydrocarbons

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504700	Batch#:	153168
Matrix:	Soil	Prepared:	07/23/09
Units:	mg/Kg	Analyzed:	07/26/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.98	51.15	102	52-128

Surrogate	%REC	Limits
o-Terphenyl	94	53-133

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	153168
MSS Lab ID:	213635-006	Sampled:	07/16/09
Matrix:	Soil	Received:	07/21/09
Units:	mg/Kg	Prepared:	07/23/09
Basis:	as received	Analyzed:	07/26/09
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
 Lab ID: QC504701

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	0.2842	49.95	54.53	109	33-145

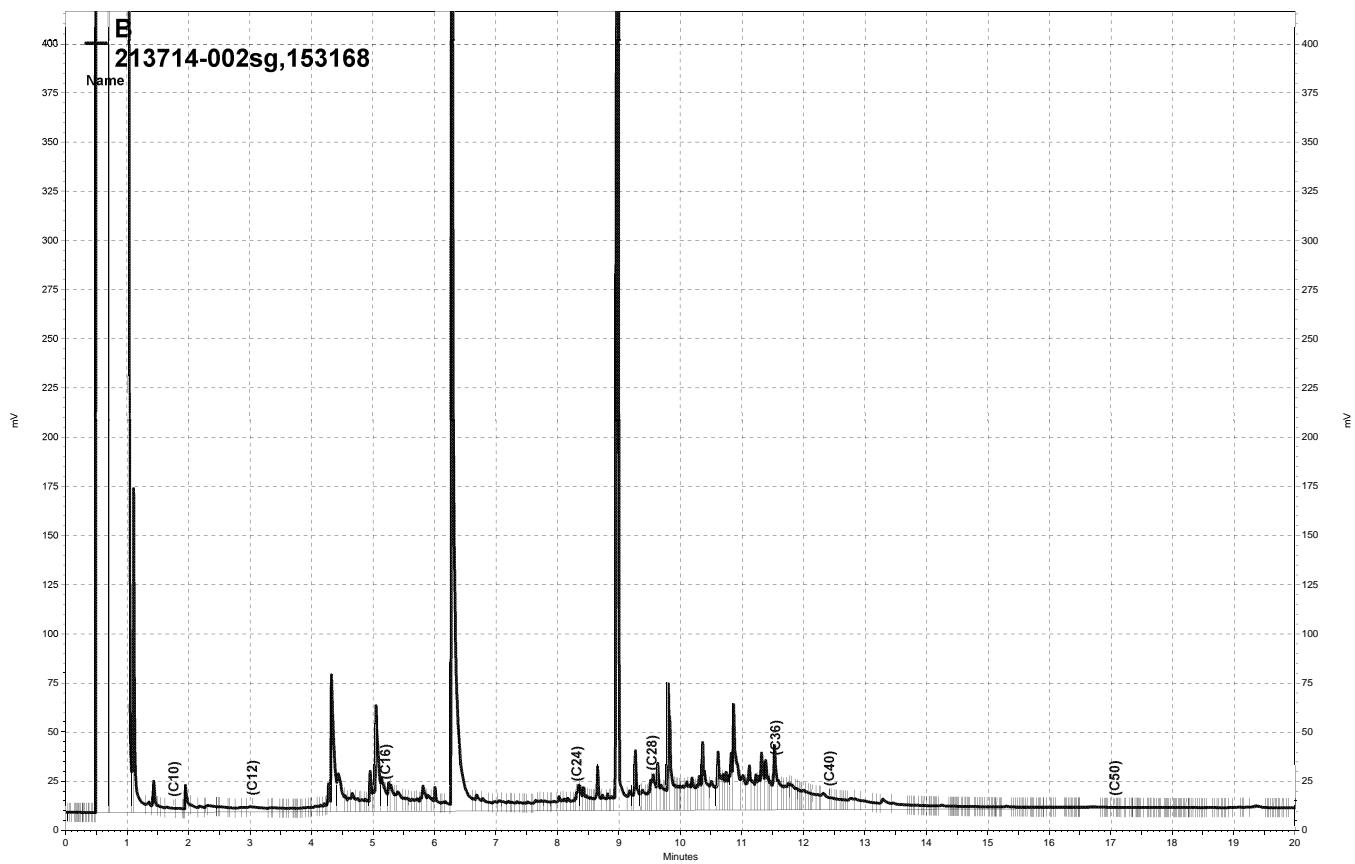
Surrogate	%REC	Limits
o-Terphenyl	98	53-133

Type: MSD Cleanup Method: EPA 3630C
 Lab ID: QC504702

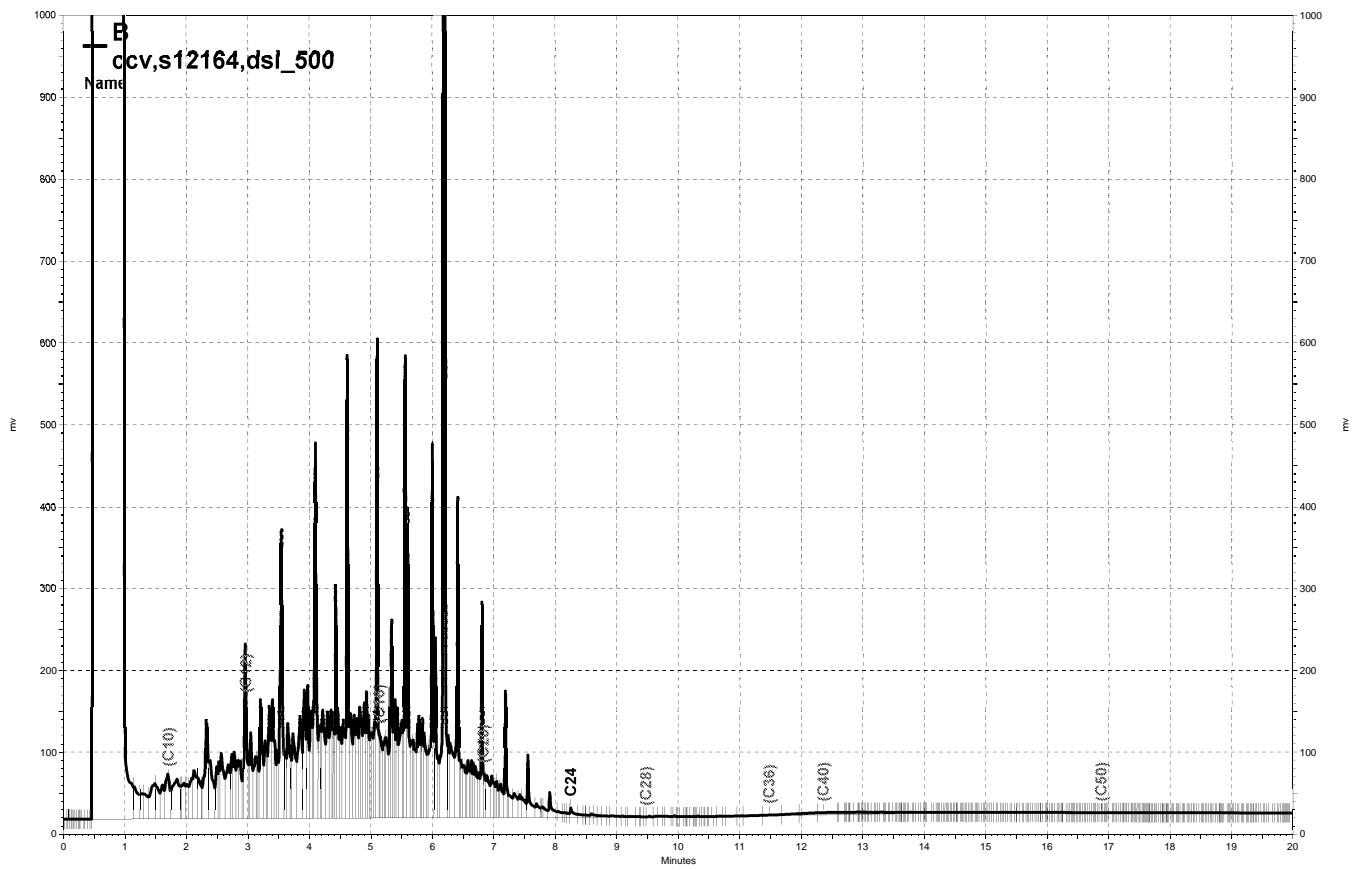
Analyte	Spiked	Result	%REC	Limits	RPD Lim
Diesel C10-C24	49.93	46.07	92	33-145	17 44

