



ENVIRONMENTAL, INC.

October 13, 2014

Mr. Hugh Murphy  
City of Hayward Fire Department  
Hazardous Materials Division  
Certified Unified Program Agency  
777 B Street  
Hayward, California 94541

RE: UST Closure Report  
Housing Authority of the County of Alameda Property  
22941 Atherton Street, Hayward, California  
SCA Project No: B11167.04

Dear Mr. Murphy:

With this letter, SCA Environmental, Inc. (SCA) presents the Underground Storage Tank (UST) Closure Report for the four former USTs encountered at the subject property in Hayward, California. This report was prepared on behalf of the Housing Authority of the County of Alameda (HACA), the current property owner. The location of the USTs is shown on Figures 1 and 2. UST removal and closure-in-place activities were completed during August and September 2014.

## **BACKGROUND**

The Site is located at 22941 Atherton Street, between Jackson Street and Willis Avenue, in Hayward California. The property comprises the HACA administrative building which is undergoing extensive building renovation, including an addition on the north side of the existing building as well as grading for the surrounding parking lot and landscaping. We understand that no Phase I Environmental Site Assessment or other historical site assessment was prepared for the Site. Based on information provided by the City of Hayward Fire Department (HFD), we understand that the Site was formerly operated by Pacific Cement & Aggregates, Inc (division of Lone Star Cement Corp), including a Bitumus Oil Tank and Oil Pump house(s) that appear to be in the vicinity of the USTs discussed herein.

On July 8, 2014, HACA's general contractor, Sausal Corporation (Sausal), encountered a UST and soil with a strong diesel fuel odor during rough grading activities outside of the northwestern corner of the existing building (Figure 2). The UST was partially exposed and appeared to be relatively small (approximately 500 to 1,000 gallons). No free product (hydrocarbon fuel) was measured within the UST but moderate to strong diesel fuel odors were detected in soil near the UST. SCA subcontracted with Subtronic Corporation (Subtronic) to complete a geophysical survey of this portion of the Site. Subtronic confirmed the presence of a metallic anomaly presumed to be a UST measuring 10 feet by 8 feet, at a depth of 4.5 feet below ground surface (bgs). A 4-inch diameter fill/vent pipe and a 2-inch diameter galvanized steel pipe were also observed with the UST. Following completion of the geophysical survey, Sausal temporarily recovered the exposed portion of the UST with soil pending permit and removal activities.

## **UNDERGROUND STORAGE TANK REMOVAL AND CLOSURE ACTIVITIES**

Sausal subcontracted with Controlled Environmental Services (CES), a licensed hazardous waste contractor, to complete UST removal. In total, three (3) USTs were removed and one (1) was closed in-place. The Underground Storage Tank Removal/Closure Plan and Permit Applications were approved by

the HFD prior to the removal of the UST. We refer to HFD files for copies of the UST permits and applications.

### UST Preparation and Removal

On July 31, 2014, CES excavated soil around UST-1 using a backhoe. Excavated soil was placed on and covered with plastic sheeting along the western portion of the Site pending characterization and offsite disposal. During soil excavation, two 1,000-gallon (5' diameter x 7' length: UST-1 & UST-2) and one 1,500-gallon UST (5' diameter x 10' length: UST-3) were encountered. All USTs were constructed of single-walled steel with one fill port on the south end of each UST. Based on field observations, the USTs were situated approximately 4.5 feet below ground surface (bgs).

No fuel (free phase hydrocarbons) was observed inside the USTs. The contents of UST-1 consisted of a minor amount of water and soil; UST-2 was approximately half full of water; UST-3 was empty. To inert each UST, CES triple washed the interior of each tank, the contents of which were then removed using a vacuum truck pending disposal offsite under hazardous waste manifest by Asbury Environmental Services. Following the triple rinse, approximately 50 lbs. of dry ice was placed inside each UST.

UST-1 and UST-2 were removed on July 31, 2014. UST-3 was removed on August 1, 2014. Using a lower explosive limit (LEL)-Meter, field readings taken prior to UST removal indicated the following:

Tank ID	% LEL	% Oxygen
UST-1	0%	0.9%
UST-2	0%	1.4%
UST-3	0%	1.0%

Based on the LEL readings, the HFD authorized CES to remove both USTs. Each UST was removed using a backhoe then placed on plastic sheeting and/or were loaded directly onto a flatbed truck for hauling offsite. All USTs were visually inspected and were judged to be intact with only minor rust on the exterior of each UST. No holes were observed in UST-1 or UST-2. Two small holes (less than 1/2-inch in diameter) were observed in UST-3. All three USTs and associated 2-inch diameter galvanized piping were transported from the Site by Ecology Control Industries (ECI) to their yard in Richmond, California under hazardous waste manifest for disposal. Copies of the hazardous waste manifests for the USTs and the purged liquids are presented in Appendix A.

The resulting UST Pit was roughly 24' x 14' x 11 feet deep. No groundwater was encountered. Confirmation samples (two below each UST and several sidewall samples were collected under the direction of HFD on July 31 and August 1, 2014. Gray staining to soil indicative of an aged hydrocarbon release(s) was observed on the sidewalls and bottom of the southeastern portion of the excavation pit.

On August 14, 2014, SCA directed CES to over-excavate portions of the UST pit to complete secondary source removal near the former USTs. This work was completed in coordination with and approval from HFD. A portion of the eastern wall was extended approximately 4 feet, the southern portion of the bottom of the UST pit was excavated to approximately 15 to 19 feet bgs, and the southern wall was extended another 1.5 feet. The resulting excavated soil was added to the existing soil stockpile and covered with plastic sheeting. During over-excavation, a fourth UST (UST-4) measuring 9.5 feet in diameter and approximately 20 feet in length was encountered along the south wall. UST-4 extended approximately 1.5 feet beyond the northwestern portion of the building's structure grade beams. Accordingly, removal of UST-4 was judged to have the potential to adversely impact the structural integrity of overlying building. A letter from the geotechnical engineer is presented in Appendix B.

On August 21, the UST pit was backfilled and compacted per geotechnical requirements pending approval to conduct closure in-place of UST-4. Backfill material comprised brown silty clay derived from onsite that was moisture conditioned prior to compaction.

On September 25 and 26, 2014, CES triple rinsed and purged UST-4. Field readings showed and LEL of 0% and oxygen content of 20.9%. With HFD approval, UST-4 was backfilled with controlled Low Strength Material (CLSM) having an in-place density of approximately 99 pounds/cubic foot. Approximately 54 cubic yards of CLSM was poured into the UST, vibrated, and topped to fill all voids.

### **CONFIRMATION SOIL SAMPLING**

Immediately after removal of USTs-1 through -3, SCA obtained two (2) confirmation soil samples from below each UST as directed by HFD. SCA also obtained one confirmation sample from the west, north, and east sidewalls. The southern wall was not reasonably accessible. The soil samples were obtained from the excavator bucket using stainless steel tubes, sealed with Teflon sheets and plastic end caps, and stored in an ice-chilled chest pending delivery to the chemical testing laboratory. During subsequent over-excavation work on August 14, 2014, additional confirmation samples were collected from the UST pit sidewalls and bottom. Approximate soil sample locations are shown on Figures 2 and 3.

In total, thirteen (13) confirmation samples were submitted to McCampbell Analytical, a State-certified testing laboratory under chain-of-custody documentation and tested for some or all of the following analyses:

- Total Petroleum Hydrocarbons as gasoline (TPHg) using USEPA Test Method 8015B/8021B;
- Total Petroleum Hydrocarbons as diesel and motor oil (TPHd and TPHmo) using USEPA Test Method 8015B;
- Total Oil and Grease using USEPA Test Method 5520E/F;
- Volatile Organic Compounds, including Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX), Lead Scavengers, and Fuel Oxygenates using USEPA Test Method 8260B,
- Polychlorinated biphenyls (PCBs) using USEPA Test Method 8082;
- Semi-Volatile Organic Compounds (SVOCs), including Polynuclear Aromatic Hydrocarbons (PAHs) and Pentachlorophenol (PCP) using USEPA Test Method 8270; and
- Leaking Underground Fuel Tank (LUFT) 5 metals using USEPA Test Method 6020 series.

### **RESULTS OF CHEMICAL ANALYSES**

Results of analyses on initial confirmation soil samples collected from the Site are summarized in Table 1. Copies of all laboratory results are included in Appendix C. For the purposes of this report, results were compared to the San Francisco Bay Regional Water Quality Control Board's (RWQCB) Environmental Screening Levels (ESLs) for a commercial land use, as well as ESLs for a construction worker exposure scenario<sup>1</sup>.

#### **Initial UST Pit Sidewall and Bottom Samples**

Results of analyses confirm that a diesel fuel and gasoline release to soil has occurred at the UST area. Based on our field observations, the release appears related to over-filling and perhaps failure of other

<sup>1</sup> Tables A and K-3 of *SFRWQCB User's Guide: Derivation and Application of Environmental Screening Levels. Interim Final December 2013.*

UST operations. The following summarizes results of analyses on the initial UST Pit sidewall and bottom samples.

- Analyses detected no PCBs or pentachlorophenol in the six samples analyzed.
- TPHg concentrations ranging up to 3,100 milligrams per kilogram (mg/kg) were detected in bottom sample UST3-SB1 and up to 950 mg/kg in sidewall sample SW3E, exceeding commercial land use ESL criteria of 500 mg/kg in three samples of the nine samples analyzed.
- TPHd concentrations ranging up 18,000 mg/kg were detected in UST3-SB1, exceeded respective commercial land use ESL criteria of 110 mg/kg in seven of the nine samples analyzed.
- TPHmo concentrations ranging up 8,600 mg/kg were detected in UST3-SB1, exceeded respective commercial land use ESL criteria of 500 mg/kg in six of the nine samples analyzed.
- TOG concentrations ranging from 120 mg/kg to 1,300 mg/kg were detected in five out of the six samples analyzed. No ESLs have been established for TOG.
- Various VOCs were detected including ethylbenzene, total xylenes, n-Butylbenzene, isopropylbenzene, 4-Isopropyl toluene, naphthalene, n-Propylbenzene, and 1,2,4-Trimethylbenzene. With the exception of naphthalene, all detected VOCs were below respective commercial and construction worker ESLs.
- Various SVOCs were detected including fluorine, 2-Methylnaphthalene, naphthalene, and phenanthrene at concentrations below respective construction worker ESLs. With the exception of naphthalene and 2-Methylnaphthalene, detected VOCs were well below commercial land use ESLs.
- Detected naphthalene concentrations ranged from 1.4 mg/kg to 14 mg/kg (VOC analysis by Method 8260B) or 7.1 mg/kg to 21 mg/kg (SVOC analysis by Method 8270C), exceeding the commercial land use ESL of 1.2 mg/kg, but were well below the construction worker exposure ESL of 370 mg/kg.
- Detected LUFT metal concentrations were similar to typical background values and were well below respective commercial land use ESLs and ESLs for a construction worker exposure scenario.

### **Over-Excavation Samples**

Results of analyses on samples collected after over-excavation demonstrate elevated residual TPHg, TPHd, and TPHmo concentrations are present in soil at the former UST area. In general, TPH concentrations detected in over-excavation samples were generally lower for the eastern sidewall (SWOE-E1) and UST-3 bottom samples but were higher for the UST-1 and UST-2 bottom samples. Based on visual staining observed etc, residual TPH impacts are located primarily around UST-4 and the bottom of the UST pit. Analyses on bottom samples collected after over-excavation detected:

- TPHg concentrations ranging up to 2,100 mg/kg (UST1-SB2-OE),
- TPHd concentrations ranging up 5,700 mg/kg (UST3-SB2-OE), and
- TPHmo concentrations ranging up 3,100 mg/kg (UST3-SB2-OE).

### **SOIL STOCKPILE CHARACTERIZATION**

SCA obtained four discrete samples of the soil stockpiled from the UST excavation. The four discrete samples were obtained using stainless steel tubes, sealed with Teflon sheets and plastic end caps, and stored in an ice-chilled chest pending delivery to the chemical testing laboratory.

The four soil samples were submitted to McCampbell Analytical under chain-of-custody documentation. Prior to analysis, SCA instructed the laboratory to composite the four samples into one 4:1 composite sample. The 4:1 composite sample was analyzed for the following:

- TPHg, TPHd, and TPHmo using USEPA Test Method 8015B,
- VOCs using USEPA Test Method 8260B,
- LUFT 5 Metals using USEPA Test Method 6020, and
- Reactivity Corrosivity, Ignitability (RCI) using USEPA Test Method SW9045D.

Analyses detected TPHg, TPHd, and TPHmo at concentrations of 350 mg/kg, 2,400 mg/kg, and 1,200 mg/kg, respectively. Of the BTEX components, ethylbenzene was detected at a concentration of 0.19 mg/kg. Various other VOCs including n-Butylbenzene, sec-Butylbenzene, isopropylbenzene, 4-Isopropyl toluene, naphthalene, n-propylbenzene, and 1,2,4-Trimethylbenzene were also detected. No Total Threshold Limit Concentration (TTLIC), one of the criteria used to classify soil as a hazardous waste, have been established for VOCs.

For RCI testing, both reactive cyanide and reactive sulfide tested negative. Additionally, the ignitability of the composite soil sample also tested negative. The pH of the composite sample was reported as 7.76; therefore the soil does not appear to be corrosive.

All LUFT 5 metals were detected in the one composite sample analyzed at concentrations below respective Total Threshold Limit Concentration (TTLIC) criteria. Detected chromium (53 mg/kg) exceeded ten times the Soluble Threshold Limit Concentration (STLC) criteria in the composite sample analyzed. Therefore this sample was analyzed for soluble chromium using Waste Extraction Test (WET) and Toxicity Characteristic Leaching Procedure (TCLP) methods. Analyses detected 0.20 milligrams per liter (mg/L) of soluble chromium using the WET method, well below the STLC of 5.0 mg/L. No soluble chromium was detected using the TCLP method. Results of analyses are summarized on Table 2.

Based on the analytical results, approximately 132.7 tons (approximately 88 cubic yards) of soil was disposed at Waste Management's Altamont Landfill in Livermore, California as a Class II non-hazardous waste. Copies of the soil disposal documents are included in Appendix A.

## CONCLUSIONS AND RECOMMENDATIONS

Based on SCA's field observations and results of chemical analyses, SCA presents the following conclusions and recommendations:

- Four single-walled steel USTs were encountered near the northwestern portion of the existing HACA building. Based on field observations, SCA presumes that these USTs were used for diesel fuel and gasoline storage. Three USTs were removed and disposed as hazardous waste. One 10,500 gallon UST was closed in-place to avoid damaging the integrity of the existing building. All removal and closure activities were completed in accordance with HFD permit requirements.
- Soil excavated during UST removal and over-excavation work (132.7 tons, approximately 88 cubic yards) was disposed at the Altamont Landfill in Livermore, California.
- Primary and reasonably accessible secondary sources of TPH contamination in soil have been removed from the Site. However, impacted soil is present near the former USTs. Analytical results indicate that residual TPHg, TPHd, and TPHmo concentrations exceed ESL criteria. An Unauthorized Release for the UST operations is presented in Appendix D.

- SCA recommends completing a subsurface investigation to evaluate the extent of TPH impacts to soil and groundwater at the Site. This investigation should be completed in coordination with Alameda County Environmental Health. Results of that investigation should be used to evaluate whether the Site is suitable for regulatory case closure using Low Threat Closure protocols.

## LIMITATIONS

This document is intended to be used only in its entirety. This report has been prepared for the exclusive use of the City of Hayward Fire Department and Housing Authority of the County of Alameda. No reliance on this report shall be made by anyone other than those for whom it was prepared unless authorized in writing by a Principal of SCA.

SCA's conclusions, recommendations and opinions presented in this report are based solely on the findings of the investigation discussed herein. This report has been prepared in accordance with generally accepted methodologies and standards of practice by environmental professionals performing similar services. No warranty, expressed or implied, is made regarding the findings, conclusions, and recommendations included in the report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities including additional sampling, excavation, construction, etc.

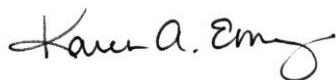
The findings of this report are valid as of the date of the report. SCA's opinions and recommendations regarding environmental conditions as presented herein are based on limited subsurface assessment and chemical analysis. The samples collected and used for testing, and the observations made, are believed to be representative of the areas evaluated; however, conditions can vary significantly between sampling locations. Variations in the subsurface conditions may exist beyond the areas explored in this evaluation. Additionally, Site conditions may change with time, natural processes, or human intervention, which can invalidate the findings and conclusions presented in this report. As such, this report should be considered a reflection of the current site conditions as based on the investigation and remediation completed.

## CLOSING

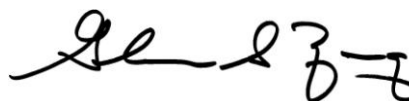
We trust this provides the information required at this time. Please contact the undersigned if you have any questions.

Sincerely,

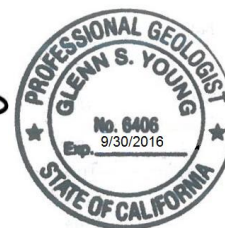
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KAE/GSY:ke

Attachments:

Table 1 - Summary of Analytical Results: Confirmation Samples

Table 2 - Summary of Analytical Results: Stockpiled Soil

Figure 1 - Vicinity Map

Figure 2 - Site Map: Initial Excavation

Figure 3 - Site Map: Additional Excavation

Appendix A - Waste Profile and Disposal Information

Appendix B - Geotechnical Consultation Letter

Appendix C - Analytical Reports

Appendix D - Unauthorized Release Form

Copies submitted via email: (1 PDF) Addressee  
(1 PDF) Mr. Jim Herrenbruck, URS  
(1 PDF), George Smith, HACA  
(1 PDF), Mark Detterman, ACEH

## TABLES



Table 1  
Summary of Analytical Results - Confirmation Samples  
HACA Hayward Office - UST Removal  
22941 Atherton Street  
Hayward, California

Analyte	Units	Sample ID													Environmental Screening Levels		California Regulatory Limits
		SW1W	SW3N	SW3E	SWOE-E1	UST1-NB1	UST1-SB1	UST1-SB2-OE	UST2-NB1	UST2-SB1	UST2-SB2-OE	UST3-NB1	UST3-SB1	UST3-SB2-OE	Commercial	Construction Worker	TTLc
Sample Location	Sample Type	UST-1 Excavation Western Sidewall Discrete	UST-3 Excavation Northern Sidewall Discrete	UST-3 Excavation Eastern Sidewall Discrete	UST-3 East SW OVER-EX Discrete	UST-1 Excavation Bottom - North Discrete	UST-1 Excavation Bottom - South Discrete	UST-1 OVER-EX Discrete	UST-2 Excavation Bottom - North Discrete	UST-2 Excavation Bottom - South Discrete	UST-2 OVER-EX Discrete	UST-3 Excavation Bottom - North Discrete	UST-3 Excavation Bottom - South Discrete	UST-3 OVER-EX Discrete			
Sample Depth (feet bgs)	Date Sampled	9.0	8.5	9.5	15.0	9.0	9.0	15.0	9.0	9.0	15.0	9.0	9.0	15.0			
<b>Hydrocarbons</b>																	
TPHg	mg/kg	<b>68</b>	<1.0	<b>950</b>	<b>26</b>	<1.0	<b>83</b>	<b>2,100</b>	<b>2.1</b>	<b>550</b>	<b>2,000</b>	<b>200</b>	<b>3,100</b>	<b>800</b>	500	2,700	NE
TPHd	mg/kg	<b>700</b>	<1.0	<b>11,000</b>	<b>250</b>	<b>15</b>	<b>1,300</b>	<b>5,500</b>	<b>140</b>	<b>3,400</b>	<b>5,700</b>	<b>900</b>	<b>18,000</b>	<b>5,700</b>	110	900	NE
TPHmo	mg/kg	<b>500</b>	<5.0	<b>5,000</b>	<b>210</b>	<b>20</b>	<b>2,200</b>	<b>2,000</b>	<b>420</b>	<b>1,500</b>	<b>2,300</b>	<b>670</b>	<b>8,600</b>	<b>3,100</b>	500	28,000	NE
TOG	mg/kg	--	--	--	--	<50	<b>1,300</b>	--	<b>300</b>	<b>480</b>	--	<b>120</b>	<b>370</b>	--	NE	NE	NE
<b>VOCs</b>																	
Benzene	mg/kg	--	--	--	<0.025	<0.005	<0.020	<1.0	<0.005	<1.0	<1.0	<0.10	<1.0	<0.2	0.044	71	NE
Toluene	mg/kg	--	--	--	<0.025	<0.005	<0.020	<1.0	<0.005	<1.0	<1.0	<0.10	<1.0	<0.2	2.9	4,300	NE
Ethylbenzene	mg/kg	--	--	--	<0.025	<0.005	<0.020	<1.0	<0.005	<1.0	<b>1.9</b>	<0.10	<b>2.9</b>	<0.2	3.3	5,700	NE
Total Xylenes	mg/kg	--	--	--	<0.025	<0.005	<0.020	<1.0	<0.005	<1.0	<1.0	<0.10	<b>2.1</b>	<b>0.68</b>	2.3	2,500	NE
n-Butylbenzene	mg/kg	--	--	--	<0.025	<0.005	<b>0.023</b>	<1.0	<0.005	<b>1.8</b>	<b>3.8</b>	<b>0.18</b>	<b>1.5</b>	<b>0.6</b>	NE	NE	NE
Isopropylbenzene	mg/kg	--	--	--	<0.025	<0.005	<0.020	<1.0	<0.005	<1.0	<b>1.3</b>	<0.10	<b>1.4</b>	<b>0.2</b>	NE	NE	NE
4-Isopropyl toluene	mg/kg	--	--	--	<0.025	<0.005	<0.020	<1.0	<0.005	<1.0	<1.0	<b>0.18</b>	<1.0	<b>0.43</b>	NE	NE	NE
MTBE	mg/kg	--	--	--	<0.025	<0.005	<0.020	<1.0	<0.005	<1.0	<1.0	<0.10	<1.0	<0.2	0.023	3,800	NE
Naphthalene	mg/kg	--	--	--	<0.025	<0.005	<0.020	<1.0	<0.005	<b>12</b>	<b>17</b>	<b>1.4</b>	<b>14</b>	<b>2.4</b>	1.2	370	NE
n-Propylbenzene	mg/kg	--	--	--	<b>0.031</b>	<0.005	<0.020	<1.0	<0.005	<1.0	<b>2.7</b>	<0.10	<b>2.5</b>	<0.2	NE	NE	NE
1,2,4-Trimethylbenzen	mg/kg	--	--	--	<b>0.29</b>	<0.005	<0.020	<b>13</b>	<0.005	<b>6.6</b>	<b>23</b>	<b>0.83</b>	<b>20</b>	<b>2.6</b>	NE	NE	NE
1,3,5-Trimethylbenzen	mg/kg	--	--	--	<0.025	<0.005	<0.020	<b>1.8</b>	<0.005	<1.0	<1.0	<0.10	<1.0	<0.2	NE	NE	NE
Remaining VOCs	mg/kg	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	varies	varies	NE
<b>SVOCs</b>																	
Fluorene	mg/kg	--	--	--	--	<0.25	<40	--	<10	<2.0	--	<2.0	<b>10</b>	--	500	5,700	NE
2-Methylnaphthalene	mg/kg	--	--	--	--	<0.25	<40	--	<10	<b>9.1</b>	--	<2.0	<b>56</b>	--	0.25	570	NE
Naphthalene	mg/kg	--	--	--	--	<0.25	<40	--	<10	<b>7.1</b>	--	<2.0	<b>21</b>	--	1.2	370	NE
Pentachlorophenol	mg/kg	--	--	--	--	<1.3	<210	--	<52	<10	--	<0.05	<1.0	--	5.0	56	NE
Phenanthrene	mg/kg	--	--	--	--	<0.25	<40	--	<10	<2.0	--	<2.0	<b>14</b>	--	500	NE	NE
Remaining SVOCs	mg/kg	--	--	--	--	ND	ND	--	ND	ND	--	ND	ND	--	varies	varies	NE
<b>Polychlorinated Biphenyls</b>																	
PCBs	mg/kg	--	--	--	--	ND	ND	--	ND	ND	--	ND	ND	--	0.22	2.7	NE
<b>LUFT 5 Metals</b>																	
Cadmium	mg/kg	--	--	--	--	<0.25	<0.25	--	<0.25	<0.25	--	<0.25	<0.25	--	12	110	100
Chromium #	mg/kg	--	--	--	--	<b>51</b>	<b>46</b>	--	<b>46</b>	<b>42</b>	--	<b>48</b>	<b>44</b>	--	750+	460,000+	2,500#
Lead	mg/kg	--	--	--	--	<b>9.5</b>	<b>9.6</b>	--	<b>10</b>	<b>10</b>	--	<b>8.1</b>	<b>11</b>	--	320	320	1,000
Nickel	mg/kg	--	--	--	--	<b>50</b>	<b>46</b>	--	<b>50</b>	<b>42</b>	--	<b>47</b>	<b>45</b>	--	150	6,100	2,000
Zinc	mg/kg	--	--	--	--	<b>62</b>	<b>61</b>	--	<b>67</b>	<b>57</b>	--	<b>57</b>	<b>69</b>	--	600	93,000	5,000

**Notes**  
TPHg = Total Petroleum Hydrocarbons as gasoline  
TPHd = Total Petroleum Hydrocarbons as diesel  
TPHmo = Total Petroleum Hydrocarbons as motor oil  
TOG = Total Oil and Grease  
Detected concentrations shown in **Bold**  
mg/kg = Milligrams per kilogram

< = Not detected at or above laboratory reporting limit  
-- = Not analyzed  
ND = Not Detected; reporting limit varies by analyte  
NE = Not Established  
+ = Chromium III  
# = Total Chromium

TTLc = Total Threshold Limit Concentration  
ESLs = Environmental Screening Levels, San Francisco Bay Regional Water Quality Control Board's User's Guide: Derivation and Application of Environmental Screening Levels, Interim Final December 2013  
Table A (Commercial ESLs) and Table K-3 (Construction Worker ESLs)

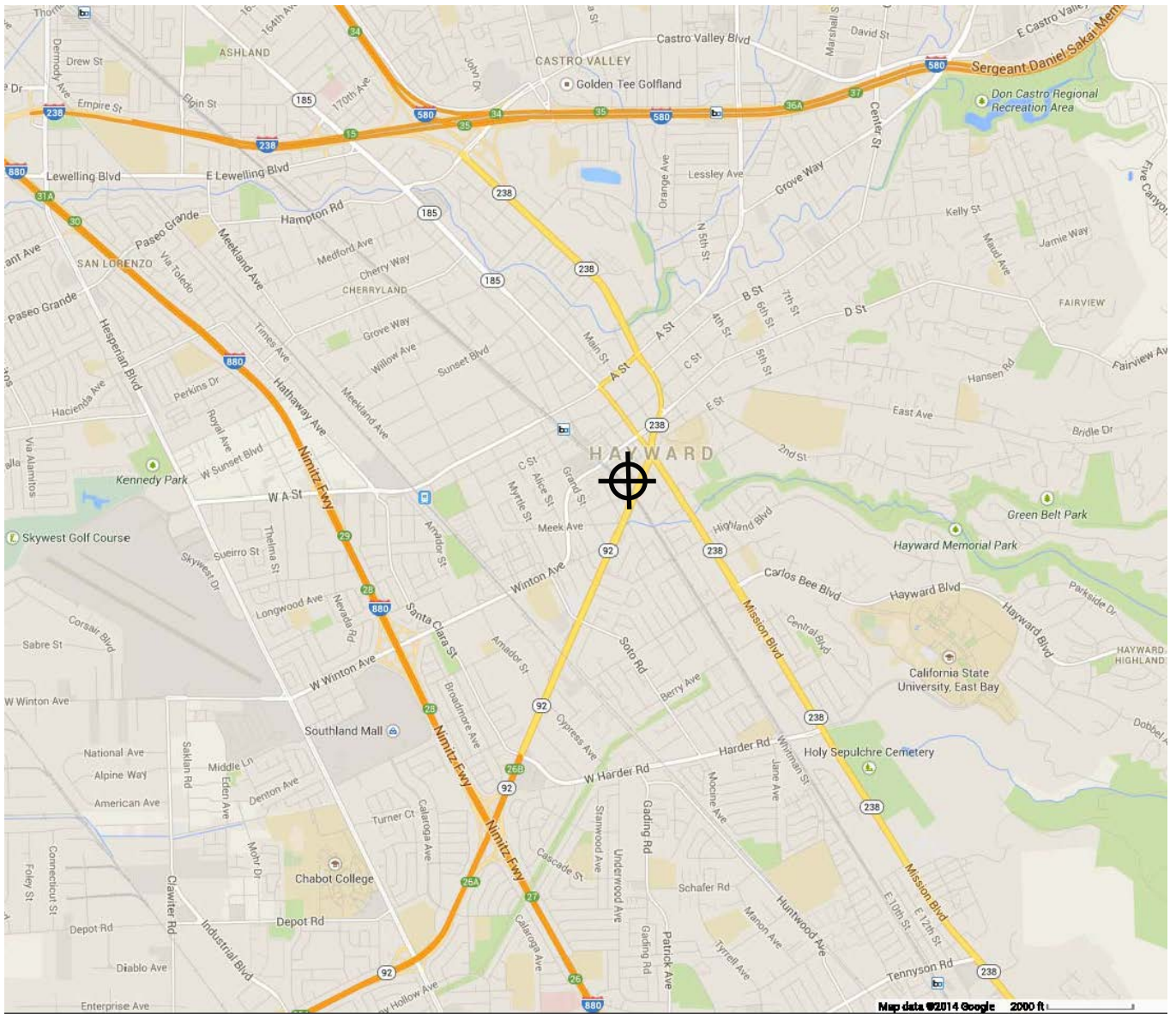
Table 2  
 Summary of Analytical Results - Stockpiled Soil  
 HACA Hayward Office - UST Removal  
 22941 Atherton Street  
 Hayward, California

		Sample ID	California Regulatory Limits
<b>Analyte</b>	<b>Units</b>	SP-1,2,3,4	TTLc
Sample Location		Stockpile	
Sample Type		Composite	
Date Sampled		08.01.2014	
<b>Hydrocarbons</b>			
TPHg	mg/kg	<b>350</b>	NE
TPHd	mg/kg	<b>2,400</b>	NE
TPHmo	mg/kg	<b>1,200</b>	NE
<b>Volatile Organic Compounds</b>			
Benzene	mg/kg	<0.10	NE
Toluene	mg/kg	<0.10	NE
Ethylbenzene	mg/kg	<b>0.19</b>	NE
Total Xylenes	mg/kg	<0.10	NE
n-Butylbenzene	mg/kg	<b>0.58</b>	NE
sec-Butylbenzene	mg/kg	<b>0.24</b>	NE
Isopropylbenzene	mg/kg	<b>0.18</b>	NE
4-Isopropyl toluene	mg/kg	<0.10	NE
MTBE	mg/kg	<0.10	NE
Naphthalene	mg/kg	<b>3.0</b>	NE
n-Propylbenzene	mg/kg	<b>0.42</b>	NE
1,2,4-Trimethylbenzene	mg/kg	<b>2.5</b>	NE
Remaining VOCs	mg/kg	ND	NE
<b>LUFT 5 Metals</b>			
Cadmium	mg/kg	<b>0.27</b>	100
Chromium #	mg/kg	<b>53</b>	2,500#
Soluble Chromium (STLC)	mg/l	<b>0.20</b>	5.0
Soluble Chromium (TCLP)	mg/l	<0.05	5.0
Lead	mg/kg	<b>12</b>	1,000
Nickel	mg/kg	<b>72</b>	2,000
Zinc	mg/kg	<b>98</b>	5,000
<b>General Chemistry</b>			
pH	SU	<b>7.76</b>	≤2.0 or ≥12.5
Reactive Cyanide	pos/neg	<b>Negative</b>	NE
Reactive Sulfide	pos/neg	<b>Negative</b>	NE
Ignitability	pos/neg	<b>Negative</b>	NE

**Notes**

TPHg = Total Petroleum Hydrocarbons as gasoline  
 TPHd = Total Petroleum Hydrocarbons as diesel  
 TPHmo = Total Petroleum Hydrocarbons as motor oil  
 TOG = Total Oil and Grease  
 Detected concentrations shown in **Bold**  
 mg/kg = Milligrams per kilogram  
 < = Not detected at or above laboratory reporting limit  
 ND = Not Detected; reporting limit varies by analyte  
 NE = Not Established  
 # = Total Chromium  
 SU = Standard Units  
 pos/neg = Positive or Negative Result  
 TTLc = Total Threshold Limit Concentration

## FIGURES



Source: Google Maps			
<p>LEGEND:</p> <p> Target Property</p> <p> N</p>		<p><b>Vicinity Map</b>                  HACA – UST Closure                  22941 Atherton Street                  Hayward, California                  SCA Project No.: B11167.04</p>	<p>Figure                  1</p>



ENVIRONMENTAL, INC.

LEGEND:

- Approximate UST Excavation Bottom Sample Location
- Approximate Sidewall Sample Location
- Approximate Location of Former UST
- Approximate Location of Remaining UST (Closed In-Place)
- Approximate Limits of Excavation



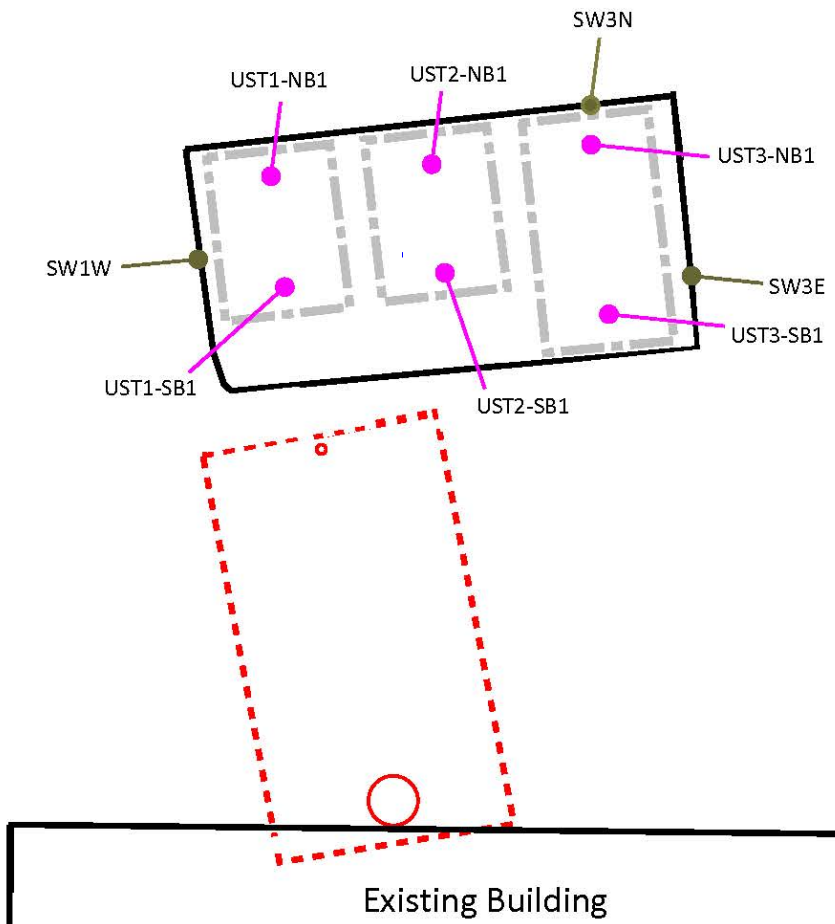
1" = 8ft (Approximate)

Source: Engineering Sketch

**SITE MAP – INITIAL EXCAVATION**  
HACA – UST Closure  
Hayward, California  
SCA Project No.: B11167.04

Figure

2



Soil Stockpile Area

Existing Building



ENVIRONMENTAL, INC.