Surrogate	%REC	Limits
o-Terphenyl	81	53-133

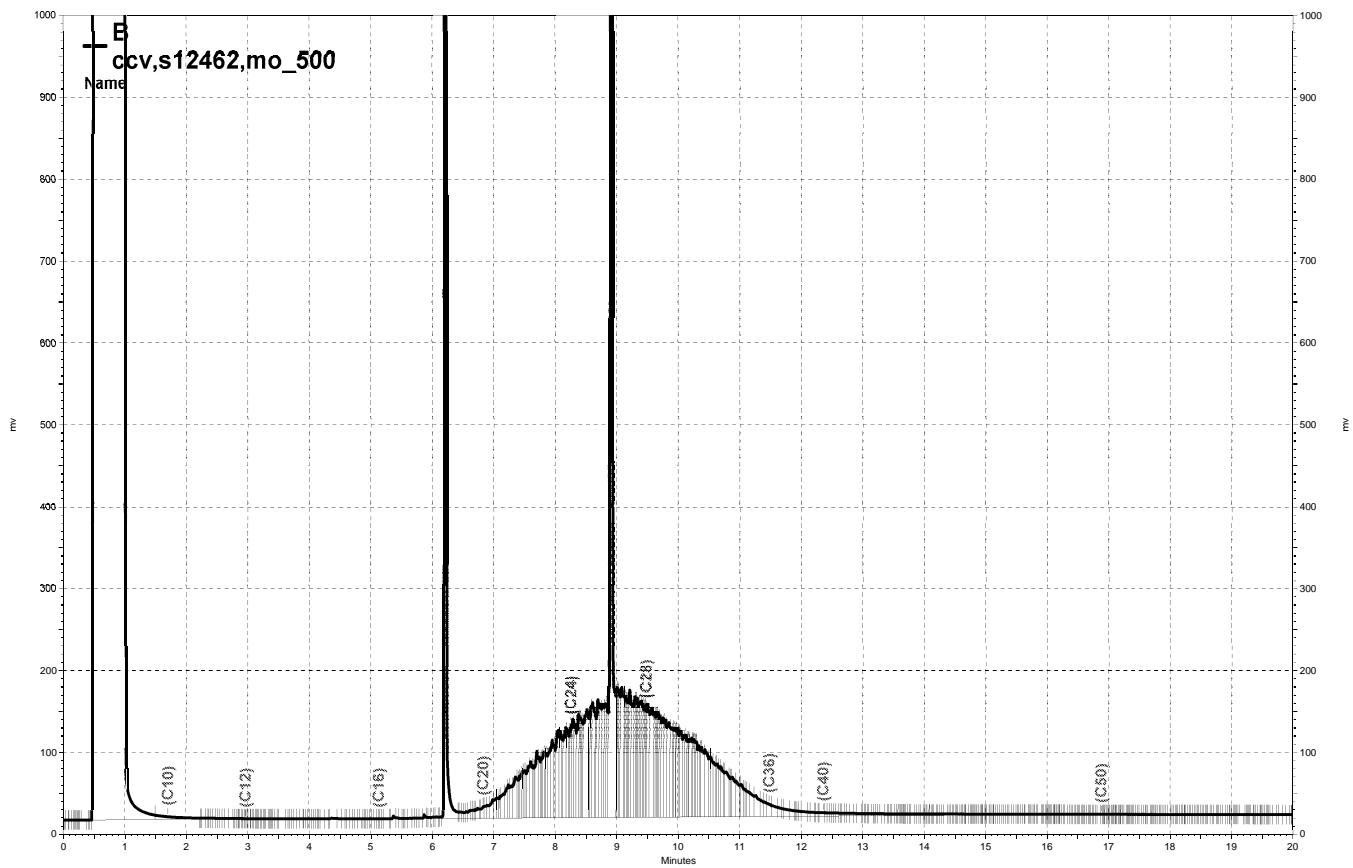
RPD= Relative Percent Difference



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— \\Lims\\gdrive\\ezchrom\\Projects\\GC15B\\Data\\206b033, B



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Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RRA-072309	Batch#:	153245
Lab ID:	213714-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	200.0		

Analyte	Result	RL
Freon 12	ND	200
Chloromethane	ND	200
Vinyl Chloride	ND	100
Bromomethane	ND	200
Chloroethane	ND	200
Trichlorofluoromethane	ND	200
Acetone	ND	2,000
Freon 113	ND	1,000
1,1-Dichloroethene	ND	100
Methylene Chloride	ND	2,000
Carbon Disulfide	ND	100
MTBE	ND	100
trans-1,2-Dichloroethene	ND	100
Vinyl Acetate	ND	2,000
1,1-Dichloroethane	ND	100
2-Butanone	ND	2,000
cis-1,2-Dichloroethene	ND	100
2,2-Dichloropropane	ND	100
Chloroform	ND	100
Bromochloromethane	ND	100
1,1,1-Trichloroethane	ND	100
1,1-Dichloropropene	ND	100
Carbon Tetrachloride	ND	100
1,2-Dichloroethane	ND	100
Benzene	ND	100
Trichloroethene	ND	100
1,2-Dichloropropane	ND	100
Bromodichloromethane	ND	100
Dibromomethane	ND	100
4-Methyl-2-Pentanone	ND	2,000
cis-1,3-Dichloropropene	ND	100
Toluene	ND	100
trans-1,3-Dichloropropene	ND	100
1,1,2-Trichloroethane	ND	100
2-Hexanone	ND	2,000
1,3-Dichloropropane	ND	100
Tetrachloroethene	ND	100

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RRA-072309	Batch#:	153245
Lab ID:	213714-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	200.0		

Analyte	Result	RL
Dibromochloromethane	ND	100
1,2-Dibromoethane	ND	100
Chlorobenzene	ND	100
1,1,1,2-Tetrachloroethane	ND	100
Ethylbenzene	ND	100
m,p-Xylenes	ND	100
o-Xylene	ND	100
Styrene	ND	100
Bromoform	ND	200
Isopropylbenzene	ND	100
1,1,2,2-Tetrachloroethane	ND	100
1,2,3-Trichloropropane	ND	100
Propylbenzene	ND	100
Bromobenzene	ND	100
1,3,5-Trimethylbenzene	ND	100
2-Chlorotoluene	ND	100
4-Chlorotoluene	ND	100
tert-Butylbenzene	ND	100
1,2,4-Trimethylbenzene	ND	100
sec-Butylbenzene	ND	100
para-Isopropyl Toluene	ND	100
1,3-Dichlorobenzene	ND	100
1,4-Dichlorobenzene	ND	100
n-Butylbenzene	ND	100
1,2-Dichlorobenzene	ND	100
1,2-Dibromo-3-Chloropropane	ND	400
1,2,4-Trichlorobenzene	ND	100
Hexachlorobutadiene	ND	100
Naphthalene	ND	400
1,2,3-Trichlorobenzene	ND	100

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-122
1,2-Dichloroethane-d4	122	77-137
Toluene-d8	100	80-120
Bromofluorobenzene	98	80-125

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	153245
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	1.000		

Type: BS Lab ID: QC505037

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	15.00	12.08	81	74-132
Benzene	15.00	14.02	93	80-120
Trichloroethene	15.00	15.29	102	80-120
Toluene	15.00	16.18	108	80-120
Chlorobenzene	15.00	14.76	98	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	93	80-122
1,2-Dichloroethane-d4	117	77-137
Toluene-d8	101	80-120
Bromofluorobenzene	86	80-125

Type: BSD Lab ID: QC505038

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	15.00	11.55	77	74-132	4	20
Benzene	15.00	13.66	91	80-120	3	20
Trichloroethene	15.00	15.38	103	80-120	1	20
Toluene	15.00	15.90	106	80-120	2	20
Chlorobenzene	15.00	14.69	98	80-120	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	92	80-122
1,2-Dichloroethane-d4	117	77-137
Toluene-d8	98	80-120
Bromofluorobenzene	88	80-125

RPD= Relative Percent Difference

Batch QC Report
Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505039	Batch#:	153245
Matrix:	Water	Analyzed:	07/27/09
Units:	ug/L		

Analyte	Result	RL
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	5.0
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

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC505039	Batch#:	153245
Matrix:	Water	Analyzed:	07/27/09
Units:	ug/L		

Analyte	Result	RL
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	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
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	0.5
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-122
1,2-Dichloroethane-d4	118	77-137
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-125

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RRA-072309	Diln Fac:	0.9709
Lab ID:	213714-002	Batch#:	153197
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/24/09

Analyte	Result	RL
Freon 12	ND	9.7
Chloromethane	ND	9.7
Vinyl Chloride	ND	9.7
Bromomethane	ND	9.7
Chloroethane	ND	9.7
Trichlorofluoromethane	ND	4.9
Acetone	ND	19
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.7
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.7
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.7
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9

ND= Not Detected

RL= Reporting Limit

Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RRA-072309	Diln Fac:	0.9709
Lab ID:	213714-002	Batch#:	153197
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/24/09

Analyte	Result	RL
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	104	71-128
1,2-Dichloroethane-d4	110	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	95	77-131

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504813	Batch#:	153197
Matrix:	Soil	Analyzed:	07/24/09
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 #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504813	Batch#:	153197
Matrix:	Soil	Analyzed:	07/24/09
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	99	71-128
1,2-Dichloroethane-d4	103	69-135
Toluene-d8	96	80-120
Bromofluorobenzene	97	77-131

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	153197
Units:	ug/Kg	Analyzed:	07/24/09
Diln Fac:	1.000		

Type: BS Lab ID: QC504814

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	20.74	83	73-135
Benzene	25.00	22.96	92	80-125
Trichloroethene	25.00	24.40	98	80-127
Toluene	25.00	23.93	96	80-126
Chlorobenzene	25.00	26.52	106	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	98	71-128
1,2-Dichloroethane-d4	106	69-135
Toluene-d8	98	80-120
Bromofluorobenzene	96	77-131

Type: BSD Lab ID: QC504815

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	21.48	86	73-135	3	20
Benzene	25.00	23.76	95	80-125	3	20
Trichloroethene	25.00	25.19	101	80-127	3	20
Toluene	25.00	24.73	99	80-126	3	20
Chlorobenzene	25.00	27.16	109	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	98	71-128
1,2-Dichloroethane-d4	103	69-135
Toluene-d8	98	80-120
Bromofluorobenzene	95	77-131

RPD= Relative Percent Difference

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	644.014.01.003	Analysis:	EPA 8260B
Field ID:	WC-RFS-072309	Diln Fac:	0.9690
MSS Lab ID:	213713-002	Batch#:	153197
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Analyzed:	07/24/09

Type: MS Lab ID: QC504847

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.9690	48.45	39.87	82	58-145
Benzene	<0.9690	48.45	41.57	86	56-126
Trichloroethene	<0.9690	48.45	40.05	83	50-142
Toluene	<0.9690	48.45	41.64	86	52-125
Chlorobenzene	<0.9690	48.45	41.28	85	46-120

Surrogate	%REC	Limits
Dibromofluoromethane	87	71-128
1,2-Dichloroethane-d4	81	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	94	77-131

Type: MSD Lab ID: QC504848

Analyte	Spiked	Result	%REC	Limits	RPD Lim
1,1-Dichloroethene	48.45	44.09	91	58-145	10 28
Benzene	48.45	45.12	93	56-126	8 26
Trichloroethene	48.45	44.03	91	50-142	9 29
Toluene	48.45	45.42	94	52-125	9 29
Chlorobenzene	48.45	45.77	94	46-120	10 29

Surrogate	%REC	Limits
Dibromofluoromethane	89	71-128
1,2-Dichloroethane-d4	81	69-135
Toluene-d8	97	80-120
Bromofluorobenzene	94	77-131

RPD= Relative Percent Difference



Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	WC-RRA-072309	Batch#:	153116
Lab ID:	213714-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Prepared:	07/23/09
Diln Fac:	10.00	Analyzed:	07/27/09

Analyte	Result	RL
N-Nitrosodimethylamine	ND	95
Phenol	ND	95
bis(2-Chloroethyl)ether	ND	95
2-Chlorophenol	ND	95
1,3-Dichlorobenzene	ND	95
1,4-Dichlorobenzene	ND	95
Benzyl alcohol	ND	95
1,2-Dichlorobenzene	ND	95
2-Methylphenol	ND	95
bis(2-Chloroisopropyl) ether	ND	95
4-Methylphenol	ND	95
N-Nitroso-di-n-propylamine	ND	95
Hexachloroethane	ND	95
Nitrobenzene	ND	95
Isophorone	ND	95
2-Nitrophenol	ND	190
2,4-Dimethylphenol	ND	95
Benzoic acid	ND	480
bis(2-Chloroethoxy)methane	ND	95
2,4-Dichlorophenol	ND	95
1,2,4-Trichlorobenzene	ND	95
Naphthalene	ND	95
4-Chloroaniline	ND	95
Hexachlorobutadiene	ND	95
4-Chloro-3-methylphenol	ND	95
2-Methylnaphthalene	ND	95
Hexachlorocyclopentadiene	ND	190
2,4,6-Trichlorophenol	ND	95
2,4,5-Trichlorophenol	ND	95
2-Chloronaphthalene	ND	95
2-Nitroaniline	ND	190
Dimethylphthalate	ND	95
Acenaphthylene	ND	95
2,6-Dinitrotoluene	ND	95
3-Nitroaniline	ND	190
Acenaphthene	ND	95
2,4-Dinitrophenol	ND	190
4-Nitrophenol	ND	190
Dibenzofuran	ND	95
2,4-Dinitrotoluene	ND	95
Diethylphthalate	ND	95
Fluorene	ND	95
4-Chlorophenyl-phenylether	ND	95
4-Nitroaniline	ND	190
4,6-Dinitro-2-methylphenol	ND	190
N-Nitrosodiphenylamine	ND	95
Azobenzene	ND	95
4-Bromophenyl-phenylether	ND	95
Hexachlorobenzene	ND	95
Pentachlorophenol	ND	190
Phenanthrrene	ND	95
Anthracene	ND	95
Di-n-butylphthalate	ND	95

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	WC-RRA-072309	Batch#:	153116
Lab ID:	213714-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Prepared:	07/23/09
Diln Fac:	10.00	Analyzed:	07/27/09

Analyte	Result	RL
Fluoranthene	ND	95
Pyrene	ND	95
Butylbenzylphthalate	ND	95
3,3'-Dichlorobenzidine	ND	190
Benzo(a)anthracene	ND	95
Chrysene	ND	95
bis(2-Ethylhexyl)phthalate	ND	95
Di-n-octylphthalate	ND	95
Benzo(b)fluoranthene	ND	95
Benzo(k)fluoranthene	ND	95
Benzo(a)pyrene	ND	95
Indeno(1,2,3-cd)pyrene	ND	95
Dibenz(a,h)anthracene	ND	95
Benzo(q,h,i)perylene	ND	95

Surrogate	%REC	Limits
2-Fluorophenol	DO	39-120
Phenol-d5	DO	41-120
2,4,6-Tribromophenol	DO	35-120
Nitrobenzene-d5	DO	56-120
2-Fluorobiphenyl	DO	56-120
Terphenyl-d14	DO	28-120

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

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Batch QC Report
Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504482	Batch#:	153116
Matrix:	Water	Prepared:	07/22/09
Units:	ug/L	Analyzed:	07/23/09

Analyte	Result	RL
N-Nitrosodimethylamine	ND	10
Phenol	ND	10
bis(2-Chloroethyl)ether	ND	10
2-Chlorophenol	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
Benzyl alcohol	ND	10
1,2-Dichlorobenzene	ND	10
2-Methylphenol	ND	10
bis(2-Chloroisopropyl) ether	ND	10
4-Methylphenol	ND	10
N-Nitroso-di-n-propylamine	ND	10
Hexachloroethane	ND	10
Nitrobenzene	ND	10
Isophorone	ND	10
2-Nitrophenol	ND	20
2,4-Dimethylphenol	ND	10
Benzoic acid	ND	50
bis(2-Chloroethoxy)methane	ND	10
2,4-Dichlorophenol	ND	10
1,2,4-Trichlorobenzene	ND	10
Naphthalene	ND	10
4-Chloroaniline	ND	10
Hexachlorobutadiene	ND	10
4-Chloro-3-methylphenol	ND	10
2-Methylnaphthalene	ND	10
Hexachlorocyclopentadiene	ND	20
2,4,6-Trichlorophenol	ND	10
2,4,5-Trichlorophenol	ND	10
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	20
Dimethylphthalate	ND	10
Acenaphthylene	ND	10
2,6-Dinitrotoluene	ND	10
3-Nitroaniline	ND	20
Acenaphthene	ND	10
2,4-Dinitrophenol	ND	20
4-Nitrophenol	ND	20
Dibenzofuran	ND	10
2,4-Dinitrotoluene	ND	10
Diethylphthalate	ND	10
Fluorene	ND	10
4-Chlorophenyl-phenylether	ND	10
4-Nitroaniline	ND	20
4,6-Dinitro-2-methylphenol	ND	20
N-Nitrosodiphenylamine	ND	10
Azobenzene	ND	10
4-Bromophenyl-phenylether	ND	10
Hexachlorobenzene	ND	10
Pentachlorophenol	ND	20
Phenanthrrene	ND	10
Anthracene	ND	10
Di-n-butylphthalate	ND	10
Fluoranthene	ND	10

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504482	Batch#:	153116
Matrix:	Water	Prepared:	07/22/09
Units:	ug/L	Analyzed:	07/23/09

Analyte	Result	RL
Pyrene	ND	10
Butylbenzylphthalate	ND	10
3,3'-Dichlorobenzidine	ND	20
Benzo(a)anthracene	ND	10
Chrysene	ND	10
bis(2-Ethylhexyl)phthalate	ND	10
Di-n-octylphthalate	ND	10
Benzo(b)fluoranthene	ND	10
Benzo(k)fluoranthene	ND	10
Benzo(a)pyrene	ND	10
Indeno(1,2,3-cd)pyrene	ND	10
Dibenz(a,h)anthracene	ND	10
Benzo(g,h,i)perylene	ND	10