LEGEND:

● Approximate UST Over-Excavation Bottom Sample Location

● Approximate Sidewall Sample Location (Over-Excavation)

□ Approximate Location of Former UST

□ Approximate Location of Remaining UST (Closed In-Place)

□ Approximate Limits of Excavation



North



1" = 8ft (Approximate)

Source: Engineering Sketch

**SITE MAP – ADDITIONAL EXCAVATION**

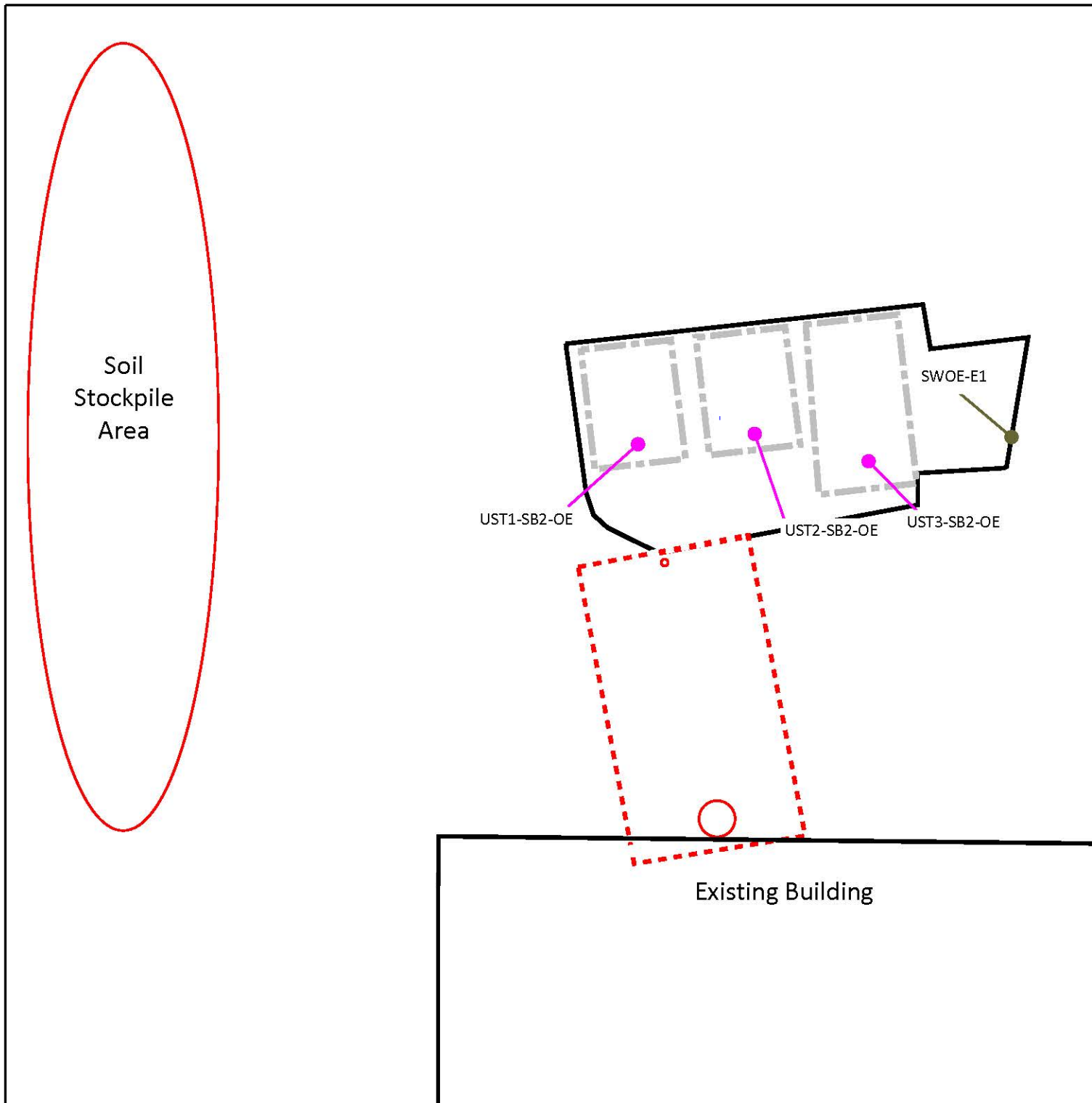
HACA – UST Closure

Hayward, California

SCA Project No.: B11167.04

Figure

3



APPENDIX A  
WASTE PROFILE AND DISPOSAL INFORMATION

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>CAR000242651</b>	2. Page 1 of <b>/</b>	3. Emergency Response Phone <b>800-424-9300</b>	4. Manifest Tracking Number <b>007944836 JJK</b>		
5. Generator's Name and Mailing Address <b>HOUSING AUTHORITY OF THE CNTY OF ALAMEDA 22941 ATHERTON STREET HAYWARD, CA 94541</b>			Generator's Site Address (if different than mailing address)				
Generator's Phone: <b>510-727-8510</b>							
6. Transporter 1 Company Name <b>ECOLOGY CONTROL INDUSTRIES</b>				U.S. EPA ID Number <b>CAD997030173</b>			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>ECOLOGY CONTROL INDUSTRIES 255 PARR BOULEVARD RICHMOND, CA 94801</b>				U.S. EPA ID Number <b>CAD009486382</b>			
Facility's Phone: <b>510-235-1393</b>							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes	
		No.	Type				
1.	<b>NON-RCRA HAZARDOUS WASTE SOLID (EMPTY STORAGE TANK)</b>	<b>001</b>	<b>TP</b>	<b>500</b>	<b>P</b>	<b>512</b>	
2.				<b>0</b>			
3.				<b>0</b>			
4.				<b>0</b>			
14. Special Handling Instructions and Additional Information <b>ECI JOB # 52T4582 TANK # 34577</b>  <b>WEAR PROPER PPE WHEN HANDLING // WEIGHTS AND VOLUMES ARE APPROXIMATE</b>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Officer's Printed/Typed Name <i>[Signature]</i>				Signature <i>[Signature]</i>		Month Day Year <b>7 31 14</b>	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Part of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name <b>BILL MARASKE</b>				Signature <i>[Signature]</i>		Month Day Year <b>7 31 14</b>	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. 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:							
18b. Alternate Facility (or Generator)						U.S. EPA ID Number	
Facility's Phone:							
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. <b>H129</b>		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in form 18a							
Printed/Typed Name <b>STON SPENCE</b>				Signature <i>[Signature]</i>		Month Day Year <b>7 31 14</b>	



UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CA92000242661

2. Page 1 of 1

3. Emergency Response Phone: 800-424-8300

4. Manifest Tracking Number: 007944837 JJK

5. Generator's Name and Mailing Address: HOUSING AUTHORITY OF THE CNTY OF ALAMEDA, 22941 ATHERTON STREET, HAYWARD, CA 94541

Generator's Phone: 510-727-8510

6. Transporter 1 Company Name: ECOLOGY CONTROL INDUSTRIES

U.S. EPA ID Number: CAD982030173

7. Transporter 2 Company Name: \_\_\_\_\_

U.S. EPA ID Number: \_\_\_\_\_

8. Designated Facility Name and Site Address: ECOLOGY CONTROL INDUSTRIES, 255 PARR BOULEVARD, RICHMOND, CA 94801

Facility's Phone: 510-235-1393

U.S. EPA ID Number: CAD009486392

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
1.	NON-RCRA HAZARDOUS WASTE SOLID (EMPTY STORAGE TANK)	001	TP	500	P	512	
2.				0			
3.				0			
4.				0			

14. Special Handling Instructions and Additional Information: ECI JOB # 52T4582 TANK # 34578

WEAR PROPER PPE WHEN HANDLING // WEIGHTS AND VOLUMES ARE APPROXIMATE

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offor's Printed/Typed Name: ~~LAURENCE PER ALUMINA CHEMICAL~~

Signature: [Signature]

Month Day Year: 7 31 14

16. International Shipments:  Import to U.S.  Export from U.S.

Port of entry/exit: \_\_\_\_\_

Date leaving U.S.: \_\_\_\_\_

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: BILL MAASKE

Signature: [Signature]

Month Day Year: 7 31 14

Transporter 2 Printed/Typed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Month Day Year: \_\_\_\_\_

18. Discrepancy

18a. Discrepancy Indication Space:  Quantity  Type  Residue  Partial Rejection  Full Rejection

Manifest Reference Number: \_\_\_\_\_

18b. Alternate Facility (or Generator)

U.S. EPA ID Number: \_\_\_\_\_

Facility's Phone: \_\_\_\_\_

18c. Signature of Alternate Facility (or Generator)

Month Day Year: \_\_\_\_\_

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H129

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a

Printed/Typed Name: SHON SPENCE

Signature: [Signature]

Month Day Year: 7 31 14

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>CAR000242651</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-424-9300</b>	4. Manifest Tracking Number <b>007944838 JJK</b>	
5. Generator's Name and Mailing Address <b>HOUSING AUTHORITY OF THE CNTY OF ALAMEDA 22941 AHERTON STREET HAYWARD, CA 94541</b>				Generator's Site Address (if different than mailing address)		
Generator's Phone: <b>510-727-8510</b>						
6. Transporter 1 Company Name <b>ECOLOGY CONTROL INDUSTRIES</b>				U.S. EPA ID Number <b>CAD982030173</b>		
7. Transporter 2 Company Name				U.S. EPA ID Number		
8. Designated Facility Name and Site Address <b>ECOLOGY CONTROL INDUSTRIES 255 PARR BOULEVARD RICHMOND, CA 94801</b>				U.S. EPA ID Number <b>CAD008468392</b>		
Facility's Phone: <b>510-235-1383</b>						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
1.	<b>NON-RCRA HAZARDOUS WASTE SOLID (EMPTY STORAGE TANK) + ASSOCIATED GALV PIPING</b>	<b>001</b>	<b>TP</b>	<b>353 500 1500</b>	<b>P</b>	<b>512</b>
2.				<b>0</b>		
3.				<b>0</b>		
4.				<b>0</b>		
14. Special Handling Instructions and Additional Information <b>ECI JOB # 52T4582 TANK # 34579</b>  <b>WEAR PROPER PPE WHEN HANDLING // WEIGHTS AND VOLUMES ARE APPROXIMATE</b>						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offor's Printed/Typed Name <b>GEORGE SMITH JR</b>				Signature <i>[Signature]</i>		Month Day Year <b>8   1   14</b>
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>BILL MAASKE</b>				Signature <i>[Signature]</i>		Month Day Year <b>8   1   14</b>
Transporter 2 Printed/Typed Name				Signature		Month Day Year
18. Discrepancy						
18a. 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: _____						
18b. Alternate Facility (or Generator) U.S. EPA ID Number						
Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)						Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. <b>H129</b>		2.		3.		4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a						
Printed/Typed Name <b>SPON SPENCE</b>				Signature <i>[Signature]</i>		Month Day Year <b>8   1   14</b>

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>CAR000242651</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>(800) 424-9300</b>	4. Manifest Tracking Number <b>013082543 JJK</b>		
5. Generator's Name and Mailing Address <b>HOUSING AUTHORITY OF THE COUNTY OF ALAMEDA 1499 SALMON WAY HAYWARD CA 94844</b>			Generator's Site Address (if different than mailing address) <b>22941 ATHERTON ST HAYWARD CA 94851</b>				
Generator's Phone: <b>925 883-0564</b>							
6. Transporter 1 Company Name <b>ASDURY ENVIRONMENTAL SERVICES</b>			U.S. EPA ID Number <b>CAD028277056</b>				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address <b>DEWENNO / KERDOON 2000 NORTH ALAMEDA STREET DOWNTOWN CA 90222</b>			U.S. EPA ID Number <b>CAT080019382</b>				
Facility's Phone: <b>(310)537-7100</b>							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit, Wt./Vol.	13. Waste Codes
		1. <b>NON-PCRA HAZARDOUS WASTE, LIQUID (OILY WATER)</b>	No. <b>001</b>	Type <b>TT</b>	<b>100</b>	<b>G</b>	<b>223</b>
		2.					
		3.					
		4.					
14. Special Handling Instructions and Additional Information <b>NAERG# 981 : 171 * PROFILE # 981 : ACP * EMERGENCY CONTACT: CHEMTREC 1-800-424-9300 *** AUTOMOTIVE CLARIFIER PROGRAM *** * ADDITIONAL EPA CODES : 981 : NONE * APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT TRAILER # 17K</b>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offoror's Printed/Typed Name <b>Tom W. 10/17/14</b>			Signature <i>Tom W.</i>			Month Day Year <b>8   1   14</b>	
TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
	17. Transporter Acknowledgment of Receipt of Materials						
TRANSPORTER	Transporter 1 Printed/Typed Name <b>WILLIAM CRADOCK</b>			Signature <i>William Cradock</i>		Month Day Year <b>8   1   14</b>	
	Transporter 2 Printed/Typed Name			Signature		Month Day Year	
DESIGNATED FACILITY	18. Discrepancy						
	18a. 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						
	18b. Alternate Facility (or Generator)			Manifest Reference Number: _____ U.S. EPA ID Number _____			
	Facility's Phone: _____						18c. Signature of Alternate Facility (or Generator)
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. <b>H039</b>		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name <b>Tom W.</b>			Signature <i>Tom W.</i>			Month Day Year <b>8   1   14</b>	

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

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<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>	1. Generator ID Number <b>CA R 000242661</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>(800) 424-9300</b>	4. Manifest Tracking Number <b>013077283 JJK</b>				
5. Generator's Name and Mailing Address <b>HOUSING AUTHORITY OF THE COUNTY OF ALAMEDA 1489 SALMON WAY HAYWARD CA 94544</b>		Generator's Site Address (if different than mailing address) <b>22941 ATHERTON ST HAYWARD CA 94541</b>						
Generator's Phone: <b>925 883-0564</b>								
6. Transporter 1 Company Name <b>ASBURY ENVIRONMENTAL SERVICES</b>		U.S. EPA ID Number <b>CA D028277086</b>						
7. Transporter 2 Company Name		U.S. EPA ID Number						
8. Designated Facility Name and Site Address <b>DEWENNO / KENDSON 3000 NORTH ALAMEDA STREET COMPTON CA 90222</b>		U.S. EPA ID Number <b>CA T090013352</b>						
Facility's Phone: <b>(310) 537-7100</b>								
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		1. <b>NON-PCRA HAZARDOUS WASTE, LIQUID (OILY WATER)</b>	No.: <b>001</b>	Type: <b>TT</b>	<b>650</b>	<b>6</b>	<b>223</b>	
		2.						
		3.						
		4.						
14. Special Handling Instructions and Additional Information <b>TRAILER # 175A5 HAZARDOUS BB1: 171 - PROFILE # BB1: ACP - EMERGENCY CONTACT: CHEMREC 1-800-424-9300 AUTOMOTIVE CLARIFIER PROGRAM *** ADDITIONAL EPA CODES: BB1: NONE - APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT PH 7381SA12 4861024 OUC3620 10# A08090494</b>								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Offor's Printed/Typed Name <b>TONY MEDO</b>		Signature <i>[Signature]</i>		Month <b>7</b>	Day <b>31</b>	Year <b>14</b>		
TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit:		Date leaving U.S.:			
	17. Transporter Acknowledgment of Receipt of Materials							
	Transporter 1 Printed/Typed Name <b>WILLIAM CRINAR</b>		Signature <i>[Signature]</i>		Month <b>7</b>	Day <b>31</b>	Year <b>14</b>	
Transporter 2 Printed/Typed Name		Signature <i>[Signature]</i>		Month	Day	Year		
DESIGNATED FACILITY	18. Discrepancy							
	18a. 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							
	18b. Alternate Facility (or Generator)		Manifest Reference Number:		U.S. EPA ID Number			
	Facility's Phone:							
	18c. Signature of Alternate Facility (or Generator)		Signature		Month	Day	Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)								
1. <b>11039</b>		2.		3.		4.		
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a								
Printed/Typed Name		Signature <i>[Signature]</i>		Month <b>12</b>	Day <b>07</b>	Year <b>14</b>		

Please print or type. (Form designed for use on elite (12-pitch) typewriter)

Form Approved, OMB No. 2050-0039

348230-5  
1230 123

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>	1. Generator ID Number <b>CARD00242651</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>(900) 424-6300</b>	4. Manifest Tracking Number <b>013810075 JJK</b>			
5. Generator's Name and Mailing Address <b>PROPERTY OF THE COUNTY OF ALAMEDA 1489 SALMON WAY HAYWARD CA 94544</b>		Generator's Site Address (if different than mailing address) <b>22841 ATHERTON ST HAYWARD CA 94541</b>					
Generator's Phone: <b>925 382-0564</b>		U.S. EPA ID Number <b>CAD026977086</b>					
6. Transporter 1 Company Name <b>ACBURY ENVIRONMENTAL SERVICES</b>		U.S. EPA ID Number					
7. Transporter 2 Company Name		U.S. EPA ID Number					
8. Designated Facility Name and Site Address <b>GIEMENNO / HEDDOON 2000 NORTH ALAMEDA STREET COMPTON CA 90222</b>				U.S. EPA ID Number <b>CAT000013352</b>			
Facility's Phone: <b>(310) 337-7100</b>							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type	11. Total Quantity	12. Unit WL/Vol	13. Waste Codes	
	1.	<b>NON-FLORA HAZARDOUS WASTE, LIQUID (OILY WATER)</b>	<b>001 TT</b>	<b>900</b>	<b>6</b>	<b>223</b>	
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information <b>HAERGE 001 : 171 * PROFILE # 901 : ACP * EMERGENCY CONTACT: CHEMTREC 1-800-424-6300 *** AUTOMOTIVE CLARIFIER PROGRAM *** * APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT</b>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offor's Printed/Typed Name <b>Tony Wood</b>		Signature <i>Tony Wood</i>		Month <b>09</b>	Day <b>25</b>	Year <b>14</b>	
TRANSPORTER INTL	16. 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 signature (for exports only):						
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials		Signature		Month	Day	
	Transporter 1 Printed/Typed Name <b>Eric Thompson</b>		<i>Eric Thompson</i>		<b>09</b>	<b>25</b>	<b>14</b>
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year	
DESIGNATED FACILITY	18. Discrepancy						
	18a. 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						
	18b. Alternate Facility (or Generator)			U.S. EPA ID Number			
	Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. <b>H1039</b>		2.		3.		4.	
20. Designated Facility Owner or Operator. Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a							
Printed/Typed Name <b>Akshay Patel</b>		Signature <i>Akshay Patel</i>		Month <b>09</b>	Day <b>25</b>	Year <b>14</b>	

Date	Profile #	Manifest #	Ticket #	Material	Facility	Tons / Tonnes	Material Quantity	Material Unit
09/19/2014	619108CA	WAM	1054719	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	16.53	16.53	TON
09/12/2014	619108CA	wam	1053978	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	21.88	21.88	TON
09/12/2014	619108CA	wam	1053923	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	19.01	19.01	TON
09/11/2014	619108CA	WAM	1053831	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	18.55	18.55	TON
09/11/2014	619108CA	WAM	1053830	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	18.20	18.20	TON
09/11/2014	619108CA	wam	1053799	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	17.36	17.36	TON
09/11/2014	619108CA	WAM	1053790	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	21.17	21.17	TON

Date	Profile #	Manifest #	Ticket #	Waste	Facility	Tons/Tonnes	Material Quantity	Material Unit
9/19/2014	619108CA	WAM	1054719	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	16.53	16.53	TON
9/12/2014	619108CA	wam	1053978	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	21.88	21.88	TON
9/12/2014	619108CA	wam	1053923	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	19.01	19.01	TON
9/11/2014	619108CA	WAM	1053831	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	18.55	18.55	TON
9/11/2014	619108CA	WAM	1053830	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	18.2	18.2	TON
9/11/2014	619108CA	wam	1053799	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	17.36	17.36	TON
9/11/2014	619108CA	WAM	1053790	GASOLINE IMPACTED SOIL	Altamont Landfill & Resource Recovery Facility	21.17	21.17	TON
							132.7	tons

APPENDIX B  
GEOTECHNICAL CONSULTATION LETTER



September 4, 2014  
Project No. 14-757

Housing Authority of the County of Alameda  
1489 Salmon Way  
Hayward, California 94544-7838

Attention: Mr. George Smith

Subject: Geotechnical Consultation  
Existing Underground Storage Tank  
HACA Office Remodel  
22941 Atherton Street  
Hayward, California

Dear Mr. Smith:

This letter presents the results of our geotechnical consultation regarding an existing underground storage tank (UST) that was discovered during construction of the Housing Authority of the County of Alameda (HACA) remodel project at 22941 Atherton Street in Hayward. Our consultation is based on our observations during a site visit on August 24, 2014 and review of the following documents:

1. Report titled *Geotechnical Investigation for The Proposed Main Office Renovation, Alameda County Housing Authority, 29915/29941 Atherton Street, Hayward, California 94541*, prepared by Summit Engineering, dated May 10, 2008.
2. Sheet C3 (Grading and Utility Plan) of the civil plans prepared by Underwood & Rosenblum, Inc., dated September 10, 2013.
3. Sheets S1.1 (Grading Notes), S1.3 (Typical Concrete Details), and S2.1 (Foundation and Floor Plan) of the structural drawings prepared by Holmes Cully, dated September 10, 2013.