Surrogate	%REC	Limits
2-Fluorophenol	66	39-120
Phenol-d5	72	41-120
2,4,6-Tribromophenol	69	35-120
Nitrobenzene-d5	73	56-120
2-Fluorobiphenyl	81	56-120
Terphenyl-d14	86	28-120

ND= Not Detected

RL= Reporting Limit

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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8270C
Matrix:	Water	Batch#:	153116
Units:	ug/L	Prepared:	07/22/09
Diln Fac:	1.000	Analyzed:	07/24/09

Type: BS Lab ID: QC504483

Analyte	Spiked	Result	%REC	Limits
Phenol	80.00	53.06	66	52-120
2-Chlorophenol	80.00	60.35	75	59-120
1,4-Dichlorobenzene	80.00	52.07	65	48-120
N-Nitroso-di-n-propylamine	80.00	54.95	69	44-120
1,2,4-Trichlorobenzene	80.00	56.60	71	46-120
4-Chloro-3-methylphenol	80.00	67.01	84	59-120
Acenaphthene	30.00	21.34	71	59-120
4-Nitrophenol	80.00	54.81	69	54-120
2,4-Dinitrotoluene	80.00	62.27	78	60-120
Pentachlorophenol	80.00	56.37	70	48-120
Pyrene	30.00	20.83	69	59-120

Surrogate	%REC	Limits
2-Fluorophenol	56	39-120
Phenol-d5	72	41-120
2,4,6-Tribromophenol	77	35-120
Nitrobenzene-d5	61	56-120
2-Fluorobiphenyl	68	56-120
Terphenyl-d14	72	28-120

Type: BSD Lab ID: QC504484

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Phenol	80.00	61.18	76	52-120	14 21
2-Chlorophenol	80.00	70.01	88	59-120	15 20
1,4-Dichlorobenzene	80.00	62.34	78	48-120	18 28
N-Nitroso-di-n-propylamine	80.00	64.85	81	44-120	17 21
1,2,4-Trichlorobenzene	80.00	63.30	79	46-120	11 26
4-Chloro-3-methylphenol	80.00	70.88	89	59-120	6 20
Acenaphthene	30.00	23.52	78	59-120	10 20
4-Nitrophenol	80.00	63.80	80	54-120	15 20
2,4-Dinitrotoluene	80.00	69.76	87	60-120	11 20
Pentachlorophenol	80.00	64.55	81	48-120	14 21
Pyrene	30.00	24.03	80	59-120	14 20

Surrogate	%REC	Limits
2-Fluorophenol	65	39-120
Phenol-d5	83	41-120
2,4,6-Tribromophenol	89	35-120
Nitrobenzene-d5	72	56-120
2-Fluorobiphenyl	74	56-120
Terphenyl-d14	82	28-120

RPD= Relative Percent Difference

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31.0

Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	WC-RRA-072309	Batch#:	153201
Lab ID:	213714-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/27/09
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

Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	WC-RRA-072309	Batch#:	153201
Lab ID:	213714-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/27/09
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	77	35-120
Phenol-d5	67	37-120
2,4,6-Tribromophenol	81	30-120
Nitrobenzene-d5	73	47-120
2-Fluorobiphenyl	79	52-120
Terphenyl-d14	75	45-120

ND= Not Detected
 RL= Reporting Limit
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Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504827	Batch#:	153201
Matrix:	Soil	Prepared:	07/24/09
Units:	ug/Kg	Analyzed:	07/27/09

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

Batch QC Report
Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504827	Batch#:	153201
Matrix:	Soil	Prepared:	07/24/09
Units:	ug/Kg	Analyzed:	07/27/09

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	65	35-120
Phenol-d5	62	37-120
2,4,6-Tribromophenol	50	30-120
Nitrobenzene-d5	61	47-120
2-Fluorobiphenyl	63	52-120
Terphenyl-d14	62	45-120

ND= Not Detected

RL= Reporting Limit

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Batch QC Report
Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504828	Batch#:	153201
Matrix:	Soil	Prepared:	07/24/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Spiked	Result	%REC	Limits
Phenol	2,659	1,999	75	37-120
2-Chlorophenol	2,659	2,084	78	44-120
1,4-Dichlorobenzene	2,659	2,033	76	51-120
N-Nitroso-di-n-propylamine	2,659	2,188	82	26-120
1,2,4-Trichlorobenzene	2,659	2,033	76	46-120
4-Chloro-3-methylphenol	2,659	2,059	77	48-120
Acenaphthene	997.0	697.7	70	50-120
4-Nitrophenol	2,659	1,946	73	39-120
2,4-Dinitrotoluene	2,659	2,107	79	50-120
Pentachlorophenol	2,659	1,842	69	26-120
Pyrene	997.0	769.1	77	47-120

Surrogate	%REC	Limits
2-Fluorophenol	78	35-120
Phenol-d5	76	37-120
2,4,6-Tribromophenol	79	30-120
Nitrobenzene-d5	72	47-120
2-Fluorobiphenyl	74	52-120
Terphenyl-d14	79	45-120

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZZ	Batch#:	153201
MSS Lab ID:	213651-002	Sampled:	07/21/09
Matrix:	Soil	Received:	07/21/09
Units:	ug/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/24/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504829

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	<66.20	2,643	1,581	60	42-120
2-Chlorophenol	<76.63	2,643	1,815	69	45-120
1,4-Dichlorobenzene	<83.05	2,643	1,588	60	50-120
N-Nitroso-di-n-propylamine	<65.50	2,643	1,690	64	35-120
1,2,4-Trichlorobenzene	<84.38	2,643	1,848	70	47-120
4-Chloro-3-methylphenol	<69.60	2,643	1,913	72	48-120
Acenaphthene	<15.13	991.1	701.8	71	49-120
4-Nitrophenol	<59.17	2,643	2,013	76	36-120
2,4-Dinitrotoluene	<72.15	2,643	1,867	71	48-120
Pentachlorophenol	<70.25	2,643	1,850	70	21-120
Pyrene	<12.81	991.1	676.4	68	40-120

Surrogate	%REC	Limits
2-Fluorophenol	74	35-120
Phenol-d5	66	37-120
2,4,6-Tribromophenol	82	30-120
Nitrobenzene-d5	74	47-120
2-Fluorobiphenyl	69	52-120
Terphenyl-d14	72	45-120

Type: MSD Lab ID: QC504830

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Phenol	2,630	1,351	51	42-120	15 34
2-Chlorophenol	2,630	1,561	59	45-120	15 34
1,4-Dichlorobenzene	2,630	1,372	52	50-120	14 33
N-Nitroso-di-n-propylamine	2,630	1,452	55	35-120	15 41
1,2,4-Trichlorobenzene	2,630	1,650	63	47-120	11 33
4-Chloro-3-methylphenol	2,630	1,706	65	48-120	11 33
Acenaphthene	986.2	634.9	64	49-120	10 32
4-Nitrophenol	2,630	1,818	69	36-120	10 40
2,4-Dinitrotoluene	2,630	1,694	64	48-120	9 33
Pentachlorophenol	2,630	1,755	67	21-120	5 48
Pyrene	986.2	632.9	64	40-120	6 33

Surrogate	%REC	Limits
2-Fluorophenol	63	35-120
Phenol-d5	56	37-120
2,4,6-Tribromophenol	75	30-120
Nitrobenzene-d5	64	47-120
2-Fluorobiphenyl	59	52-120
Terphenyl-d14	67	45-120

RPD= Relative Percent Difference

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Organochlorine Pesticides

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	WC-RRA-072309	Batch#:	153213
Lab ID:	213714-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L	Prepared:	07/24/09
Diln Fac:	10.00	Analyzed:	07/28/09

Analyte	Result	RL
alpha-BHC	ND	0.5
beta-BHC	ND	0.5
gamma-BHC	ND	0.5
delta-BHC	ND	0.5
Heptachlor	ND	0.5
Aldrin	ND	0.5
Heptachlor epoxide	ND	0.5
Endosulfan I	ND	0.5
Dieldrin	ND	1.0
4,4'-DDE	ND	1.0
Endrin	ND	1.0
Endosulfan II	ND	1.0
Endosulfan sulfate	ND	1.0
4,4'-DDD	6.9 C	1.0
Endrin aldehyde	ND	1.0
4,4'-DDT	1.7 #	1.0
alpha-Chlordane	ND	0.5
gamma-Chlordane	ND	0.5
Methoxychlor	ND #	5.0
Toxaphene	ND	10

Surrogate	%REC	Limits
TCMX	DO	36-120
Decachlorobiphenyl	DO	23-131

#= CCV drift outside limits; average CCV drift within limits per method requirements
 C= Presence confirmed, but RPD between columns exceeds 40%