## **BACKGROUND**

The HACA remodel project includes adding a one-story addition to the northwestern corner of the existing HACA main office building and reconstructing the parking lot, concrete flatwork, and landscape improvements around the building perimeter. The addition is mostly completed while the parking lot and landscape improvements around the perimeter of the site are still under construction. In accordance with the

Housing Authority of the County of Alameda  
Attention: Mr. George Smith  
September 4, 2014  
Page 2

recommendations in the 2008 Summit Engineer report and the foundation plan prepared by Holmes Cully, the addition is supported on a shallow, continuous perimeter footing and three isolated spread footings in the interior. The plans call for a four-inch-thick concrete slab-on-grade floor.

During grading of the parking lot and landscaped areas, we understand three USTs were initially discovered north of the northwestern corner of the addition. During removal of the three USTs, a fourth larger UST was discovered in the future landscaped area immediately adjacent to the northwest corner of the building. This fourth UST is an approximately 10,500-gallon tank that is 9.5 feet in diameter and 20 feet long. The southern end of the UST extends beneath the northern perimeter footing for the new addition. The excavation to remove the three USTs was backfilled with engineered fill.

Removal of the remaining UST would necessitate excavating at least 10 feet below the existing perimeter footing for the addition. The excavation would need to extend several feet beyond the edge of the tank in order to remove it, thus requiring the excavation to extend past the perimeter footing and beneath the concrete slab-on-grade floor for the addition. Based on our experience, it is our opinion that removal of the UST would impair or damage the structural integrity of the new addition. Consequently, we recommend the UST be abandoned in place. Recommendations for abandoning the tank in place are as follows:

1. After the inside of the UST is adequately cleaned from an environmental standpoint, the UST should be filled with controlled low-strength material (CLSM), also known as controlled density fill (CDF), with a 28-day unconfined compressive strength of at least 100 psi. After initial placement of the CLSM, it may be necessary to “top off” the CLSM the following day to ensure the UST is completely filled. A small amount of settlement is expected to occur due to compression of the very stiff to hard native clay beneath the UST from the weight of the CLSM. We estimate settlement of the existing footing will be less than  $\frac{1}{4}$  inch and the settlement will occur immediately after placement of the CLSM. This magnitude of settlement may cause some minor cosmetic cracking of the footing and/or stucco facing on the addition, but will not impair the building integrity.
2. There is some existing wood between the top of the tank and the bottom of the foundation. The wood and any loosened soil resulting from removal of the wood should be removed and the resulting void completely filled with “dry pack” (i.e., a cement/sand mixture which is tamped into place).

Housing Authority of the County of Alameda  
Attention: Mr. George Smith  
September 4, 2014  
Page 3

We trust this letter provides the information required at this time. If you have any questions, please call.

Sincerely yours,  
ROCKRIDGE GEOTECHNICAL, INC.



Craig S. Shields, P.E., G.E.  
Principal Geotechnical Engineer

cc: Mr. Glenn Young, SCA Environmental  
Mr. Jim Herrenbruck, URS Corporation

APPENDIX C  
ANALYTICAL REPORTS



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1408500

**Report Created for:** SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612

**Project Contact:** Glenn Young  
**Project P.O.:**  
**Project Name:** #11164 Task4; HACA UST Services

**Project Received:** 08/14/2014

Analytical Report reviewed & approved for release on 08/18/2014 by:

*Question about  
your data?*

[Click here to email  
McC Campbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**WorkOrder:** 1408500

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

### Analytical Qualifiers

S	spike recovery outside accepted recovery limits
a2	sample diluted due to cluttered chromatogram
a3	sample diluted due to high organic content.
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e1/e11	unmodified or weakly modified diesel is significant; and/or stoddard solvent/mineral spirit (?)
e1	unmodified or weakly modified diesel is significant
e11	stoddard solvent/mineral spirit (?)



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB2-OE	1408500-001A	Soil	08/14/2014 09:25	GC10	94039

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	20	200	08/15/2014 16:30
tert-Amyl methyl ether (TAME)	ND	1.0	200	08/15/2014 16:30
Benzene	ND	1.0	200	08/15/2014 16:30
Bromobenzene	ND	1.0	200	08/15/2014 16:30
Bromochloromethane	ND	1.0	200	08/15/2014 16:30
Bromodichloromethane	ND	1.0	200	08/15/2014 16:30
Bromoform	ND	1.0	200	08/15/2014 16:30
Bromomethane	ND	1.0	200	08/15/2014 16:30
2-Butanone (MEK)	ND	4.0	200	08/15/2014 16:30
t-Butyl alcohol (TBA)	ND	10	200	08/15/2014 16:30
n-Butyl benzene	ND	1.0	200	08/15/2014 16:30
sec-Butyl benzene	ND	1.0	200	08/15/2014 16:30
tert-Butyl benzene	ND	1.0	200	08/15/2014 16:30
Carbon Disulfide	ND	1.0	200	08/15/2014 16:30
Carbon Tetrachloride	ND	1.0	200	08/15/2014 16:30
Chlorobenzene	ND	1.0	200	08/15/2014 16:30
Chloroethane	ND	1.0	200	08/15/2014 16:30
Chloroform	ND	1.0	200	08/15/2014 16:30
Chloromethane	ND	1.0	200	08/15/2014 16:30
2-Chlorotoluene	ND	1.0	200	08/15/2014 16:30
4-Chlorotoluene	ND	1.0	200	08/15/2014 16:30
Dibromochloromethane	ND	1.0	200	08/15/2014 16:30
1,2-Dibromo-3-chloropropane	ND	0.80	200	08/15/2014 16:30
1,2-Dibromoethane (EDB)	ND	0.80	200	08/15/2014 16:30
Dibromomethane	ND	1.0	200	08/15/2014 16:30
1,2-Dichlorobenzene	ND	1.0	200	08/15/2014 16:30
1,3-Dichlorobenzene	ND	1.0	200	08/15/2014 16:30
1,4-Dichlorobenzene	ND	1.0	200	08/15/2014 16:30
Dichlorodifluoromethane	ND	1.0	200	08/15/2014 16:30
1,1-Dichloroethane	ND	1.0	200	08/15/2014 16:30
1,2-Dichloroethane (1,2-DCA)	ND	0.80	200	08/15/2014 16:30
1,1-Dichloroethene	ND	1.0	200	08/15/2014 16:30
cis-1,2-Dichloroethene	ND	1.0	200	08/15/2014 16:30
trans-1,2-Dichloroethene	ND	1.0	200	08/15/2014 16:30
1,2-Dichloropropane	ND	1.0	200	08/15/2014 16:30
1,3-Dichloropropane	ND	1.0	200	08/15/2014 16:30
2,2-Dichloropropane	ND	1.0	200	08/15/2014 16:30
1,1-Dichloropropene	ND	1.0	200	08/15/2014 16:30

(Cont.)



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB2-OE	1408500-001A	Soil	08/14/2014 09:25	GC10	94039

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	1.0	200	08/15/2014 16:30
trans-1,3-Dichloropropene	ND	1.0	200	08/15/2014 16:30
Diisopropyl ether (DIPE)	ND	1.0	200	08/15/2014 16:30
Ethylbenzene	ND	1.0	200	08/15/2014 16:30
Ethyl tert-butyl ether (ETBE)	ND	1.0	200	08/15/2014 16:30
Freon 113	ND	20	200	08/15/2014 16:30
Hexachlorobutadiene	ND	1.0	200	08/15/2014 16:30
Hexachloroethane	ND	1.0	200	08/15/2014 16:30
2-Hexanone	ND	1.0	200	08/15/2014 16:30
Isopropylbenzene	ND	1.0	200	08/15/2014 16:30
4-Isopropyl toluene	ND	1.0	200	08/15/2014 16:30
Methyl-t-butyl ether (MTBE)	ND	1.0	200	08/15/2014 16:30
Methylene chloride	ND	1.0	200	08/15/2014 16:30
4-Methyl-2-pentanone (MIBK)	ND	1.0	200	08/15/2014 16:30
Naphthalene	ND	1.0	200	08/15/2014 16:30
n-Propyl benzene	ND	1.0	200	08/15/2014 16:30
Styrene	ND	1.0	200	08/15/2014 16:30
1,1,1,2-Tetrachloroethane	ND	1.0	200	08/15/2014 16:30
1,1,2,2-Tetrachloroethane	ND	1.0	200	08/15/2014 16:30
Tetrachloroethene	ND	1.0	200	08/15/2014 16:30
Toluene	ND	1.0	200	08/15/2014 16:30
1,2,3-Trichlorobenzene	ND	1.0	200	08/15/2014 16:30
1,2,4-Trichlorobenzene	ND	1.0	200	08/15/2014 16:30
1,1,1-Trichloroethane	ND	1.0	200	08/15/2014 16:30
1,1,2-Trichloroethane	ND	1.0	200	08/15/2014 16:30
Trichloroethene	ND	1.0	200	08/15/2014 16:30
Trichlorofluoromethane	ND	1.0	200	08/15/2014 16:30
1,2,3-Trichloropropane	ND	1.0	200	08/15/2014 16:30
1,2,4-Trimethylbenzene	13	1.0	200	08/15/2014 16:30
1,3,5-Trimethylbenzene	1.8	1.0	200	08/15/2014 16:30
Vinyl Chloride	ND	1.0	200	08/15/2014 16:30
Xylenes, Total	ND	1.0	200	08/15/2014 16:30

Surrogates	REC (%)	Limits	Analytical Comments: a2,a3
Dibromofluoromethane	92	70-130	08/15/2014 16:30
Toluene-d8	102	70-130	08/15/2014 16:30
4-BFB	85	70-130	08/15/2014 16:30

(Cont.)





## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB2-OE	1408500-002A	Soil	08/14/2014 09:25	GC10	94039

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	20	200	08/15/2014 17:12
tert-Amyl methyl ether (TAME)	ND	1.0	200	08/15/2014 17:12
Benzene	ND	1.0	200	08/15/2014 17:12
Bromobenzene	ND	1.0	200	08/15/2014 17:12
Bromochloromethane	ND	1.0	200	08/15/2014 17:12
Bromodichloromethane	ND	1.0	200	08/15/2014 17:12
Bromoform	ND	1.0	200	08/15/2014 17:12
Bromomethane	ND	1.0	200	08/15/2014 17:12
2-Butanone (MEK)	ND	4.0	200	08/15/2014 17:12
t-Butyl alcohol (TBA)	ND	10	200	08/15/2014 17:12
n-Butyl benzene	<b>3.8</b>	1.0	200	08/15/2014 17:12
sec-Butyl benzene	ND	1.0	200	08/15/2014 17:12
tert-Butyl benzene	ND	1.0	200	08/15/2014 17:12
Carbon Disulfide	ND	1.0	200	08/15/2014 17:12
Carbon Tetrachloride	ND	1.0	200	08/15/2014 17:12
Chlorobenzene	ND	1.0	200	08/15/2014 17:12
Chloroethane	ND	1.0	200	08/15/2014 17:12
Chloroform	ND	1.0	200	08/15/2014 17:12
Chloromethane	ND	1.0	200	08/15/2014 17:12
2-Chlorotoluene	ND	1.0	200	08/15/2014 17:12
4-Chlorotoluene	ND	1.0	200	08/15/2014 17:12
Dibromochloromethane	ND	1.0	200	08/15/2014 17:12
1,2-Dibromo-3-chloropropane	ND	0.80	200	08/15/2014 17:12
1,2-Dibromoethane (EDB)	ND	0.80	200	08/15/2014 17:12
Dibromomethane	ND	1.0	200	08/15/2014 17:12
1,2-Dichlorobenzene	ND	1.0	200	08/15/2014 17:12
1,3-Dichlorobenzene	ND	1.0	200	08/15/2014 17:12
1,4-Dichlorobenzene	ND	1.0	200	08/15/2014 17:12
Dichlorodifluoromethane	ND	1.0	200	08/15/2014 17:12
1,1-Dichloroethane	ND	1.0	200	08/15/2014 17:12
1,2-Dichloroethane (1,2-DCA)	ND	0.80	200	08/15/2014 17:12
1,1-Dichloroethene	ND	1.0	200	08/15/2014 17:12
cis-1,2-Dichloroethene	ND	1.0	200	08/15/2014 17:12
trans-1,2-Dichloroethene	ND	1.0	200	08/15/2014 17:12
1,2-Dichloropropane	ND	1.0	200	08/15/2014 17:12
1,3-Dichloropropane	ND	1.0	200	08/15/2014 17:12
2,2-Dichloropropane	ND	1.0	200	08/15/2014 17:12
1,1-Dichloropropene	ND	1.0	200	08/15/2014 17:12

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
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### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
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Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	1.0	200	08/15/2014 17:12
trans-1,3-Dichloropropene	ND	1.0	200	08/15/2014 17:12
Diisopropyl ether (DIPE)	ND	1.0	200	08/15/2014 17:12
Ethylbenzene	1.9	1.0	200	08/15/2014 17:12
Ethyl tert-butyl ether (ETBE)	ND	1.0	200	08/15/2014 17:12
Freon 113	ND	20	200	08/15/2014 17:12
Hexachlorobutadiene	ND	1.0	200	08/15/2014 17:12
Hexachloroethane	ND	1.0	200	08/15/2014 17:12
2-Hexanone	ND	1.0	200	08/15/2014 17:12
Isopropylbenzene	1.3	1.0	200	08/15/2014 17:12
4-Isopropyl toluene	ND	1.0	200	08/15/2014 17:12
Methyl-t-butyl ether (MTBE)	ND	1.0	200	08/15/2014 17:12
Methylene chloride	ND	1.0	200	08/15/2014 17:12
4-Methyl-2-pentanone (MIBK)	ND	1.0	200	08/15/2014 17:12
Naphthalene	17	1.0	200	08/15/2014 17:12
n-Propyl benzene	2.7	1.0	200	08/15/2014 17:12
Styrene	ND	1.0	200	08/15/2014 17:12
1,1,1,2-Tetrachloroethane	ND	1.0	200	08/15/2014 17:12
1,1,2,2-Tetrachloroethane	ND	1.0	200	08/15/2014 17:12
Tetrachloroethene	ND	1.0	200	08/15/2014 17:12
Toluene	ND	1.0	200	08/15/2014 17:12
1,2,3-Trichlorobenzene	ND	1.0	200	08/15/2014 17:12
1,2,4-Trichlorobenzene	ND	1.0	200	08/15/2014 17:12
1,1,1-Trichloroethane	ND	1.0	200	08/15/2014 17:12
1,1,2-Trichloroethane	ND	1.0	200	08/15/2014 17:12
Trichloroethene	ND	1.0	200	08/15/2014 17:12
Trichlorofluoromethane	ND	1.0	200	08/15/2014 17:12
1,2,3-Trichloropropane	ND	1.0	200	08/15/2014 17:12
1,2,4-Trimethylbenzene	23	1.0	200	08/15/2014 17:12
1,3,5-Trimethylbenzene	ND	1.0	200	08/15/2014 17:12
Vinyl Chloride	ND	1.0	200	08/15/2014 17:12
Xylenes, Total	ND	1.0	200	08/15/2014 17:12

Surrogates	REC (%)	Limits	Analytical Comments: a2,a3
Dibromofluoromethane	92	70-130	08/15/2014 17:12
Toluene-d8	103	70-130	08/15/2014 17:12
4-BFB	101	70-130	08/15/2014 17:12

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB2-OE	1408500-003A	Soil	08/14/2014 08:40	GC10	94039

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	4.0	40	08/15/2014 17:54
tert-Amyl methyl ether (TAME)	ND	0.20	40	08/15/2014 17:54
Benzene	ND	0.20	40	08/15/2014 17:54
Bromobenzene	ND	0.20	40	08/15/2014 17:54
Bromochloromethane	ND	0.20	40	08/15/2014 17:54
Bromodichloromethane	ND	0.20	40	08/15/2014 17:54
Bromoform	ND	0.20	40	08/15/2014 17:54
Bromomethane	ND	0.20	40	08/15/2014 17:54
2-Butanone (MEK)	ND	0.80	40	08/15/2014 17:54
t-Butyl alcohol (TBA)	ND	2.0	40	08/15/2014 17:54
n-Butyl benzene	<b>0.60</b>	0.20	40	08/15/2014 17:54
sec-Butyl benzene	ND	0.20	40	08/15/2014 17:54
tert-Butyl benzene	ND	0.20	40	08/15/2014 17:54
Carbon Disulfide	ND	0.20	40	08/15/2014 17:54
Carbon Tetrachloride	ND	0.20	40	08/15/2014 17:54
Chlorobenzene	ND	0.20	40	08/15/2014 17:54
Chloroethane	ND	0.20	40	08/15/2014 17:54
Chloroform	ND	0.20	40	08/15/2014 17:54
Chloromethane	ND	0.20	40	08/15/2014 17:54
2-Chlorotoluene	ND	0.20	40	08/15/2014 17:54
4-Chlorotoluene	ND	0.20	40	08/15/2014 17:54
Dibromochloromethane	ND	0.20	40	08/15/2014 17:54
1,2-Dibromo-3-chloropropane	ND	0.16	40	08/15/2014 17:54
1,2-Dibromoethane (EDB)	ND	0.16	40	08/15/2014 17:54
Dibromomethane	ND	0.20	40	08/15/2014 17:54
1,2-Dichlorobenzene	ND	0.20	40	08/15/2014 17:54
1,3-Dichlorobenzene	ND	0.20	40	08/15/2014 17:54
1,4-Dichlorobenzene	ND	0.20	40	08/15/2014 17:54
Dichlorodifluoromethane	ND	0.20	40	08/15/2014 17:54
1,1-Dichloroethane	ND	0.20	40	08/15/2014 17:54
1,2-Dichloroethane (1,2-DCA)	ND	0.16	40	08/15/2014 17:54
1,1-Dichloroethene	ND	0.20	40	08/15/2014 17:54
cis-1,2-Dichloroethene	ND	0.20	40	08/15/2014 17:54
trans-1,2-Dichloroethene	ND	0.20	40	08/15/2014 17:54
1,2-Dichloropropane	ND	0.20	40	08/15/2014 17:54
1,3-Dichloropropane	ND	0.20	40	08/15/2014 17:54
2,2-Dichloropropane	ND	0.20	40	08/15/2014 17:54
1,1-Dichloropropene	ND	0.20	40	08/15/2014 17:54

(Cont.)