DO= Diluted Out

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Organochlorine Pesticides

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504872	Batch#:	153213
Matrix:	Water	Prepared:	07/24/09
Units:	ug/L	Analyzed:	07/28/09

Analyte	Result	RL
alpha-BHC	ND	0.05
beta-BHC	ND	0.05
gamma-BHC	ND	0.05
delta-BHC	ND	0.05
Heptachlor	ND	0.05
Aldrin	ND	0.05
Heptachlor epoxide	ND	0.05
Endosulfan I	ND	0.05
Dieldrin	ND	0.1
4,4'-DDE	ND	0.1
Endrin	ND	0.1
Endosulfan II	ND	0.1
Endosulfan sulfate	ND	0.1
4,4'-DDD	ND	0.1
Endrin aldehyde	ND	0.1
4,4'-DDT	ND #	0.1
alpha-Chlordane	ND	0.05
gamma-Chlordane	ND	0.05
Methoxychlor	ND #	0.5
Toxaphene	ND	1.0

Surrogate	%REC	Limits
TCMX	69	36-120
Decachlorobiphenyl	55	23-131

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Organochlorine Pesticides

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8081B
Matrix:	Water	Batch#:	153213
Units:	ug/L	Prepared:	07/24/09
Diln Fac:	1.000	Analyzed:	07/28/09

Type: BS Lab ID: QC504873

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	0.2000	0.1600	80	63-128
Heptachlor	0.2000	0.1431	72	50-127
Aldrin	0.2000	0.1476	74	45-124
Dieldrin	0.4000	0.3084	77	58-132
Endrin	0.4000	0.2973	74	57-135
4,4'-DDT	0.4000	0.2708 #	68	50-145

Surrogate	%REC	Limits
TCMX	73	36-120
Decachlorobiphenyl	57	23-131

Type: BSD Lab ID: QC504874

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	0.2000	0.1595	80	63-128	0	21
Heptachlor	0.2000	0.1445	72	50-127	1	31
Aldrin	0.2000	0.1465	73	45-124	1	30
Dieldrin	0.4000	0.3036	76	58-132	2	21
Endrin	0.4000	0.2914	73	57-135	2	27
4,4'-DDT	0.4000	0.2572 #	64	50-145	5	27

Surrogate	%REC	Limits
TCMX	75	36-120
Decachlorobiphenyl	52	23-131

#= CCV drift outside limits; average CCV drift within limits per method requirements
RPD= Relative Percent Difference

Organochlorine Pesticides

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	WC-RRA-072309	Batch#:	153220
Lab ID:	213714-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/27/09
Diln Fac:	1.000		

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	3.0 C	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	80	44-126
Decachlorobiphenyl	55	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

C= Presence confirmed, but RPD between columns exceeds 40%

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Organochlorine Pesticides

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504907	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Result	RL
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
gamma-BHC	ND	1.7
delta-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
Endosulfan sulfate	ND	3.3
4,4'-DDD	ND	3.3
Endrin aldehyde	ND	3.3
4,4'-DDT	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Methoxychlor	ND #	17
Toxaphene	ND	59

Surrogate	%REC	Limits
TCMX	82	44-126
Decachlorobiphenyl	57	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements

ND= Not Detected

RL= Reporting Limit

Batch QC Report
Organochlorine Pesticides

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504908	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/27/09

Analyte	Spiked	Result	%REC	Limits
gamma-BHC	13.34	10.22	77	45-121
Heptachlor	13.34	9.646	72	39-127
Aldrin	13.34	9.827	74	43-120
Dieldrin	26.68	19.11	72	43-126
Endrin	26.68	19.14	72	30-130
4,4'-DDT	26.68	19.80	74	41-133

Surrogate	%REC	Limits
TCMX	78	44-126
Decachlorobiphenyl	51	38-139



Curtis & Tompkins, Ltd.

Batch QC Report

Organochlorine Pesticides

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8081B
Field ID:	WC-RRA-072309	Batch#:	153220
MSS Lab ID:	213714-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	ug/Kg	Prepared:	07/25/09
Basis:	as received	Analyzed:	07/28/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504909

Analyte	MSS Result	Spiked	Result	%REC	Limits
gamma-BHC	<0.2956	13.37	11.32	85	41-132
Heptachlor	<0.2240	13.37	11.05	83	40-130
Aldrin	3.015	13.37	11.32	62	45-122
Dieldrin	<0.3596	26.75	20.74	78	45-130
Endrin	<0.4128	26.75	21.39	80	42-139
4,4'-DDT	0.9684	26.75	19.72 #	70	30-139

Surrogate	%REC	Limits
TCMX	82	44-126
Decachlorobiphenyl	53	38-139

Type: MSD Lab ID: QC504910

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
gamma-BHC	13.30	10.74	81	41-132	5	34
Heptachlor	13.30	10.87	82	40-130	1	39
Aldrin	13.30	11.21	62	45-122	0	32
Dieldrin	26.60	20.13	76	45-130	2	34
Endrin	26.60	20.80	78	42-139	2	40
4,4'-DDT	26.60	19.77 #	71	30-139	1	42

Surrogate	%REC	Limits
TCMX	81	44-126
Decachlorobiphenyl	49	38-139

#= CCV drift outside limits; average CCV drift within limits per method requirements
PPD= Relative Percent Difference

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Polychlorinated Biphenyls (PCBs)

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8082
Field ID:	WC-RRA-072309	Batch#:	153212
Matrix:	Water	Sampled:	07/23/09
Units:	ug/L	Received:	07/23/09
Diln Fac:	1.000	Prepared:	07/24/09

Type: SAMPLE Analyzed: 07/28/09
 Lab ID: 213714-001

Analyte	Result	RL
Aroclor-1016	ND	0.50
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.50
Aroclor-1242	ND	0.50
Aroclor-1248	ND	0.50
Aroclor-1254	ND	0.50
Aroclor-1260	ND	0.50

Surrogate	%REC	Limits
TCMX	34 *	54-121
Decachlorobiphenyl	19	15-120

Type: BLANK Analyzed: 07/27/09
 Lab ID: QC504869

Analyte	Result	RL
Aroclor-1016	ND	0.50
Aroclor-1221	ND	1.0
Aroclor-1232	ND	0.50
Aroclor-1242	ND	0.50
Aroclor-1248	ND	0.50
Aroclor-1254	ND	0.50
Aroclor-1260	ND	0.50

Surrogate	%REC	Limits
TCMX	77	54-121
Decachlorobiphenyl	53	15-120

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3520C
Project#:	644.014.01.003	Analysis:	EPA 8082
Matrix:	Water	Batch#:	153212
Units:	ug/L	Prepared:	07/24/09
Diln Fac:	1.000	Analyzed:	07/27/09

Type: BS Lab ID: QC504870

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	5.000	5.238	105	73-139
Aroclor-1260	5.000	5.711	114	68-139

Surrogate	%REC	Limits
TCMX	83	54-121
Decachlorobiphenyl	59	15-120

Type: BSD Lab ID: QC504871

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Aroclor-1016	5.000	5.671	113	73-139	8 23
Aroclor-1260	5.000	5.685	114	68-139	0 27

Surrogate	%REC	Limits
TCMX	92	54-121
Decachlorobiphenyl	57	15-120

RPD= Relative Percent Difference

Polychlorinated Biphenyls (PCBs)

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Field ID:	WC-RRA-072309	Batch#:	153220
Matrix:	Soil	Sampled:	07/23/09
Units:	ug/Kg	Received:	07/23/09
Basis:	as received	Prepared:	07/25/09
Diln Fac:	1.000	Analyzed:	07/28/09

Type: SAMPLE Lab ID: 213714-002

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	101	68-136
Decachlorobiphenyl	56	52-140

Type: BLANK Lab ID: QC504907

Analyte	Result	RL
Aroclor-1016	ND	12
Aroclor-1221	ND	24
Aroclor-1232	ND	12
Aroclor-1242	ND	12
Aroclor-1248	ND	12
Aroclor-1254	ND	12
Aroclor-1260	ND	12

Surrogate	%REC	Limits
TCMX	105	68-136
Decachlorobiphenyl	64	52-140

ND= Not Detected

RL= Reporting Limit

Batch QC Report

Polychlorinated Biphenyls (PCBs)

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	644.014.01.003	Analysis:	EPA 8082
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC504911	Batch#:	153220
Matrix:	Soil	Prepared:	07/25/09
Units:	ug/Kg	Analyzed:	07/28/09

Analyte	Spiked	Result	%REC	Limits
Aroclor-1016	165.6	195.9	118	76-140
Aroclor-1260	165.6	205.8	124	77-141

Surrogate	%REC	Limits
TCMX	110	68-136
Decachlorobiphenyl	63	52-140

California Title 22 Metals

Lab #:	213714	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St Bypass, Richmond
Field ID:	WC-RRA-072309	Diln Fac:	1.000
Lab ID:	213714-001	Sampled:	07/23/09
Matrix:	Water	Received:	07/23/09
Units:	ug/L		