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB2-OE	1408500-003A	Soil	08/14/2014 08:40	GC10	94039

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.20	40	08/15/2014 17:54
trans-1,3-Dichloropropene	ND	0.20	40	08/15/2014 17:54
Diisopropyl ether (DIPE)	ND	0.20	40	08/15/2014 17:54
Ethylbenzene	ND	0.20	40	08/15/2014 17:54
Ethyl tert-butyl ether (ETBE)	ND	0.20	40	08/15/2014 17:54
Freon 113	ND	4.0	40	08/15/2014 17:54
Hexachlorobutadiene	ND	0.20	40	08/15/2014 17:54
Hexachloroethane	ND	0.20	40	08/15/2014 17:54
2-Hexanone	ND	0.20	40	08/15/2014 17:54
Isopropylbenzene	0.20	0.20	40	08/15/2014 17:54
4-Isopropyl toluene	0.43	0.20	40	08/15/2014 17:54
Methyl-t-butyl ether (MTBE)	ND	0.20	40	08/15/2014 17:54
Methylene chloride	ND	0.20	40	08/15/2014 17:54
4-Methyl-2-pentanone (MIBK)	ND	0.20	40	08/15/2014 17:54
Naphthalene	2.4	0.20	40	08/15/2014 17:54
n-Propyl benzene	ND	0.20	40	08/15/2014 17:54
Styrene	ND	0.20	40	08/15/2014 17:54
1,1,1,2-Tetrachloroethane	ND	0.20	40	08/15/2014 17:54
1,1,2,2-Tetrachloroethane	ND	0.20	40	08/15/2014 17:54
Tetrachloroethene	ND	0.20	40	08/15/2014 17:54
Toluene	ND	0.20	40	08/15/2014 17:54
1,2,3-Trichlorobenzene	ND	0.20	40	08/15/2014 17:54
1,2,4-Trichlorobenzene	ND	0.20	40	08/15/2014 17:54
1,1,1-Trichloroethane	ND	0.20	40	08/15/2014 17:54
1,1,2-Trichloroethane	ND	0.20	40	08/15/2014 17:54
Trichloroethene	ND	0.20	40	08/15/2014 17:54
Trichlorofluoromethane	ND	0.20	40	08/15/2014 17:54
1,2,3-Trichloropropane	ND	0.20	40	08/15/2014 17:54
1,2,4-Trimethylbenzene	2.6	0.20	40	08/15/2014 17:54
1,3,5-Trimethylbenzene	ND	0.20	40	08/15/2014 17:54
Vinyl Chloride	ND	0.20	40	08/15/2014 17:54
Xylenes, Total	0.68	0.20	40	08/15/2014 17:54

Surrogates	REC (%)	Limits	Analytical Comments: a2,a3
Dibromofluoromethane	91	70-130	08/15/2014 17:54
Toluene-d8	102	70-130	08/15/2014 17:54
4-BFB	97	70-130	08/15/2014 17:54

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWOE-E1	1408500-004A	Soil	08/14/2014 09:35	GC10	94039

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	0.50	5	08/15/2014 15:48
tert-Amyl methyl ether (TAME)	ND	0.025	5	08/15/2014 15:48
Benzene	ND	0.025	5	08/15/2014 15:48
Bromobenzene	ND	0.025	5	08/15/2014 15:48
Bromochloromethane	ND	0.025	5	08/15/2014 15:48
Bromodichloromethane	ND	0.025	5	08/15/2014 15:48
Bromoform	ND	0.025	5	08/15/2014 15:48
Bromomethane	ND	0.025	5	08/15/2014 15:48
2-Butanone (MEK)	ND	0.10	5	08/15/2014 15:48
t-Butyl alcohol (TBA)	ND	0.25	5	08/15/2014 15:48
n-Butyl benzene	ND	0.025	5	08/15/2014 15:48
sec-Butyl benzene	ND	0.025	5	08/15/2014 15:48
tert-Butyl benzene	ND	0.025	5	08/15/2014 15:48
Carbon Disulfide	ND	0.025	5	08/15/2014 15:48
Carbon Tetrachloride	ND	0.025	5	08/15/2014 15:48
Chlorobenzene	ND	0.025	5	08/15/2014 15:48
Chloroethane	ND	0.025	5	08/15/2014 15:48
Chloroform	ND	0.025	5	08/15/2014 15:48
Chloromethane	ND	0.025	5	08/15/2014 15:48
2-Chlorotoluene	ND	0.025	5	08/15/2014 15:48
4-Chlorotoluene	ND	0.025	5	08/15/2014 15:48
Dibromochloromethane	ND	0.025	5	08/15/2014 15:48
1,2-Dibromo-3-chloropropane	ND	0.020	5	08/15/2014 15:48
1,2-Dibromoethane (EDB)	ND	0.020	5	08/15/2014 15:48
Dibromomethane	ND	0.025	5	08/15/2014 15:48
1,2-Dichlorobenzene	ND	0.025	5	08/15/2014 15:48
1,3-Dichlorobenzene	ND	0.025	5	08/15/2014 15:48
1,4-Dichlorobenzene	ND	0.025	5	08/15/2014 15:48
Dichlorodifluoromethane	ND	0.025	5	08/15/2014 15:48
1,1-Dichloroethane	ND	0.025	5	08/15/2014 15:48
1,2-Dichloroethane (1,2-DCA)	ND	0.020	5	08/15/2014 15:48
1,1-Dichloroethene	ND	0.025	5	08/15/2014 15:48
cis-1,2-Dichloroethene	ND	0.025	5	08/15/2014 15:48
trans-1,2-Dichloroethene	ND	0.025	5	08/15/2014 15:48
1,2-Dichloropropane	ND	0.025	5	08/15/2014 15:48
1,3-Dichloropropane	ND	0.025	5	08/15/2014 15:48
2,2-Dichloropropane	ND	0.025	5	08/15/2014 15:48
1,1-Dichloropropene	ND	0.025	5	08/15/2014 15:48

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWOE-E1	1408500-004A	Soil	08/14/2014 09:35	GC10	94039

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.025	5	08/15/2014 15:48
trans-1,3-Dichloropropene	ND	0.025	5	08/15/2014 15:48
Diisopropyl ether (DIPE)	ND	0.025	5	08/15/2014 15:48
Ethylbenzene	ND	0.025	5	08/15/2014 15:48
Ethyl tert-butyl ether (ETBE)	ND	0.025	5	08/15/2014 15:48
Freon 113	ND	0.50	5	08/15/2014 15:48
Hexachlorobutadiene	ND	0.025	5	08/15/2014 15:48
Hexachloroethane	ND	0.025	5	08/15/2014 15:48
2-Hexanone	ND	0.025	5	08/15/2014 15:48
Isopropylbenzene	ND	0.025	5	08/15/2014 15:48
4-Isopropyl toluene	ND	0.025	5	08/15/2014 15:48
Methyl-t-butyl ether (MTBE)	ND	0.025	5	08/15/2014 15:48
Methylene chloride	ND	0.025	5	08/15/2014 15:48
4-Methyl-2-pentanone (MIBK)	ND	0.025	5	08/15/2014 15:48
Naphthalene	ND	0.025	5	08/15/2014 15:48
n-Propyl benzene	<b>0.031</b>	0.025	5	08/15/2014 15:48
Styrene	ND	0.025	5	08/15/2014 15:48
1,1,1,2-Tetrachloroethane	ND	0.025	5	08/15/2014 15:48
1,1,2,2-Tetrachloroethane	ND	0.025	5	08/15/2014 15:48
Tetrachloroethene	ND	0.025	5	08/15/2014 15:48
Toluene	ND	0.025	5	08/15/2014 15:48
1,2,3-Trichlorobenzene	ND	0.025	5	08/15/2014 15:48
1,2,4-Trichlorobenzene	ND	0.025	5	08/15/2014 15:48
1,1,1-Trichloroethane	ND	0.025	5	08/15/2014 15:48
1,1,2-Trichloroethane	ND	0.025	5	08/15/2014 15:48
Trichloroethene	ND	0.025	5	08/15/2014 15:48
Trichlorofluoromethane	ND	0.025	5	08/15/2014 15:48
1,2,3-Trichloropropane	ND	0.025	5	08/15/2014 15:48
1,2,4-Trimethylbenzene	<b>0.29</b>	0.025	5	08/15/2014 15:48
1,3,5-Trimethylbenzene	ND	0.025	5	08/15/2014 15:48
Vinyl Chloride	ND	0.025	5	08/15/2014 15:48
Xylenes, Total	ND	0.025	5	08/15/2014 15:48
<b>Surrogates</b>	<b>REC (%)</b>	<b>Limits</b>	<b>Analytical Comments: a2,a3</b>	
Dibromofluoromethane	90	70-130		08/15/2014 15:48
Toluene-d8	103	70-130		08/15/2014 15:48
4-BFB	87	70-130		08/15/2014 15:48



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB2-OE	1408500-001A	Soil	08/14/2014 09:25	GC3	94053

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	2100	200	200	08/15/2014 16:15
MTBE	---	10	200	08/15/2014 16:15
Benzene	---	1.0	200	08/15/2014 16:15
Toluene	---	1.0	200	08/15/2014 16:15
Ethylbenzene	---	1.0	200	08/15/2014 16:15
Xylenes	---	1.0	200	08/15/2014 16:15
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
2-Fluorotoluene	78	70-130		08/15/2014 16:15

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB2-OE	1408500-002A	Soil	08/14/2014 09:25	GC3	94053

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	2000	200	200	08/15/2014 17:16
MTBE	---	10	200	08/15/2014 17:16
Benzene	---	1.0	200	08/15/2014 17:16
Toluene	---	1.0	200	08/15/2014 17:16
Ethylbenzene	---	1.0	200	08/15/2014 17:16
Xylenes	---	1.0	200	08/15/2014 17:16
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
2-Fluorotoluene	112	70-130		08/15/2014 17:16

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB2-OE	1408500-003A	Soil	08/14/2014 08:40	GC3	94053

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	800	200	200	08/15/2014 17:46
MTBE	---	10	200	08/15/2014 17:46
Benzene	---	1.0	200	08/15/2014 17:46
Toluene	---	1.0	200	08/15/2014 17:46
Ethylbenzene	---	1.0	200	08/15/2014 17:46
Xylenes	---	1.0	200	08/15/2014 17:46
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
2-Fluorotoluene	80	70-130		08/15/2014 17:46

(Cont.)



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWOE-E1	1408500-004A	Soil	08/14/2014 09:35	GC19	94053

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	26	10	10	08/18/2014 14:14
MTBE	---	0.50	10	08/18/2014 14:14
Benzene	---	0.050	10	08/18/2014 14:14
Toluene	---	0.050	10	08/18/2014 14:14
Ethylbenzene	---	0.050	10	08/18/2014 14:14
Xylenes	---	0.050	10	08/18/2014 14:14
Surrogates	REC (%)	Limits	Analytical Comments: d7	
2-Fluorotoluene	104	70-130	08/18/2014 14:14	





## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11164 Task4; HACA UST Services  
**Date Received:** 8/14/14 18:08  
**Date Prepared:** 8/14/14

**WorkOrder:** 1408500  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB2-OE	1408500-001A	Soil	08/14/2014 09:25	GC6B	94063

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	5500	50	50	08/17/2014 15:26
TPH-Motor Oil (C18-C36)	2000	250	50	08/17/2014 15:26

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: e1/e11,c1
C9	152	S	70-130	08/17/2014 15:26

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB2-OE	1408500-002A	Soil	08/14/2014 09:25	GC11B	94063

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	5700	20	20	08/18/2014 15:44
TPH-Motor Oil (C18-C36)	2300	100	20	08/18/2014 15:44

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: e1,e11,c1
C26	146	S	70-130	08/18/2014 15:44

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB2-OE	1408500-003A	Soil	08/14/2014 08:40	GC9a	94063

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	5700	50	50	08/17/2014 11:42
TPH-Motor Oil (C18-C36)	3100	250	50	08/17/2014 11:42

Surrogates	REC (%)	Limits	Analytical Comments: e1
C9	129	70-130	08/17/2014 11:42

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SWOE-E1	1408500-004A	Soil	08/14/2014 09:35	GC11B	94063

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	250	10	10	08/18/2014 13:20
TPH-Motor Oil (C18-C36)	210	50	10	08/18/2014 13:20

Surrogates	REC (%)	Limits	Analytical Comments: e1
C9	112	70-130	08/18/2014 13:20



# Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/14/14  
**Date Analyzed:** 8/14/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #11164 Task4; HACA UST Services

**WorkOrder:** 1408500  
**BatchID:** 94039  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-94039  
 1408476-004AMS/MSD

## QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0407	0.0050	0.050	-	81.4	61-115
Benzene	ND	0.0455	0.0050	0.050	-	91	75-126
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.170	0.050	0.20	-	85.1	63-125
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0459	0.0050	0.050	-	91.7	80-118
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0445	0.0040	0.050	-	89	74-121
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0462	0.0040	0.050	-	92.5	68-122
1,1-Dichloroethene	ND	0.0409	0.0050	0.050	-	81.8	65-138
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/14/14  
**Date Analyzed:** 8/14/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #11164 Task4; HACA UST Services

**WorkOrder:** 1408500  
**BatchID:** 94039  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-94039  
 1408476-004AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0443	0.0050	0.050	-	88.5	68-117
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0431	0.0050	0.050	-	86.2	67-116
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0424	0.0050	0.050	-	84.7	66-118
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0486	0.0050	0.050	-	97.1	84-129
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0476	0.0050	0.050	-	95.3	82-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

#### Surrogate Recovery

Dibromofluoromethane	0.114	0.119		0.12	91	95	80-120
Toluene-d8	0.136	0.131		0.12	109	105	80-120
4-BFB	0.0134	0.0123		0.012	107	99	80-120

(Cont.)



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/14/14  
**Date Analyzed:** 8/14/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #11164 Task4; HACA UST Services

**WorkOrder:** 1408500  
**BatchID:** 94039  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-94039  
 1408476-004AMS/MSD

### QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0372	0.0390	0.050	ND	74.4	77.9	70-130	4.57	30
Benzene	0.0437	0.0432	0.050	ND	87.4	86.4	70-130	1.07	30
t-Butyl alcohol (TBA)	0.157	0.169	0.20	ND	78.7	84.4	70-130	7.02	30
Chlorobenzene	0.0434	0.0432	0.050	ND	86.7	86.5	70-130	0.294	30
1,2-Dibromoethane (EDB)	0.0417	0.0428	0.050	ND	83.3	85.7	70-130	2.77	30
1,2-Dichloroethane (1,2-DCA)	0.0441	0.0440	0.050	ND	88.2	88	70-130	0.206	30
1,1-Dichloroethene	0.0409	0.0385	0.050	ND	81.9	77	70-130	6.16	30
Diisopropyl ether (DIPE)	0.0425	0.0428	0.050	ND	84.9	85.7	70-130	0.882	30
Ethyl tert-butyl ether (ETBE)	0.0408	0.0416	0.050	ND	81.7	83.2	70-130	1.81	30
Methyl-t-butyl ether (MTBE)	0.0409	0.0406	0.050	ND	81.7	81.1	70-130	0.788	30
Toluene	0.0472	0.0456	0.050	ND	94.3	91.3	70-130	3.27	30
Trichloroethene	0.0453	0.0429	0.050	ND	90.5	85.8	70-130	5.41	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.118	0.120	0.12		94	96	70-130	1.97	30
Toluene-d8	0.133	0.133	0.12		106	106	70-130	0	30
4-BFB	0.0115	0.0126	0.012		92	101	70-130	9.08	30



# Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/14/14  
**Date Analyzed:** 8/15/14  
**Instrument:** GC19  
**Matrix:** Soil  
**Project:** #11164 Task4; HACA UST Services

**WorkOrder:** 1408500  
**BatchID:** 94053  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-94053  
 1408497-001AMS/MSD

## QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.530	0.40	0.60	-	88.4	70-130
MTBE	ND	0.0942	0.050	0.10	-	94.3	70-130
Benzene	ND	0.107	0.0050	0.10	-	107	70-130
Toluene	ND	0.106	0.0050	0.10	-	106	70-130
Ethylbenzene	ND	0.104	0.0050	0.10	-	104	70-130
Xylenes	ND	0.327	0.0050	0.30	-	109	70-130

**Surrogate Recovery**

2-Fluorotoluene	0.105	0.108		0.10	105	108	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	0.544	0.549	0.60	ND	90.6	91.6	70-130	1.06	20
MTBE	0.0858	0.0835	0.10	ND	85.8	83.5	70-130	2.68	20
Benzene	0.103	0.0979	0.10	ND	103	97.9	70-130	5.00	20
Toluene	0.104	0.0992	0.10	ND	104	99.2	70-130	4.77	20
Ethylbenzene	0.102	0.0982	0.10	ND	101	98.2	70-130	3.25	20
Xylenes	0.320	0.314	0.30	ND	107	105	70-130	1.93	20

**Surrogate Recovery**

2-Fluorotoluene	0.103	0.0978	0.10		103	98	70-130	5.35	20
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## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/14/14  
**Date Analyzed:** 8/16/14  
**Instrument:** GC6A  
**Matrix:** Soil  
**Project:** #11164 Task4; HACA UST Services

**WorkOrder:** 1408500  
**BatchID:** 94063  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-94063  
 1408500-001AMS/MSD

### QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	41.0	1.0	40	-	102	70-130
<b>Surrogate Recovery</b>							
C9	18.7	18.5		25	75	74	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR	0	5500	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
C9	NR	NR	0		NR	NR	-	NR	



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1408500

ClientCode: SCAO

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQuIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Glenn Young  
SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: gyoung@sca-enviro.com  
cc/3rd Party:  
PO:  
ProjectNo: #11164 Task4; HACA UST Services

**Bill to:**

Accounts Payable  
SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612  
emuse@sca-ic.com

**Requested TAT:**

**2 days**

*Date Received:*    **08/14/2014**

*Date Printed:*    **08/14/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1408500-001	UST1-SB2-OE	Soil	8/14/2014 9:25	<input type="checkbox"/>	A	A											
1408500-002	UST2-SB2-OE	Soil	8/14/2014 9:25	<input type="checkbox"/>	A	A											
1408500-003	UST3-SB2-OE	Soil	8/14/2014 8:40	<input type="checkbox"/>	A	A											
1408500-004	SWOE-E1	Soil	8/14/2014 9:35	<input type="checkbox"/>	A	A											

**Test Legend:**

1	8260B_S	2	G-MBTEX_S	3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A contain testgroup.

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** SCA ENVIROMENTAL, INC.  
**Project:** #11164 Task4; HACA UST Services  
**Comments:**

**QC Level:** LEVEL 2  
**Client Contact:** Glenn Young  
**Contact's Email:** gyoung@sca-enviro.com

**Work Order:** 1408500  
**Date Received:** 8/14/2014

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1408500-001A	UST1-SB2-OE	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube	<input type="checkbox"/>	8/14/2014 9:25	2 days		<input type="checkbox"/>	
			SW8260B (VOCs)	<input type="checkbox"/>		2 days				<input type="checkbox"/>	
1408500-002A	UST2-SB2-OE	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube	<input type="checkbox"/>	8/14/2014 9:25	2 days		<input type="checkbox"/>	
			SW8260B (VOCs)	<input type="checkbox"/>		2 days				<input type="checkbox"/>	
1408500-003A	UST3-SB2-OE	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube	<input type="checkbox"/>	8/14/2014 8:40	2 days		<input type="checkbox"/>	
			SW8260B (VOCs)	<input type="checkbox"/>		2 days				<input type="checkbox"/>	
1408500-004A	SWOE-E1	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube	<input type="checkbox"/>	8/14/2014 9:35	2 days		<input type="checkbox"/>	
			SW8260B (VOCs)	<input type="checkbox"/>		2 days				<input type="checkbox"/>	

**\* NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

**Bottle Legend:**

Stainless Tube =



**RUSH**

CHAIN OF CUSTODY

1408500

PROJECT NAME: HACA UST Services

PROJECT NO.: 11167 Task4

LAB: McCampbell

PROJECT CONTACT: Glenn Young

TURNAROUND: 48 hour TAT

SEND REPORTS/INVOICES TO:

Glenn Young

Email:

[gyoung@sca-enviro.com](mailto:gyoung@sca-enviro.com)

SAMPLED BY: GSY TK

ANALYSIS REQUESTED .

LABORATORY I.D. NUMBER	SCA SAMPLE I.D.	MATRIX				CONTAINERS					PRESERVATIVE					SAMPLE COLLECTION INFORMATION		NOTES	TPHg	TPHd & TPHmo	TOG	VOCs (8260) including, BTEX, MTBE, TAME, ETBE, DIPE, TBA & HVOCs	LUFT Metals	SVOCs (8270) including PCB, PCP, PNAS, Creosote									
		WATER	SOIL	AIR	SLUDGE	VOA	LITER	POLY	TUBE	GLASS JAR	ICE	HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	OTHER	NONE	DATE (MM/DD/YY)								TIME								
	UST1-SBZ-OE	X	X					X		X						08/14/14	09:25	X	X	X													
	UST2-SBZ-OE	X	X					X		X						08/14/14	09:25	X	X	X													
	UST3-SBZ-OE	X	X					X		X						08/14/14	08:40	X	X	X													
	SWOE-EI	X	X					X		X						08/14/14	09:35	X	X	X													

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) <i>TK</i>	DATE/TIME 8/14/14 1745	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE/TIME 8/14/14 1625
RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE/TIME 8/14/14 1745	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE/TIME 8/14/14 1745
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

COMMENTS & NOTES:

ICE 2.5  
GOOD CONDITION \_\_\_\_\_ APPROPRIATE  
HEAD SPACE ABSENT \_\_\_\_\_ CONTAINERS \_\_\_\_\_  
DECHLORINATED IN LAB \_\_\_\_\_ PRESERVED IN LAB \_\_\_\_\_  
PRESERVATION VOAS | O & G | METALS | OTHER



### Sample Receipt Checklist

Client Name: **SCA Enviromental, Inc.** Date and Time Received: **8/14/2014 6:08:36 PM**  
 Project Name: **#11164 Task4; HACA UST Services** LogIn Reviewed by: **Jena Alfaro**  
 WorkOrder №: **1408500** Matrix: Soil Carrier: Rob Pringle (MAI Courier)

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No   
 Container/Temp Blank temperature Cooler Temp: 2.5°C NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: pH<2; 522: pH<4)? Yes  No  NA   
 Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1408080

**Report Created for:** SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612

**Project Contact:** Glenn Young

**Project P.O.:**

**Project Name:** #11167 Task4; HACA UST Services

**Project Received:** 08/04/2014

Analytical Report reviewed & approved for release on 08/06/2014 by:

*Question about  
your data?*

[Click here to email  
McC Campbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Environmental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**WorkOrder:** 1408080

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

### Analytical Qualifiers

S	spike recovery outside accepted recovery limits
a3	sample diluted due to high organic content.
a4	the reporting limits were raised due to the sample's matrix prohibiting a full volume extraction.
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9	no recognizable pattern
e1	unmodified or weakly modified diesel is significant
e7	oil range compounds are significant
h4	sulfuric acid permanganate (EPA 3665) cleanup

### Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
----	--



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/5/14

**WorkOrder:** 1408080  
**Extraction Method:** SM5520E/F  
**Analytical Method:** SM5520E/F  
**Unit:** mg/Kg

## Oil & Grease without Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	O&G	93642

Analytes	Result	RL	DF	Date Analyzed
TOG	370	50	1	08/05/2014 13:45

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	O&G	93642

Analytes	Result	RL	DF	Date Analyzed
TOG	120	50	1	08/05/2014 13:50



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	GC5A	93614

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.25	5	08/06/2014 08:16
Aroclor1221	ND	0.25	5	08/06/2014 08:16
Aroclor1232	ND	0.25	5	08/06/2014 08:16
Aroclor1242	ND	0.25	5	08/06/2014 08:16
Aroclor1248	ND	0.25	5	08/06/2014 08:16
Aroclor1254	ND	0.25	5	08/06/2014 08:16
Aroclor1260	ND	0.25	5	08/06/2014 08:16
PCBs, total	ND	0.25	5	08/06/2014 08:16

Surrogates	REC (%)	Qualifiers	Limits	Analytical Comments: c1,h4
Decachlorobiphenyl	148	S	70-130	08/06/2014 08:16

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	GC5A	93614

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	08/06/2014 07:39
Aroclor1221	ND	0.050	1	08/06/2014 07:39
Aroclor1232	ND	0.050	1	08/06/2014 07:39
Aroclor1242	ND	0.050	1	08/06/2014 07:39
Aroclor1248	ND	0.050	1	08/06/2014 07:39
Aroclor1254	ND	0.050	1	08/06/2014 07:39
Aroclor1260	ND	0.050	1	08/06/2014 07:39
PCBs, total	ND	0.050	1	08/06/2014 07:39

Surrogates	REC (%)	Limits	Analytical Comments: h4
Decachlorobiphenyl	122	70-130	08/06/2014 07:39



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/5/14

**WorkOrder:** 1408080  
**Extraction Method:** SW8151A  
**Analytical Method:** SW8151A  
**Unit:** mg/kg

## Pentachlorophenol (PCP) by GC-ECD

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	GC15	93634

Analytes	Result	RL	DF	Date Analyzed
Pentachlorophenol (PCP)	ND	1.0	20	08/05/2014 19:15

Surrogates	REC (%)	Limits	Analytical Comments: a3	Date Analyzed
DCAA	106	60-140		08/05/2014 19:15

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	GC15	93634

Analytes	Result	RL	DF	Date Analyzed
Pentachlorophenol (PCP)	ND	0.050	1	08/05/2014 19:56

Surrogates	REC (%)	Limits	Date Analyzed
DCAA	118	60-140	08/05/2014 19:56



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	GC10	93602

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	20	200	08/05/2014 02:14
tert-Amyl methyl ether (TAME)	ND	1.0	200	08/05/2014 02:14
Benzene	ND	1.0	200	08/05/2014 02:14
Bromobenzene	ND	1.0	200	08/05/2014 02:14
Bromochloromethane	ND	1.0	200	08/05/2014 02:14
Bromodichloromethane	ND	1.0	200	08/05/2014 02:14
Bromoform	ND	1.0	200	08/05/2014 02:14
Bromomethane	ND	1.0	200	08/05/2014 02:14
2-Butanone (MEK)	ND	4.0	200	08/05/2014 02:14
t-Butyl alcohol (TBA)	ND	10	200	08/05/2014 02:14
n-Butyl benzene	1.5	1.0	200	08/05/2014 02:14
sec-Butyl benzene	ND	1.0	200	08/05/2014 02:14
tert-Butyl benzene	ND	1.0	200	08/05/2014 02:14
Carbon Disulfide	ND	1.0	200	08/05/2014 02:14
Carbon Tetrachloride	ND	1.0	200	08/05/2014 02:14
Chlorobenzene	ND	1.0	200	08/05/2014 02:14
Chloroethane	ND	1.0	200	08/05/2014 02:14
Chloroform	ND	1.0	200	08/05/2014 02:14
Chloromethane	ND	1.0	200	08/05/2014 02:14
2-Chlorotoluene	ND	1.0	200	08/05/2014 02:14
4-Chlorotoluene	ND	1.0	200	08/05/2014 02:14
Dibromochloromethane	ND	1.0	200	08/05/2014 02:14
1,2-Dibromo-3-chloropropane	ND	0.80	200	08/05/2014 02:14
1,2-Dibromoethane (EDB)	ND	0.80	200	08/05/2014 02:14
Dibromomethane	ND	1.0	200	08/05/2014 02:14
1,2-Dichlorobenzene	ND	1.0	200	08/05/2014 02:14
1,3-Dichlorobenzene	ND	1.0	200	08/05/2014 02:14
1,4-Dichlorobenzene	ND	1.0	200	08/05/2014 02:14
Dichlorodifluoromethane	ND	1.0	200	08/05/2014 02:14
1,1-Dichloroethane	ND	1.0	200	08/05/2014 02:14
1,2-Dichloroethane (1,2-DCA)	ND	0.80	200	08/05/2014 02:14
1,1-Dichloroethene	ND	1.0	200	08/05/2014 02:14
cis-1,2-Dichloroethene	ND	1.0	200	08/05/2014 02:14
trans-1,2-Dichloroethene	ND	1.0	200	08/05/2014 02:14
1,2-Dichloropropane	ND	1.0	200	08/05/2014 02:14
1,3-Dichloropropane	ND	1.0	200	08/05/2014 02:14
2,2-Dichloropropane	ND	1.0	200	08/05/2014 02:14
1,1-Dichloropropene	ND	1.0	200	08/05/2014 02:14

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	GC10	93602

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	1.0	200	08/05/2014 02:14
trans-1,3-Dichloropropene	ND	1.0	200	08/05/2014 02:14
Diisopropyl ether (DIPE)	ND	1.0	200	08/05/2014 02:14
Ethylbenzene	2.9	1.0	200	08/05/2014 02:14
Ethyl tert-butyl ether (ETBE)	ND	1.0	200	08/05/2014 02:14
Freon 113	ND	20	200	08/05/2014 02:14
Hexachlorobutadiene	ND	1.0	200	08/05/2014 02:14
Hexachloroethane	ND	1.0	200	08/05/2014 02:14
2-Hexanone	ND	1.0	200	08/05/2014 02:14
Isopropylbenzene	1.4	1.0	200	08/05/2014 02:14
4-Isopropyl toluene	ND	1.0	200	08/05/2014 02:14
Methyl-t-butyl ether (MTBE)	ND	1.0	200	08/05/2014 02:14
Methylene chloride	ND	1.0	200	08/05/2014 02:14
4-Methyl-2-pentanone (MIBK)	ND	1.0	200	08/05/2014 02:14
Naphthalene	14	1.0	200	08/05/2014 02:14
n-Propyl benzene	2.5	1.0	200	08/05/2014 02:14
Styrene	ND	1.0	200	08/05/2014 02:14
1,1,1,2-Tetrachloroethane	ND	1.0	200	08/05/2014 02:14
1,1,2,2-Tetrachloroethane	ND	1.0	200	08/05/2014 02:14
Tetrachloroethene	ND	1.0	200	08/05/2014 02:14
Toluene	ND	1.0	200	08/05/2014 02:14
1,2,3-Trichlorobenzene	ND	1.0	200	08/05/2014 02:14
1,2,4-Trichlorobenzene	ND	1.0	200	08/05/2014 02:14
1,1,1-Trichloroethane	ND	1.0	200	08/05/2014 02:14
1,1,2-Trichloroethane	ND	1.0	200	08/05/2014 02:14
Trichloroethene	ND	1.0	200	08/05/2014 02:14
Trichlorofluoromethane	ND	1.0	200	08/05/2014 02:14
1,2,3-Trichloropropane	ND	1.0	200	08/05/2014 02:14
1,2,4-Trimethylbenzene	20	1.0	200	08/05/2014 02:14
1,3,5-Trimethylbenzene	ND	1.0	200	08/05/2014 02:14
Vinyl Chloride	ND	1.0	200	08/05/2014 02:14
Xylenes, Total	2.1	1.0	200	08/05/2014 02:14
Surrogates	REC (%)	Limits		
Dibromofluoromethane	91	70-130		08/05/2014 02:14
Toluene-d8	95	70-130		08/05/2014 02:14
4-BFB	89	70-130		08/05/2014 02:14

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	GC16	93602

Analytes	Result	RL	DF	Date Analyzed
Acetone	ND	2.0	20	08/05/2014 22:27
tert-Amyl methyl ether (TAME)	ND	0.10	20	08/05/2014 22:27
Benzene	ND	0.10	20	08/05/2014 22:27
Bromobenzene	ND	0.10	20	08/05/2014 22:27
Bromochloromethane	ND	0.10	20	08/05/2014 22:27
Bromodichloromethane	ND	0.10	20	08/05/2014 22:27
Bromoform	ND	0.10	20	08/05/2014 22:27
Bromomethane	ND	0.10	20	08/05/2014 22:27
2-Butanone (MEK)	ND	0.40	20	08/05/2014 22:27
t-Butyl alcohol (TBA)	ND	1.0	20	08/05/2014 22:27
n-Butyl benzene	<b>0.18</b>	0.10	20	08/05/2014 22:27
sec-Butyl benzene	ND	0.10	20	08/05/2014 22:27
tert-Butyl benzene	ND	0.10	20	08/05/2014 22:27
Carbon Disulfide	ND	0.10	20	08/05/2014 22:27
Carbon Tetrachloride	ND	0.10	20	08/05/2014 22:27
Chlorobenzene	ND	0.10	20	08/05/2014 22:27
Chloroethane	ND	0.10	20	08/05/2014 22:27
Chloroform	ND	0.10	20	08/05/2014 22:27
Chloromethane	ND	0.10	20	08/05/2014 22:27
2-Chlorotoluene	ND	0.10	20	08/05/2014 22:27
4-Chlorotoluene	ND	0.10	20	08/05/2014 22:27
Dibromochloromethane	ND	0.10	20	08/05/2014 22:27
1,2-Dibromo-3-chloropropane	ND	0.080	20	08/05/2014 22:27
1,2-Dibromoethane (EDB)	ND	0.080	20	08/05/2014 22:27
Dibromomethane	ND	0.10	20	08/05/2014 22:27
1,2-Dichlorobenzene	ND	0.10	20	08/05/2014 22:27
1,3-Dichlorobenzene	ND	0.10	20	08/05/2014 22:27
1,4-Dichlorobenzene	ND	0.10	20	08/05/2014 22:27
Dichlorodifluoromethane	ND	0.10	20	08/05/2014 22:27
1,1-Dichloroethane	ND	0.10	20	08/05/2014 22:27
1,2-Dichloroethane (1,2-DCA)	ND	0.080	20	08/05/2014 22:27
1,1-Dichloroethene	ND	0.10	20	08/05/2014 22:27
cis-1,2-Dichloroethene	ND	0.10	20	08/05/2014 22:27
trans-1,2-Dichloroethene	ND	0.10	20	08/05/2014 22:27
1,2-Dichloropropane	ND	0.10	20	08/05/2014 22:27
1,3-Dichloropropane	ND	0.10	20	08/05/2014 22:27
2,2-Dichloropropane	ND	0.10	20	08/05/2014 22:27
1,1-Dichloropropene	ND	0.10	20	08/05/2014 22:27

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	GC16	93602

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.10	20	08/05/2014 22:27
trans-1,3-Dichloropropene	ND	0.10	20	08/05/2014 22:27
Diisopropyl ether (DIPE)	ND	0.10	20	08/05/2014 22:27
Ethylbenzene	ND	0.10	20	08/05/2014 22:27
Ethyl tert-butyl ether (ETBE)	ND	0.10	20	08/05/2014 22:27
Freon 113	ND	2.0	20	08/05/2014 22:27
Hexachlorobutadiene	ND	0.10	20	08/05/2014 22:27
Hexachloroethane	ND	0.10	20	08/05/2014 22:27
2-Hexanone	ND	0.10	20	08/05/2014 22:27
Isopropylbenzene	ND	0.10	20	08/05/2014 22:27
4-Isopropyl toluene	<b>0.18</b>	0.10	20	08/05/2014 22:27
Methyl-t-butyl ether (MTBE)	ND	0.10	20	08/05/2014 22:27
Methylene chloride	ND	0.10	20	08/05/2014 22:27
4-Methyl-2-pentanone (MIBK)	ND	0.10	20	08/05/2014 22:27
Naphthalene	<b>1.4</b>	0.10	20	08/05/2014 22:27
n-Propyl benzene	ND	0.10	20	08/05/2014 22:27
Styrene	ND	0.10	20	08/05/2014 22:27
1,1,1,2-Tetrachloroethane	ND	0.10	20	08/05/2014 22:27
1,1,2,2-Tetrachloroethane	ND	0.10	20	08/05/2014 22:27
Tetrachloroethene	ND	0.10	20	08/05/2014 22:27
Toluene	ND	0.10	20	08/05/2014 22:27
1,2,3-Trichlorobenzene	ND	0.10	20	08/05/2014 22:27
1,2,4-Trichlorobenzene	ND	0.10	20	08/05/2014 22:27
1,1,1-Trichloroethane	ND	0.10	20	08/05/2014 22:27
1,1,2-Trichloroethane	ND	0.10	20	08/05/2014 22:27
Trichloroethene	ND	0.10	20	08/05/2014 22:27
Trichlorofluoromethane	ND	0.10	20	08/05/2014 22:27
1,2,3-Trichloropropane	ND	0.10	20	08/05/2014 22:27
1,2,4-Trimethylbenzene	<b>0.83</b>	0.10	20	08/05/2014 22:27
1,3,5-Trimethylbenzene	ND	0.10	20	08/05/2014 22:27
Vinyl Chloride	ND	0.10	20	08/05/2014 22:27
Xylenes, Total	ND	0.10	20	08/05/2014 22:27
Surrogates	REC (%)	Limits		
Dibromofluoromethane	96	70-130		08/05/2014 22:27
Toluene-d8	97	70-130		08/05/2014 22:27
4-BFB	108	70-130		08/05/2014 22:27