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	10	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Arsenic	ND	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Barium	57	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Beryllium	ND	2.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Cadmium	ND	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Chromium	29	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Cobalt	ND	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Copper	34	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Lead	5.9	3.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Mercury	ND	0.20	153232	07/27/09	07/27/09	METHOD	EPA 7470A
Molybdenum	8.4	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Nickel	15	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Selenium	ND	10	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Silver	ND	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Thallium	ND	10	153173	07/23/09	07/27/09	EPA 3010A	EPA 6010B
Vanadium	9.0	5.0	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B
Zinc	150	20	153173	07/23/09	07/24/09	EPA 3010A	EPA 6010B

ND= Not Detected

RL= Reporting Limit

Batch QC Report
California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3010A
Project#:	644.014.01.003	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504712	Batch#:	153173
Matrix:	Water	Prepared:	07/23/09
Units:	ug/L		

Analyte	Result	RL	Analyzed
Antimony	ND	10	07/24/09
Arsenic	ND	5.0	07/24/09
Barium	ND	5.0	07/24/09
Beryllium	ND	2.0	07/24/09
Cadmium	ND	5.0	07/24/09
Chromium	ND	5.0	07/24/09
Cobalt	ND	5.0	07/24/09
Copper	ND	5.0	07/24/09
Lead	ND	3.1	07/27/09
Molybdenum	ND	5.0	07/24/09
Nickel	ND	5.0	07/24/09
Selenium	ND	10	07/24/09
Silver	ND	5.0	07/24/09
Thallium	ND	10	07/27/09
Vanadium	ND	5.0	07/24/09
Zinc	ND	20	07/24/09

ND= Not Detected

RL= Reporting Limit

Batch QC Report
California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3010A
Project#:	644.014.01.003	Analysis:	EPA 6010B
Matrix:	Water	Batch#:	153173
Units:	ug/L	Prepared:	07/23/09
Diln Fac:	1.000		

Type: BS Lab ID: QC504713

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	200.0	206.7	103	76-120	07/24/09
Arsenic	200.0	206.6	103	80-120	07/24/09
Barium	200.0	214.1	107	80-120	07/24/09
Beryllium	200.0	222.9	111	80-120	07/24/09
Cadmium	200.0	220.4	110	80-120	07/24/09
Chromium	200.0	206.1	103	80-120	07/24/09
Cobalt	200.0	202.4	101	80-120	07/24/09
Copper	200.0	221.1	111	80-120	07/24/09
Lead	200.0	196.7	98	80-120	07/27/09
Molybdenum	200.0	212.7	106	80-120	07/24/09
Nickel	200.0	203.3	102	80-120	07/24/09
Selenium	200.0	213.1	107	80-120	07/24/09
Silver	200.0	195.6	98	80-120	07/24/09
Thallium	100.0	105.1	105	80-120	07/27/09
Vanadium	200.0	206.8	103	80-120	07/24/09
Zinc	200.0	229.3	115	80-120	07/24/09

Type: BSD Lab ID: QC504714

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	200.0	199.7	100	76-120	3	20	07/24/09
Arsenic	200.0	204.8	102	80-120	1	20	07/24/09
Barium	200.0	207.9	104	80-120	3	20	07/24/09
Beryllium	200.0	217.6	109	80-120	2	20	07/24/09
Cadmium	200.0	214.8	107	80-120	3	20	07/24/09
Chromium	200.0	201.2	101	80-120	2	20	07/24/09
Cobalt	200.0	196.5	98	80-120	3	20	07/24/09
Copper	200.0	199.2	100	80-120	10	20	07/24/09
Lead	200.0	193.4	97	80-120	2	20	07/27/09
Molybdenum	200.0	206.5	103	80-120	3	20	07/24/09
Nickel	200.0	198.6	99	80-120	2	20	07/24/09
Selenium	200.0	211.4	106	80-120	1	20	07/24/09
Silver	200.0	191.2	96	80-120	2	20	07/24/09
Thallium	100.0	103.1	103	80-120	2	20	07/27/09
Vanadium	200.0	201.6	101	80-120	3	20	07/24/09
Zinc	200.0	205.8	103	80-120	11	20	07/24/09

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3010A
Project#:	644.014.01.003	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	153173
MSS Lab ID:	213647-001	Sampled:	07/21/09
Matrix:	Water	Received:	07/21/09
Units:	ug/L	Prepared:	07/23/09
Diln Fac:	1.000		

Type: MS Lab ID: QC504715

Analyte	MSS	Result	Spiked	Result	%REC	Limits	Analyzed
Antimony		<2.930	200.0	214.4	107	71-120	07/24/09
Arsenic		<1.578	200.0	222.5	111	76-124	07/24/09
Barium		72.88	200.0	280.5	104	76-120	07/24/09
Beryllium		<0.4075	200.0	224.1	112	80-120	07/24/09
Cadmium		<1.310	200.0	210.2	105	78-120	07/24/09
Chromium		<1.309	200.0	206.2	103	76-120	07/24/09
Cobalt		<1.064	200.0	201.5	101	75-120	07/24/09
Copper		2.029	200.0	216.4	107	73-120	07/24/09
Lead		5.697	200.0	207.9	101	68-120	07/24/09
Molybdenum		<1.296	200.0	215.2	108	80-120	07/24/09
Nickel		<1.276	200.0	198.1	99	72-120	07/24/09
Selenium		<2.968	200.0	219.5	110	71-125	07/24/09
Silver		<0.9305	200.0	203.8	102	65-120	07/24/09
Thallium		<2.616	100.0	100.3	100	70-120	07/27/09
Vanadium		<0.5901	200.0	209.2	105	76-120	07/24/09
Zinc		<6.143	200.0	212.3	106	73-121	07/24/09

Type: MSD Lab ID: QC504716

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	200.0	201.2	101	71-120	6	20	07/24/09
Arsenic	200.0	211.6	106	76-124	5	20	07/24/09
Barium	200.0	262.5	95	76-120	7	20	07/24/09
Beryllium	200.0	213.1	107	80-120	5	20	07/24/09
Cadmium	200.0	198.0	99	78-120	6	20	07/24/09
Chromium	200.0	195.4	98	76-120	5	20	07/24/09
Cobalt	200.0	189.3	95	75-120	6	20	07/24/09
Copper	200.0	204.3	101	73-120	6	20	07/24/09
Lead	200.0	196.4	95	68-120	6	20	07/24/09
Molybdenum	200.0	203.2	102	80-120	6	20	07/24/09
Nickel	200.0	185.8	93	72-120	6	20	07/24/09
Selenium	200.0	209.8	105	71-125	5	20	07/24/09
Silver	200.0	194.2	97	65-120	5	20	07/24/09
Thallium	100.0	98.82	99	70-120	1	20	07/27/09
Vanadium	200.0	198.7	99	76-120	5	20	07/24/09
Zinc	200.0	199.6	100	73-121	6	20	07/24/09

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	153232
Lab ID:	QC504968	Prepared:	07/27/09
Matrix:	Filtrate	Analyzed:	07/27/09
Units:	ug/L		

Result	RL
ND	0.20

ND= Not Detected

RL= Reporting Limit

Batch QC Report

California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	153232
Matrix:	Filtrate	Prepared:	07/27/09
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC504969	5.000	5.000	100	80-120		
BSD	QC504970	5.000	5.050	101	80-120	1	20

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	153232
Field ID:	ZZZZZZZZZZ	Sampled:	07/20/09
MSS Lab ID:	213682-005	Received:	07/22/09
Matrix:	Filtrate	Prepared:	07/27/09
Units:	ug/L	Analyzed:	07/27/09
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC504971	<0.03335	5.000	5.690	114	71-123		
MSD	QC504972		5.000	5.480	110	71-123	4	20

RPD= Relative Percent Difference

California Title 22 Metals

Lab #:	213714	Project#:	644.014.01.003
Client:	PES Environmental, Inc.	Location:	Meade St Bypass, Richmond
Field ID:	WC-RRA-072309	Diln Fac:	1.000
Lab ID:	213714-002	Sampled:	07/23/09
Matrix:	Soil	Received:	07/23/09
Units:	mg/Kg	Analyzed:	07/24/09
Basis:	as received		

Analyte	Result	RL	Batch#	Prepared	Prep	Analysis
Antimony	0.80	0.50	153177	07/23/09	EPA 3050B	EPA 6010B
Arsenic	3.0	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Barium	88	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Beryllium	0.31	0.10	153177	07/23/09	EPA 3050B	EPA 6010B
Cadmium	ND	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Chromium	38	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Cobalt	4.6	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Copper	14	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Lead	3.2	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Mercury	0.34	0.020	153180	07/24/09	METHOD	EPA 7471A
Molybdenum	0.27	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Nickel	33	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Selenium	ND	0.50	153177	07/23/09	EPA 3050B	EPA 6010B
Silver	ND	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Thallium	ND	0.50	153177	07/23/09	EPA 3050B	EPA 6010B
Vanadium	21	0.25	153177	07/23/09	EPA 3050B	EPA 6010B
Zinc	28	1.0	153177	07/23/09	EPA 3050B	EPA 6010B