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SP-1,2,3,4	1408080-006A	Soil	08/01/2014	GC10	93602
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		2.0	20	08/05/2014 03:37
tert-Amyl methyl ether (TAME)	ND		0.10	20	08/05/2014 03:37
Benzene	ND		0.10	20	08/05/2014 03:37
Bromobenzene	ND		0.10	20	08/05/2014 03:37
Bromochloromethane	ND		0.10	20	08/05/2014 03:37
Bromodichloromethane	ND		0.10	20	08/05/2014 03:37
Bromoform	ND		0.10	20	08/05/2014 03:37
Bromomethane	ND		0.10	20	08/05/2014 03:37
2-Butanone (MEK)	ND		0.40	20	08/05/2014 03:37
t-Butyl alcohol (TBA)	ND		1.0	20	08/05/2014 03:37
n-Butyl benzene	<b>0.58</b>		0.10	20	08/05/2014 03:37
sec-Butyl benzene	<b>0.24</b>		0.10	20	08/05/2014 03:37
tert-Butyl benzene	ND		0.10	20	08/05/2014 03:37
Carbon Disulfide	ND		0.10	20	08/05/2014 03:37
Carbon Tetrachloride	ND		0.10	20	08/05/2014 03:37
Chlorobenzene	ND		0.10	20	08/05/2014 03:37
Chloroethane	ND		0.10	20	08/05/2014 03:37
Chloroform	ND		0.10	20	08/05/2014 03:37
Chloromethane	ND		0.10	20	08/05/2014 03:37
2-Chlorotoluene	ND		0.10	20	08/05/2014 03:37
4-Chlorotoluene	ND		0.10	20	08/05/2014 03:37
Dibromochloromethane	ND		0.10	20	08/05/2014 03:37
1,2-Dibromo-3-chloropropane	ND		0.080	20	08/05/2014 03:37
1,2-Dibromoethane (EDB)	ND		0.080	20	08/05/2014 03:37
Dibromomethane	ND		0.10	20	08/05/2014 03:37
1,2-Dichlorobenzene	ND		0.10	20	08/05/2014 03:37
1,3-Dichlorobenzene	ND		0.10	20	08/05/2014 03:37
1,4-Dichlorobenzene	ND		0.10	20	08/05/2014 03:37
Dichlorodifluoromethane	ND		0.10	20	08/05/2014 03:37
1,1-Dichloroethane	ND		0.10	20	08/05/2014 03:37
1,2-Dichloroethane (1,2-DCA)	ND		0.080	20	08/05/2014 03:37
1,1-Dichloroethene	ND		0.10	20	08/05/2014 03:37
cis-1,2-Dichloroethene	ND		0.10	20	08/05/2014 03:37
trans-1,2-Dichloroethene	ND		0.10	20	08/05/2014 03:37
1,2-Dichloropropane	ND		0.10	20	08/05/2014 03:37
1,3-Dichloropropane	ND		0.10	20	08/05/2014 03:37
2,2-Dichloropropane	ND		0.10	20	08/05/2014 03:37
1,1-Dichloropropene	ND		0.10	20	08/05/2014 03:37

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SP-1,2,3,4	1408080-006A	Soil	08/01/2014	GC10	93602

Analytes	Result	RL	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.10	20	08/05/2014 03:37
trans-1,3-Dichloropropene	ND	0.10	20	08/05/2014 03:37
Diisopropyl ether (DIPE)	ND	0.10	20	08/05/2014 03:37
Ethylbenzene	<b>0.19</b>	0.10	20	08/05/2014 03:37
Ethyl tert-butyl ether (ETBE)	ND	0.10	20	08/05/2014 03:37
Freon 113	ND	2.0	20	08/05/2014 03:37
Hexachlorobutadiene	ND	0.10	20	08/05/2014 03:37
Hexachloroethane	ND	0.10	20	08/05/2014 03:37
2-Hexanone	ND	0.10	20	08/05/2014 03:37
Isopropylbenzene	<b>0.18</b>	0.10	20	08/05/2014 03:37
4-Isopropyl toluene	ND	0.10	20	08/05/2014 03:37
Methyl-t-butyl ether (MTBE)	ND	0.10	20	08/05/2014 03:37
Methylene chloride	ND	0.10	20	08/05/2014 03:37
4-Methyl-2-pentanone (MIBK)	ND	0.10	20	08/05/2014 03:37
Naphthalene	<b>3.0</b>	0.10	20	08/05/2014 03:37
n-Propyl benzene	<b>0.42</b>	0.10	20	08/05/2014 03:37
Styrene	ND	0.10	20	08/05/2014 03:37
1,1,1,2-Tetrachloroethane	ND	0.10	20	08/05/2014 03:37
1,1,2,2-Tetrachloroethane	ND	0.10	20	08/05/2014 03:37
Tetrachloroethene	ND	0.10	20	08/05/2014 03:37
Toluene	ND	0.10	20	08/05/2014 03:37
1,2,3-Trichlorobenzene	ND	0.10	20	08/05/2014 03:37
1,2,4-Trichlorobenzene	ND	0.10	20	08/05/2014 03:37
1,1,1-Trichloroethane	ND	0.10	20	08/05/2014 03:37
1,1,2-Trichloroethane	ND	0.10	20	08/05/2014 03:37
Trichloroethene	ND	0.10	20	08/05/2014 03:37
Trichlorofluoromethane	ND	0.10	20	08/05/2014 03:37
1,2,3-Trichloropropane	ND	0.10	20	08/05/2014 03:37
1,2,4-Trimethylbenzene	<b>2.5</b>	0.10	20	08/05/2014 03:37
1,3,5-Trimethylbenzene	ND	0.10	20	08/05/2014 03:37
Vinyl Chloride	ND	0.10	20	08/05/2014 03:37
Xylenes, Total	ND	0.10	20	08/05/2014 03:37
Surrogates	REC (%)	Limits		
Dibromofluoromethane	91	70-130		08/05/2014 03:37
Toluene-d8	97	70-130		08/05/2014 03:37
4-BFB	96	70-130		08/05/2014 03:37



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/5/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	GC21	93652

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	4.0	2	08/05/2014 17:36
Acenaphthylene	ND	4.0	2	08/05/2014 17:36
Acetochlor	ND	4.0	2	08/05/2014 17:36
Anthracene	ND	4.0	2	08/05/2014 17:36
Benzidine	ND	21	2	08/05/2014 17:36
Benzo (a) anthracene	ND	4.0	2	08/05/2014 17:36
Benzo (b) fluoranthene	ND	4.0	2	08/05/2014 17:36
Benzo (k) fluoranthene	ND	4.0	2	08/05/2014 17:36
Benzo (g,h,i) perylene	ND	4.0	2	08/05/2014 17:36
Benzo (a) pyrene	ND	4.0	2	08/05/2014 17:36
Benzyl Alcohol	ND	21	2	08/05/2014 17:36
1,1-Biphenyl	ND	6.0	2	08/05/2014 17:36
Bis (2-chloroethoxy) Methane	ND	4.0	2	08/05/2014 17:36
Bis (2-chloroethyl) Ether	ND	4.0	2	08/05/2014 17:36
Bis (2-chloroisopropyl) Ether	ND	4.0	2	08/05/2014 17:36
Bis (2-ethylhexyl) Adipate	ND	4.0	2	08/05/2014 17:36
Bis (2-ethylhexyl) Phthalate	ND	4.0	2	08/05/2014 17:36
4-Bromophenyl Phenyl Ether	ND	4.0	2	08/05/2014 17:36
Butylbenzyl Phthalate	ND	4.0	2	08/05/2014 17:36
4-Chloroaniline	ND	4.0	2	08/05/2014 17:36
4-Chloro-3-methylphenol	ND	4.0	2	08/05/2014 17:36
2-Chloronaphthalene	ND	4.0	2	08/05/2014 17:36
2-Chlorophenol	ND	4.0	2	08/05/2014 17:36
4-Chlorophenyl Phenyl Ether	ND	4.0	2	08/05/2014 17:36
Chrysene	ND	4.0	2	08/05/2014 17:36
Dibenzo (a,h) anthracene	ND	4.0	2	08/05/2014 17:36
Dibenzofuran	ND	4.0	2	08/05/2014 17:36
Di-n-butyl Phthalate	ND	4.0	2	08/05/2014 17:36
1,2-Dichlorobenzene	ND	4.0	2	08/05/2014 17:36
1,3-Dichlorobenzene	ND	4.0	2	08/05/2014 17:36
1,4-Dichlorobenzene	ND	4.0	2	08/05/2014 17:36
3,3-Dichlorobenzidine	ND	8.0	2	08/05/2014 17:36
2,4-Dichlorophenol	ND	4.0	2	08/05/2014 17:36
Diethyl Phthalate	ND	4.0	2	08/05/2014 17:36
2,4-Dimethylphenol	ND	4.0	2	08/05/2014 17:36
Dimethyl Phthalate	ND	4.0	2	08/05/2014 17:36
4,6-Dinitro-2-methylphenol	ND	21	2	08/05/2014 17:36
2,4-Dinitrophenol	ND	100	2	08/05/2014 17:36

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/5/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	GC21	93652

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	4.0	2	08/05/2014 17:36
2,6-Dinitrotoluene	ND	4.0	2	08/05/2014 17:36
Di-n-octyl Phthalate	ND	8.0	2	08/05/2014 17:36
1,2-Diphenylhydrazine	ND	4.0	2	08/05/2014 17:36
Fluoranthene	ND	4.0	2	08/05/2014 17:36
Fluorene	<b>10</b>	4.0	2	08/05/2014 17:36
Hexachlorobenzene	ND	4.0	2	08/05/2014 17:36
Hexachlorobutadiene	ND	4.0	2	08/05/2014 17:36
Hexachlorocyclopentadiene	ND	21	2	08/05/2014 17:36
Hexachloroethane	ND	4.0	2	08/05/2014 17:36
Indeno (1,2,3-cd) pyrene	ND	4.0	2	08/05/2014 17:36
Isophorone	ND	4.0	2	08/05/2014 17:36
2-Methylnaphthalene	<b>56</b>	4.0	2	08/05/2014 17:36
2-Methylphenol (o-Cresol)	ND	4.0	2	08/05/2014 17:36
3 &/or 4-Methylphenol (m,p-Cresol)	ND	4.0	2	08/05/2014 17:36
Naphthalene	<b>21</b>	4.0	2	08/05/2014 17:36
2-Nitroaniline	ND	21	2	08/05/2014 17:36
3-Nitroaniline	ND	21	2	08/05/2014 17:36
4-Nitroaniline	ND	21	2	08/05/2014 17:36
Nitrobenzene	ND	4.0	2	08/05/2014 17:36
2-Nitrophenol	ND	21	2	08/05/2014 17:36
4-Nitrophenol	ND	21	2	08/05/2014 17:36
N-Nitrosodiphenylamine	ND	4.0	2	08/05/2014 17:36
N-Nitrosodi-n-propylamine	ND	4.0	2	08/05/2014 17:36
Pentachlorophenol	ND	21	2	08/05/2014 17:36
Phenanthrene	<b>14</b>	4.0	2	08/05/2014 17:36
Phenol	ND	4.0	2	08/05/2014 17:36
Pyrene	ND	4.0	2	08/05/2014 17:36
1,2,4-Trichlorobenzene	ND	4.0	2	08/05/2014 17:36
2,4,5-Trichlorophenol	ND	4.0	2	08/05/2014 17:36
2,4,6-Trichlorophenol	ND	4.0	2	08/05/2014 17:36

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/5/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	GC21	93652

Analytes	Result		RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Qualifiers</u>	<u>Limits</u>	Analytical Comments: c1	
2-Fluorophenol	119		30-130		08/05/2014 17:36
Phenol-d5	107		30-130		08/05/2014 17:36
Nitrobenzene-d5	123		30-130		08/05/2014 17:36
2-Fluorobiphenyl	100		30-130		08/05/2014 17:36
2,4,6-Tribromophenol	0	S	16-130		08/05/2014 17:36
4-Terphenyl-d14	100		30-130		08/05/2014 17:36

(Cont.)





# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/5/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	GC21	93652

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	2.0	1	08/05/2014 17:09
Acenaphthylene	ND	2.0	1	08/05/2014 17:09
Acetochlor	ND	2.0	1	08/05/2014 17:09
Anthracene	ND	2.0	1	08/05/2014 17:09
Benzidine	ND	10	1	08/05/2014 17:09
Benzo (a) anthracene	ND	2.0	1	08/05/2014 17:09
Benzo (b) fluoranthene	ND	2.0	1	08/05/2014 17:09
Benzo (k) fluoranthene	ND	2.0	1	08/05/2014 17:09
Benzo (g,h,i) perylene	ND	2.0	1	08/05/2014 17:09
Benzo (a) pyrene	ND	2.0	1	08/05/2014 17:09
Benzyl Alcohol	ND	10	1	08/05/2014 17:09
1,1-Biphenyl	ND	2.0	1	08/05/2014 17:09
Bis (2-chloroethoxy) Methane	ND	2.0	1	08/05/2014 17:09
Bis (2-chloroethyl) Ether	ND	2.0	1	08/05/2014 17:09
Bis (2-chloroisopropyl) Ether	ND	2.0	1	08/05/2014 17:09
Bis (2-ethylhexyl) Adipate	ND	2.0	1	08/05/2014 17:09
Bis (2-ethylhexyl) Phthalate	ND	2.0	1	08/05/2014 17:09
4-Bromophenyl Phenyl Ether	ND	2.0	1	08/05/2014 17:09
Butylbenzyl Phthalate	ND	2.0	1	08/05/2014 17:09
4-Chloroaniline	ND	2.0	1	08/05/2014 17:09
4-Chloro-3-methylphenol	ND	2.0	1	08/05/2014 17:09
2-Chloronaphthalene	ND	2.0	1	08/05/2014 17:09
2-Chlorophenol	ND	2.0	1	08/05/2014 17:09
4-Chlorophenyl Phenyl Ether	ND	2.0	1	08/05/2014 17:09
Chrysene	ND	2.0	1	08/05/2014 17:09
Dibenzo (a,h) anthracene	ND	2.0	1	08/05/2014 17:09
Dibenzofuran	ND	2.0	1	08/05/2014 17:09
Di-n-butyl Phthalate	ND	2.0	1	08/05/2014 17:09
1,2-Dichlorobenzene	ND	2.0	1	08/05/2014 17:09
1,3-Dichlorobenzene	ND	2.0	1	08/05/2014 17:09
1,4-Dichlorobenzene	ND	2.0	1	08/05/2014 17:09
3,3-Dichlorobenzidine	ND	4.0	1	08/05/2014 17:09
2,4-Dichlorophenol	ND	2.0	1	08/05/2014 17:09
Diethyl Phthalate	ND	2.0	1	08/05/2014 17:09
2,4-Dimethylphenol	ND	2.0	1	08/05/2014 17:09
Dimethyl Phthalate	ND	2.0	1	08/05/2014 17:09
4,6-Dinitro-2-methylphenol	ND	10	1	08/05/2014 17:09
2,4-Dinitrophenol	ND	50	1	08/05/2014 17:09

(Cont.)



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/5/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	GC21	93652

Analytes	Result	RL	DF	Date Analyzed
2,4-Dinitrotoluene	ND	2.0	1	08/05/2014 17:09
2,6-Dinitrotoluene	ND	2.0	1	08/05/2014 17:09
Di-n-octyl Phthalate	ND	4.0	1	08/05/2014 17:09
1,2-Diphenylhydrazine	ND	2.0	1	08/05/2014 17:09
Fluoranthene	ND	2.0	1	08/05/2014 17:09
Fluorene	ND	2.0	1	08/05/2014 17:09
Hexachlorobenzene	ND	2.0	1	08/05/2014 17:09
Hexachlorobutadiene	ND	2.0	1	08/05/2014 17:09
Hexachlorocyclopentadiene	ND	10	1	08/05/2014 17:09
Hexachloroethane	ND	2.0	1	08/05/2014 17:09
Indeno (1,2,3-cd) pyrene	ND	2.0	1	08/05/2014 17:09
Isophorone	ND	2.0	1	08/05/2014 17:09
2-Methylnaphthalene	ND	2.0	1	08/05/2014 17:09
2-Methylphenol (o-Cresol)	ND	2.0	1	08/05/2014 17:09
3 &/or 4-Methylphenol (m,p-Cresol)	ND	2.0	1	08/05/2014 17:09
Naphthalene	ND	2.0	1	08/05/2014 17:09
2-Nitroaniline	ND	10	1	08/05/2014 17:09
3-Nitroaniline	ND	10	1	08/05/2014 17:09
4-Nitroaniline	ND	10	1	08/05/2014 17:09
Nitrobenzene	ND	2.0	1	08/05/2014 17:09
2-Nitrophenol	ND	10	1	08/05/2014 17:09
4-Nitrophenol	ND	10	1	08/05/2014 17:09
N-Nitrosodiphenylamine	ND	2.0	1	08/05/2014 17:09
N-Nitrosodi-n-propylamine	ND	2.0	1	08/05/2014 17:09
Pentachlorophenol	ND	10	1	08/05/2014 17:09
Phenanthrene	ND	2.0	1	08/05/2014 17:09
Phenol	ND	2.0	1	08/05/2014 17:09
Pyrene	ND	2.0	1	08/05/2014 17:09
1,2,4-Trichlorobenzene	ND	2.0	1	08/05/2014 17:09
2,4,5-Trichlorophenol	ND	2.0	1	08/05/2014 17:09
2,4,6-Trichlorophenol	ND	2.0	1	08/05/2014 17:09

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/5/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	GC21	93652

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a4	
2-Fluorophenol	122	30-130		08/05/2014 17:09
Phenol-d5	113	30-130		08/05/2014 17:09
Nitrobenzene-d5	113	30-130		08/05/2014 17:09
2-Fluorobiphenyl	101	30-130		08/05/2014 17:09
2,4,6-Tribromophenol	48	16-130		08/05/2014 17:09
4-Terphenyl-d14	106	30-130		08/05/2014 17:09



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	GC7	93601

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	3100	200	200	08/04/2014 23:56
MTBE	---	10	200	08/04/2014 23:56
Benzene	---	1.0	200	08/04/2014 23:56
Toluene	---	1.0	200	08/04/2014 23:56
Ethylbenzene	---	1.0	200	08/04/2014 23:56
Xylenes	---	1.0	200	08/04/2014 23:56
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7,d9	
aaa-TFT_2	96	70-130		08/04/2014 23:56

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	GC7	93601

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	200	20	20	08/05/2014 01:55
MTBE	---	1.0	20	08/05/2014 01:55
Benzene	---	0.10	20	08/05/2014 01:55
Toluene	---	0.10	20	08/05/2014 01:55
Ethylbenzene	---	0.10	20	08/05/2014 01:55
Xylenes	---	0.10	20	08/05/2014 01:55
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
aaa-TFT_2	88	70-130		08/05/2014 01:55

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SW-3N	1408080-003A	Soil	08/01/2014	GC7	93601

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	08/05/2014 04:25
MTBE	---	0.050	1	08/05/2014 04:25
Benzene	---	0.0050	1	08/05/2014 04:25
Toluene	---	0.0050	1	08/05/2014 04:25
Ethylbenzene	---	0.0050	1	08/05/2014 04:25
Xylenes	---	0.0050	1	08/05/2014 04:25
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	109	70-130		08/05/2014 04:25

(Cont.)