ND= Not Detected

RL= Reporting Limit

Batch QC Report
California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC504734	Batch#:	153177
Matrix:	Soil	Prepared:	07/23/09
Units:	mg/Kg	Analyzed:	07/24/09

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

Batch QC Report
California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	153177
Units:	mg/Kg	Prepared:	07/23/09
Diln Fac:	1.000	Analyzed:	07/24/09

Type: BS Lab ID: QC504735

Analyte	Spiked	Result	%REC	Limits
Antimony	100.0	97.31	97	80-120
Arsenic	50.00	48.16	96	80-120
Barium	100.0	96.35	96	80-120
Beryllium	2.500	2.632	105	80-120
Cadmium	10.00	9.578	96	80-120
Chromium	100.0	98.22	98	80-120
Cobalt	25.00	23.45	94	80-120
Copper	12.50	12.16	97	80-120
Lead	100.0	95.06	95	80-120
Molybdenum	20.00	19.64	98	80-120
Nickel	25.00	23.94	96	80-120
Selenium	50.00	47.45	95	80-120
Silver	10.00	9.718	97	80-120
Thallium	50.00	46.77	94	80-120
Vanadium	25.00	24.93	100	80-120
Zinc	25.00	22.71	91	80-120

Type: BSD Lab ID: QC504736

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	100.0	93.25	93	80-120	4	20
Arsenic	50.00	46.04	92	80-120	5	20
Barium	100.0	93.80	94	80-120	3	20
Beryllium	2.500	2.566	103	80-120	3	20
Cadmium	10.00	9.312	93	80-120	3	20
Chromium	100.0	95.85	96	80-120	2	20
Cobalt	25.00	22.86	91	80-120	3	20
Copper	12.50	11.88	95	80-120	2	20
Lead	100.0	90.65	91	80-120	5	20
Molybdenum	20.00	18.80	94	80-120	4	20
Nickel	25.00	22.94	92	80-120	4	20
Selenium	50.00	45.19	90	80-120	5	20
Silver	10.00	9.461	95	80-120	3	20
Thallium	50.00	44.62	89	80-120	5	20
Vanadium	25.00	24.27	97	80-120	3	20
Zinc	25.00	22.23	89	80-120	2	20

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	644.014.01.003	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	153177
MSS Lab ID:	213651-002	Sampled:	07/21/09
Matrix:	Soil	Received:	07/21/09
Units:	mg/Kg	Prepared:	07/23/09
Basis:	as received	Analyzed:	07/24/09

Type: MS Lab ID: QC504737

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln	Frac
Antimony	2.172	95.24	29.27	28	5-120	10.00	
Arsenic	3.870	47.62	46.30	89	65-120	1.000	
Barium	74.90	95.24	167.9	98	40-141	1.000	
Beryllium	0.2319	2.381	2.673	103	75-120	1.000	
Cadmium	0.06399	9.524	8.752	91	63-120	1.000	
Chromium	36.37	95.24	129.2	97	52-128	1.000	
Cobalt	7.515	23.81	28.93	90	50-120	1.000	
Copper	29.53	11.90	37.27	65	38-149	1.000	
Lead	4.067	95.24	90.27	91	49-124	1.000	
Molybdenum	2.253	19.05	18.65	86	62-120	1.000	
Nickel	23.11	23.81	44.48	90	34-148	1.000	
Selenium	<0.1318	47.62	40.36	85	63-120	1.000	
Silver	<0.06735	9.524	8.793	92	66-120	1.000	
Thallium	<0.1469	47.62	40.35	85	57-120	1.000	
Vanadium	32.22	23.81	59.51	115	41-146	1.000	
Zinc	25.10	23.81	48.73	99	25-159	1.000	

Type: MSD Lab ID: QC504738

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln	Frac
Antimony	90.91	29.99	31	5-120	7	31	10.00	
Arsenic	45.45	44.47	89	65-120	0	24	1.000	
Barium	90.91	164.8	99	40-141	1	31	1.000	
Beryllium	2.273	2.590	104	75-120	1	21	1.000	
Cadmium	9.091	8.400	92	63-120	1	20	1.000	
Chromium	90.91	121.9	94	52-128	2	25	1.000	
Cobalt	22.73	27.56	88	50-120	1	26	1.000	
Copper	11.36	37.85	73	38-149	3	28	1.000	
Lead	90.91	87.78	92	49-124	2	31	1.000	
Molybdenum	18.18	16.47	78	62-120	8	20	1.000	
Nickel	22.73	43.75	91	34-148	1	30	1.000	
Selenium	45.45	37.84	83	63-120	2	20	1.000	
Silver	9.091	8.512	94	66-120	1	20	1.000	
Thallium	45.45	39.28	86	57-120	2	20	1.000	
Vanadium	22.73	54.99	100	41-146	6	24	1.000	
Zinc	22.73	45.63	90	25-159	4	33	1.000	

RPD= Relative Percent Difference

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Batch QC Report

California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	153180
Lab ID:	QC504741	Prepared:	07/24/09
Matrix:	Soil	Analyzed:	07/24/09
Units:	mg/Kg		

Result	RL
ND	0.020

ND= Not Detected

RL= Reporting Limit

Batch QC Report

California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	153180
Matrix:	Soil	Prepared:	07/24/09
Units:	mg/Kg	Analyzed:	07/24/09
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC504742	0.5000	0.5300	106	80-120		
BSD	QC504743	0.5000	0.4930	99	80-120	7	20

RPD= Relative Percent Difference

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4.0

Batch QC Report

California Title 22 Metals

Lab #:	213714	Location:	Meade St Bypass, Richmond
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	644.014.01.003	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	153180
MSS Lab ID:	213681-001	Sampled:	07/20/09
Matrix:	Soil	Received:	07/22/09
Units:	mg/Kg	Prepared:	07/24/09
Basis:	as received	Analyzed:	07/24/09

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC504744	0.05543	0.4808	0.5606	105	64-138		
MSD	QC504745		0.4902	0.5147	94	64-138	10	27

RPD= Relative Percent Difference

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5.0



PE Environmental, Inc.

Engineering & Environmental Services

CHAIN OF CUSTODY RECORD

LABORATORY: CURTIS & LOMAXINS

JOB NUMBER: 644.014.01.003

NAME / LOCATION: Meade Bypass, Richmond - 1DW APN 560 080 005

PROJECT MANAGER: KSF

SAMPLERS: CJB

APN 560 080 005

RECORDER: CJB

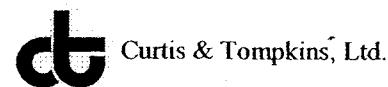
1682 NOVATO BOULEVARD, SUITE 100
NOVATO, CALIFORNIA 94947
(415) 899-1600 FAX (415) 899-1601

ANALYSIS REQUESTED ✓

ANALYSIS REQUESTED	
EPA 5035/8010	
EPA 5035/8021	
EPA 5035/8260B	
TPHg by 5035/8015M	
TPHd by 8015M	
TPHmo by 8015M	
EPA 8270C	MNA Parameters (see notes)
	X Ti-He 22 month 6010E
	X P ₂ BS M ₁ 8082A
	X VOCs by 8260B
	X VOCs by 8270C
	X Dist./log. 8081A/851
	X TPHmo by 8015M/Sq u

NOTES		CHAIN OF CUSTODY RECORD					
Turn Around Time: 72 HOURS		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
<ul style="list-style-type: none"> • Perform all analyses on both soil and water samples. • Hold soil sample for 1 week • Soil sample composited & homogenized in the field 		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
		RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)		DATE	TIME	
		DISPATCHED BY: (Signature)	DATE	TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
		METHOD OF SHIPMENT: CJB drop-off at C&T					

COOLER RECEIPT CHECKLIST



Login # 213714 Date Received 7/23/09 Number of coolers 1
 Client PRIS Project MEADIE BYPASS
 Date Opened 7/23/09 By (print) M. N. WILSON (sign) M. N. Wilson
 Date Logged in ✓ By (print) ✓ (sign) ✓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES NO
 Shipping info _____

2A. Were custody seals present? ... YES (circle) on cooler on samples NO
 How many _____ Name _____ Date _____

2B. Were custody seals intact upon arrival? _____ YES NO N/A

3. Were custody papers dry and intact when received? _____ YES NO N/A

4. Were custody papers filled out properly (ink, signed, etc)? _____ YES NO N/A

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO N/A

6. 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? _____ YES NO

If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? _____ YES NO N/A

10. Are samples in the appropriate containers for indicated tests? _____ YES NO N/A

11. Are sample labels present, in good condition and complete? _____ YES NO N/A

12. Do the sample labels agree with custody papers? _____ YES NO N/A

13. Was sufficient amount of sample sent for tests requested? _____ YES NO N/A

14. Are the samples appropriately preserved? _____ YES NO N/A

15. Are bubbles > 6mm absent in VOA samples? _____ YES NO N/A

16. Was the client contacted concerning this sample delivery? _____ YES NO N/A

If YES, Who was called? _____ By _____ Date: _____

COMMENTS

3 VODS w/ BUBBLES

SOIL SAMPLES SPLIT OFF FOR B151

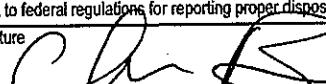
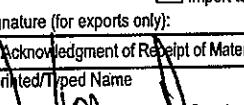
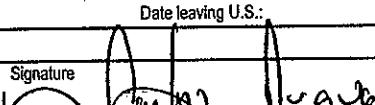
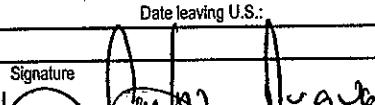
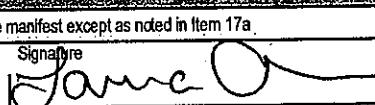
APPENDIX F

INVESTIGATION-DERIVED WASTE DISPOSAL DOCUMENTATION

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number CAD983888268	2. Page 1 of 1	3. Emergency Response Phone 707-366-0160	4. Waste Tracking Number 01691	
5. Generator's Name and Mailing Address University of California, Berkeley 1301 S. 46th St. Richmond, CA 94804		Generator's Site Address (if different than mailing address) Richmond Field Station - Meade Street Bypass Investigation				
Generator's Phone: 510.642.4546		U.S. EPA ID Number CAR000179382				
6. Transporter 1 Company Name ENV Environmental International		U.S. EPA ID Number				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address Altamont Landfill & Resource Recovery 10840 Altamont Pass Road Livermore, CA 94580		U.S. EPA ID Number CAD981982732				
Facility's Phone: 925.455.7306						
GENERATOR	9a. HM: 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) 1. Non Hazardous Waste Solids (Subsurface Investigation Soil Barrings)		10. Containers No. 1	Type DM	11. Total Quantity 50	12. Unit Wt./Vol. P
	2. Non Hazardous Waste Liquids (Subsurface Investigation Waste Water)		1	DM	5	G
	3.					
	4.					
13. Special Handling Instructions and Additional Information Send invoice to: ENV Americas Attn: Mark Wynn . Always wear proper PPE when handling this material. Obj 1. profile number: 108412CA Obj2. profile number: 108411CA . Project Number: PES 0918 Richmond 46th St Drums T & D						
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.						
Generator's/Offeree's Printed/Typed Name Mark Wynn Env Americas Inc		Signature		Month 08	Day 21	Year 09
INT'L TRANSPORTER	15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit:			
			Date leaving U.S.:			
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name John Doe		Signature		Month 09	Day 21	Year 09
Transporter 2 Printed/Typed Name Jane Doe		Signature		Month 09	Day 21	Year 09
17. Discrepancy						
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection		Manifest Reference Number:				
17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)		Month Day Year				
18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name John Doe		Signature		Month 09	Day 21	Year 09

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

GENERATOR	NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number N/A	2. Page 1 of 1	3. Emergency Response Phone 707-365-0150	4. Waste Tracking Number 01690
	5. Generator's Name and Mailing Address Richmond Community Redevelopment Agency 440 Civic Center Plaza Richmond, CA 94804-3748	Generator's Site Address (if different than mailing address)			
Generator's Phone: 510.307.8140	Attn: Jim Branch				
6. Transporter 1 Company Name ENV Environmental International				U.S. EPA ID Number CAR000179382	
7. Transporter 2 Company Name Environmental Logistics, Inc.				U.S. EPA ID Number CAR000172428	
8. Designated Facility Name and Site Address Crosby & Overton 1610 West 17th Street Long Beach, CA 90813				U.S. EPA ID Number CAD028400019	
Facility's Phone: 1.552.432.5445					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) 1. Non Hazardous Waste Solids (Investigation Derivated Soil)	10. Containers No. 1	Type DM	11. Total Quantity 50	12. Unit Wt./Vol. P
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information Send invoice to: ENV America Attn: Mark Warn . Always wear proper PPE when handling this material. 9b 1. profile number: 70487 - Project Number: PES 0917 Richmond Sycamore Ave Drums T & D D17824					
14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste. Generator's/Officer's Printed/Typed Name Chris Baldassari (PES Environmental) as agent for Richmond Redevel. Agency Signature  Month Day Year 08 21 09					
TRANSPORTER INT'L	15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/exit: _____ Date leaving U.S.: _____			
TRANSPORTER	Transporter signature (for exports only): 	Signature  Month Day Year 08 21 09			
DESIGNATED FACILITY	16. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Jim Branch Signature  Month Day Year 08 21 09				
	Transporter 2 Printed/Typed Name Laura M. Reble Signature  Month Day Year 08 21 09				
17. Discrepancy 17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
17b. Alternate Facility (or Generator) Facility's Phone:					
17c. Signature of Alternate Facility (or Generator)  Month Day Year					
18. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 17a.					
Printed/Typed Name Laura Christensen		Signature 		Month Day Year 108 28 09	

APPENDIX G

DTSC HAZARD-RISK CALCULATION OUTPUT SHEET

Inorganic acids	mg/kg	Inorganic chemicals (con't)	mg/kg
2,4-D	0	Copper and compounds	0
2,4,5-T	0	Fluoride	0
Pentachlorophenol	0	Lead and lead compounds	0
Lipophilic chemicals	mg/kg	Lead acetate	0
Aldrin	0	Mercury and compounds	0
Benz(a)pyrene	0	Molybdenum	0
Chlordane	0	Nickel and compounds	0
DDD	0	Nickel subsulfide	0
DDE	0	Perchlorate	TBD
DDT	0	Selenium	0
Dieldrin	0	Silver and compounds	0
1,4 Dioxane	0	Thallium and compounds	0
Dioxin (2,3,7,8-tcdd)	0	Vanadium and compounds	0
Endrin	0	Zinc	0
Heptachlor	0	Volatile chemicals	µg/L*
Lindane	0	Benzene	0
Kepone	0	Carbon tetrachloride	0
Methoxychlor	0	1,2-Dichloroethane	0
Mirex	0	cis 1,2-Dichloroethylene	0
PCBs	0.454	trans 1,2-Dichloroethylene	0
Toxaphene	0	Ethylbenzene	TBD
Inorganic chemicals	mg/kg	Mercury (elemental)	0
Antimony and compounds	0	Methyl tert butyl ether	0
Arsenic	0	Naphthalene	0
Beryllium and compounds	0	Tetrachloroethylene	0
Beryllium oxide	0	Tetraethyl lead	0
Beryllium sulfate	0	Toluene	0
Cadmium and compounds	0	1,1,1-Trichloroethane	0
Chromium III	0	Trichloroethylene	0
Chromium VI	0	Vinyl chloride	0
Cobalt	0	m-Xylene	0
		o-Xylene	0
		p-Xylene	0

Note: This is a soil gas concentration

Hazard-Risk Calculator

Instructions

In yellow area, enter site bulk soil (mg/kg) or soil gas (µg/L) values for chemicals in the table to the left.

In the blue area, first identify Land Use, then identify Construction Type.

In pink area below, read total Hazard Index and Risk Index.

Scenario

Land Use	Construction Type
<input type="checkbox"/> Residential	<input checked="" type="checkbox"/> New Construction (with engineered fill)
<input checked="" type="checkbox"/> Industrial/Commercial	<input type="checkbox"/> Existing Construction (without engineered fill)

Output Industrial/Commercial New Construction with Engineered Fill

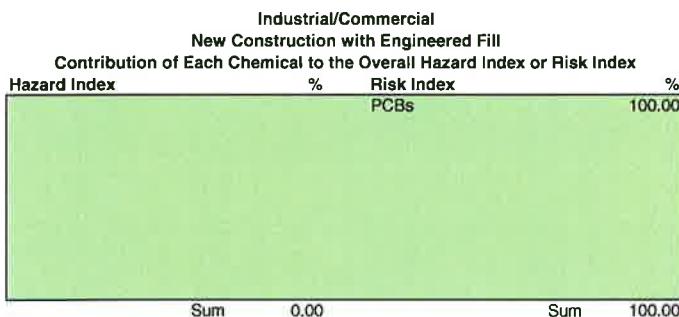
Hazard Index 0.00

Risk Index 1.51

To see the contribution of the top ten chemicals for each index press Ctrl+Shift+L

Finding

When the Hazard Index for non-carcinogenic chemicals and/or the Risk Index for carcinogenic chemicals is(are) greater than 1, there may be a need to estimate potential remediation costs for the site.



Hazard Index

Risk Index

To return to entry form press Ctrl+T