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SW-3E	1408080-004A	Soil	08/01/2014	GC7	93601

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	950	20	20	08/05/2014 02:25
MTBE	---	1.0	20	08/05/2014 02:25
Benzene	---	0.10	20	08/05/2014 02:25
Toluene	---	0.10	20	08/05/2014 02:25
Ethylbenzene	---	0.10	20	08/05/2014 02:25
Xylenes	---	0.10	20	08/05/2014 02:25
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
aaa-TFT_2	85	70-130		08/05/2014 02:25

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SW-1W	1408080-005A	Soil	08/01/2014	GC7	93601

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	68	1.0	1	08/05/2014 04:55
MTBE	---	0.050	1	08/05/2014 04:55
Benzene	---	0.0050	1	08/05/2014 04:55
Toluene	---	0.0050	1	08/05/2014 04:55
Ethylbenzene	---	0.0050	1	08/05/2014 04:55
Xylenes	---	0.0050	1	08/05/2014 04:55
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7,d9	
2-Fluorotoluene	112	70-130		08/05/2014 04:55

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SP-1,2,3,4	1408080-006A	Soil	08/01/2014	GC19	93601

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	350	33	33	08/05/2014 16:08
MTBE	---	1.7	33	08/05/2014 16:08
Benzene	---	0.17	33	08/05/2014 16:08
Toluene	---	0.17	33	08/05/2014 16:08
Ethylbenzene	---	0.17	33	08/05/2014 16:08
Xylenes	---	0.17	33	08/05/2014 16:08
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
2-Fluorotoluene	86	70-130		08/05/2014 16:08



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**Date Received:** 8/4/14 16:56

## RCI ( Reactivity , Corrosivity , Ignitability )

<b>Date Prepared:</b> 8/4/14		<b>Extraction Method:</b> SW9045D			
<b>Unit:</b> ±, pH units @ 25°C		<b>Analytical Method:</b> SW9045D			
<b>Client ID</b>	<b>Lab ID</b>	<b>Matrix/ExtType</b>	<b>Date Collected</b>	<b>Instrument</b>	<b>Batch ID</b>
SP-1,2,3,4	1408080-006A	Soil	08/01/2014	WetChem	93629

<u>Analytes</u>	<u>Result</u>	<u>Accuracy</u>	<u>DF</u>	<u>Date Analyzed</u>
pH	7.76	0.1	1	08/04/2014 21:08

<b>Date Prepared:</b> 8/5/14		<b>Extraction Method:</b> SWchpt7			
<b>Unit:</b> pos/neg		<b>Analytical Method:</b> SWchpt7_CN			
<b>Client ID</b>	<b>Lab ID</b>	<b>Matrix/ExtType</b>	<b>Date Collected</b>	<b>Instrument</b>	<b>Batch ID</b>
SP-1,2,3,4	1408080-006A	Soil	08/01/2014	WetChem	93660

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Reactive Cyanide	neg	NA	1	08/05/2014 16:00

<b>Date Prepared:</b> 8/4/14		<b>Extraction Method:</b> SWChpt7			
<b>Unit:</b> pos/neg		<b>Analytical Method:</b> SWChpt7_Ign			
<b>Client ID</b>	<b>Lab ID</b>	<b>Matrix/ExtType</b>	<b>Date Collected</b>	<b>Instrument</b>	<b>Batch ID</b>
SP-1,2,3,4	1408080-006A	Soil	08/01/2014	WetChem	93622

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Ignitability	neg	NA	1	08/04/2014 19:55

<b>Date Prepared:</b> 8/5/14		<b>Extraction Method:</b> SWchpt7			
<b>Unit:</b> pos/neg		<b>Analytical Method:</b> SWchpt7_S			
<b>Client ID</b>	<b>Lab ID</b>	<b>Matrix/ExtType</b>	<b>Date Collected</b>	<b>Instrument</b>	<b>Batch ID</b>
SP-1,2,3,4	1408080-006A	Soil	08/01/2014	WetChem	93660

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Reactive Sulfide	neg	NA	1	08/05/2014 16:00



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

### LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil/TOTAL	08/01/2014	ICP-MS2	93587

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	08/06/2014 03:27
Chromium	44	0.50	1	08/06/2014 03:27
Lead	11	0.50	1	08/06/2014 03:27
Nickel	45	0.50	1	08/06/2014 03:27
Zinc	69	5.0	1	08/06/2014 03:27
Surrogates	REC (%)	Limits		
Tb 350.917	128	70-130		08/06/2014 03:27

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil/TOTAL	08/01/2014	ICP-MS1	93587

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	08/06/2014 09:37
Chromium	48	0.50	1	08/06/2014 09:37
Lead	8.1	0.50	1	08/06/2014 09:37
Nickel	47	0.50	1	08/06/2014 09:37
Zinc	57	5.0	1	08/06/2014 09:37
Surrogates	REC (%)	Limits		
Tb 350.917	104	70-130		08/06/2014 09:37

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SP-1,2,3,4	1408080-006A	Soil/TOTAL	08/01/2014	ICP-MS2	93587

Analytes	Result	RL	DF	Date Analyzed
Cadmium	0.27	0.25	1	08/06/2014 03:39
Chromium	53	0.50	1	08/06/2014 03:39
Lead	12	0.50	1	08/06/2014 03:39
Nickel	72	0.50	1	08/06/2014 03:39
Zinc	98	5.0	1	08/06/2014 03:39
Surrogates	REC (%)	Limits		
Tb 350.917	118	70-130		08/06/2014 03:39



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-SB1	1408080-001A	Soil	08/01/2014	GC9a	93599

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	18,000	50	50	08/06/2014 20:42
TPH-Motor Oil (C18-C36)	8600	250	50	08/06/2014 20:42

Surrogates	REC (%)	Limits	Analytical Comments: e1	Date Analyzed
C9	118	70-130		08/06/2014 20:42

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST3-NBI	1408080-002A	Soil	08/01/2014	GC9b	93599

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	900	5.0	5	08/06/2014 08:37
TPH-Motor Oil (C18-C36)	670	25	5	08/06/2014 08:37

Surrogates	REC (%)	Limits	Analytical Comments: e1,e7	Date Analyzed
C9	107	70-130		08/06/2014 08:37

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SW-3N	1408080-003A	Soil	08/01/2014	GC6A	93599

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	ND	1.0	1	08/05/2014 15:05
TPH-Motor Oil (C18-C36)	ND	5.0	1	08/05/2014 15:05

Surrogates	REC (%)	Limits	Date Analyzed
C9	93	70-130	08/05/2014 15:05

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SW-3E	1408080-004A	Soil	08/01/2014	GC9a	93599

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	11,000	200	200	08/06/2014 21:53
TPH-Motor Oil (C18-C36)	5500	1000	200	08/06/2014 21:53

Surrogates	REC (%)	Limits	Analytical Comments: e1	Date Analyzed
C9	125	70-130		08/06/2014 21:53

(Cont.)





# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408080  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

## Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SW-1W	1408080-005A	Soil	08/01/2014	GC9b	93599

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	700	20	20	08/07/2014 08:40
TPH-Motor Oil (C18-C36)	500	100	20	08/07/2014 08:40

Surrogates	REC (%)	Limits	Analytical Comments: e1,e7
C9	104	70-130	08/07/2014 08:40

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SP-1,2,3,4	1408080-006A	Soil	08/01/2014	GC9a	93599

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	2400	20	20	08/06/2014 23:05
TPH-Motor Oil (C18-C36)	1200	100	20	08/06/2014 23:05

Surrogates	REC (%)	Limits	Analytical Comments: e1
C9	109	70-130	08/06/2014 23:05



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/5/14  
**Date Analyzed:** 8/5/14  
**Instrument:** O&G  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93642  
**Extraction Method:** SM5520E/F  
**Analytical Method:** SM5520E/F  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93642  
 1408076-001AMS/MSD

### QC Summary Report for SM5520E/F

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
POG	ND	1820	50	2000	-	90.9	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
POG	1860	1760	2000	ND	92.8	87.8	70-130	5.54	30



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/4/14 - 8/5/14  
**Instrument:** GC5A  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93614  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-93614  
 1408022-004AMS/MSD

### QC Summary Report for SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.173	0.050	0.15	-	115	70-130
PCBs, total	ND	-	0.050	-	-	-	-

**Surrogate Recovery**

Decachlorobiphenyl	0.0519	0.0522		0.050	104	104	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	0.146	0.169	0.15	ND	97.5	112	70-130	14.2	30

**Surrogate Recovery**

Decachlorobiphenyl	0.0554	0.0605	0.050		111	121	70-130	8.92	30
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## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/5/14  
**Date Analyzed:** 8/5/14  
**Instrument:** GC15  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93634  
**Extraction Method:** SW8151A  
**Analytical Method:** SW8151A  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-93634  
 1408080-001AMS/MSD

### QC Summary Report for SW8151A

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Pentachlorophenol (PCP)	ND	0.0870	0.050	0.10	-	87	60-140
<b>Surrogate Recovery</b>							
DCAA	0.0960	0.0956		0.10	96	96	60-140

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Pentachlorophenol (PCP)	NR	NR	0	ND<1	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
DCAA	NR	NR	0		NR	NR	-	NR	



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/4/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93602

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0381	0.0050	0.050	-	76.2	61-115
Benzene	ND	0.0482	0.0050	0.050	-	96.4	75-126
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.176	0.050	0.20	-	87.9	63-125
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0476	0.0050	0.050	-	95.3	80-118
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0446	0.0040	0.050	-	89.1	74-121
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0431	0.0040	0.050	-	86.2	68-122
1,1-Dichloroethene	ND	0.0432	0.0050	0.050	-	86.4	65-138
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



# Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/4/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93602  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93602

## QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0439	0.0050	0.050	-	87.9	68-117
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0421	0.0050	0.050	-	84.2	67-116
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0417	0.0050	0.050	-	83.3	66-118
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0508	0.0050	0.050	-	102	84-129
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0468	0.0050	0.050	-	93.6	82-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

### Surrogate Recovery

Dibromofluoromethane	0.113	0.160		0.18	90	91	80-120
Toluene-d8	0.125	0.167		0.18	100	96	80-120
4-BFB	0.0120	0.0163		0.018	96	93	80-120



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/5/14  
**Date Analyzed:** 8/5/14  
**Instrument:** GC21  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93652  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93652  
 1408080-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	4.07	0.25	5	-	81.3	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.25	-	-	-	-
4-Chloro-3-methylphenol	ND	5.17	0.25	5	-	103	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	5.01	0.25	5	-	100	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	4.03	0.25	5	-	80.6	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	4.72	0.25	5	-	94.3	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/5/14  
**Date Analyzed:** 8/5/14  
**Instrument:** GC21  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93652  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93652  
 1408080-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 &/or 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	3.75	1.3	5	-	75	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	4.44	0.25	5	-	88.8	30-130
Pentachlorophenol	ND	3.63	1.3	5	-	72.6	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	4.82	0.25	5	-	96.5	30-130
Pyrene	ND	4.53	0.25	5	-	90.7	30-130
1,2,4-Trichlorobenzene	ND	4.67	0.25	5	-	93.3	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

#### Surrogate Recovery

2-Fluorophenol	5.15	4.67		5	103	93	30-130
Phenol-d5	4.93	4.48		5	99	90	30-130
Nitrobenzene-d5	5.24	4.87		5	105	97	30-130
2-Fluorobiphenyl	4.29	4.03		5	86	81	30-130
2,4,6-Tribromophenol	2.15	2.38		5	43	48	16-130
4-Terphenyl-d14	4.80	4.62		5	96	92	30-130

(Cont.)





## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/5/14  
**Date Analyzed:** 8/5/14  
**Instrument:** GC21  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93652  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93652  
 1408080-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	NR	NR	0	ND<4	NR	NR	-	NR	
4-Chloro-3-methylphenol	NR	NR	0	ND<4	NR	NR	-	NR	
2-Chlorophenol	NR	NR	0	ND<4	NR	NR	-	NR	
1,4-Dichlorobenzene	NR	NR	0	ND<4	NR	NR	-	NR	
2,4-Dinitrotoluene	NR	NR	0	ND<4	NR	NR	-	NR	
4-Nitrophenol	NR	NR	0	ND<21	NR	NR	-	NR	
N-Nitrosodi-n-propylamine	NR	NR	0	ND<4	NR	NR	-	NR	
Pentachlorophenol	NR	NR	0	ND<21	NR	NR	-	NR	
Phenol	NR	NR	0	ND<4	NR	NR	-	NR	
Pyrene	NR	NR	0	ND<4	NR	NR	-	NR	
1,2,4-Trichlorobenzene	NR	NR	0	ND<4	NR	NR	-	NR	

**Surrogate Recovery**

2-Fluorophenol	NR	NR	0		NR	NR	-	NR	
Phenol-d5	NR	NR	0		NR	NR	-	NR	
Nitrobenzene-d5	NR	NR	0		NR	NR	-	NR	
2-Fluorobiphenyl	NR	NR	0		NR	NR	-	NR	
2,4,6-Tribromophenol	NR	NR	0		NR	NR	-	NR	
4-Terphenyl-d14	NR	NR	0		NR	NR	-	NR	



# Quality Control Report

**Client:** SCA Environmental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/5/14  
**Instrument:** GC19  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93601  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93601  
 1408080-001AMS/MSD

## QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.569	0.40	0.60	-	94.8	70-130
MTBE	ND	0.0975	0.050	0.10	-	97.5	70-130
Benzene	ND	0.113	0.0050	0.10	-	113	70-130
Toluene	ND	0.112	0.0050	0.10	-	112	70-130
Ethylbenzene	ND	0.111	0.0050	0.10	-	111	70-130
Xylenes	ND	0.348	0.0050	0.30	-	116	70-130

### Surrogate Recovery

2-Fluorotoluene	0.112	0.110		0.10	112	110	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH(btex)	NR	NR	0	390	NR	NR	-	NR	
MTBE	NR	NR	0	ND<10	NR	NR	-	NR	
Benzene	NR	NR	0	ND<1	NR	NR	-	NR	
Toluene	NR	NR	0	ND<1	NR	NR	-	NR	
Ethylbenzene	NR	NR	0	4.5	NR	NR	-	NR	
Xylenes	NR	NR	0	5.4	NR	NR	-	NR	

### Surrogate Recovery

2-Fluorotoluene	NR	NR	0		NR	NR	-	NR	
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# Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/4/14  
**Instrument:** WetChem  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93622  
**Extraction Method:** SWChpt7  
**Analytical Method:** SWChpt7\_Ign  
**Unit:** pos/neg

## QC Summary Report for SWChpt7\_Ign

SampleID	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1407B20-001A	neg	1	neg	1	N/A	N/A

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/4/14  
**Instrument:** WetChem  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93629  
**Extraction Method:** SW9045D  
**Analytical Method:** SW9045D  
**Unit:** ±, pH units @ 25°C

## QC Summary Report for pH

SampleID	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	Precision	Acceptance Criteria
1408080-006A	7.76	1	7.77	1	0.01	0.1
1408094-005A	8.26	1	8.25	1	0.01	0.1



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/5/14  
**Instrument:** ICP-MS2  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93587  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93587  
 1408049-001AMS/MSD

### QC Summary Report for SW6020

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Cadmium	ND	54.0	0.25	50	-	108	75-125
Chromium	ND	54.4	0.50	50	-	109	75-125
Lead	ND	54.6	0.50	50	-	109	75-125
Nickel	ND	55.8	0.50	50	-	112	75-125
Zinc	ND	559	5.0	500	-	112	75-125

**Surrogate Recovery**

Tb 350.917	572	544		500	114	109	70-130
------------	-----	-----	--	-----	-----	-----	--------

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Cadmium	62.6	63.4	50	0.3565	125	126,F1	75-125	1.25	20
Chromium	108	114	50	46.77	122	133,F1	75-125	4.97	20
Lead	71.0	71.9	50	7.547	127,F1	129,F1	75-125	1.34	20
Nickel	116	123	50	49.90	132,F1	147,F1	75-125	6.28	20
Zinc	698	696	500	60.65	127,F1	127,F1	75-125	0	20

**Surrogate Recovery**

Tb 350.917	624	626	500		125	125	70-130	0	20
------------	-----	-----	-----	--	-----	-----	--------	---	----



# Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/5/14  
**Date Analyzed:** 8/5/14  
**Instrument:** WetChem  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93660  
**Extraction Method:** SWchpt7  
**Analytical Method:** SWchpt7\_CN  
**Unit:** pos/neg

## QC Summary Report for SWchpt7\_CN (Reactive CN)

SampleID	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1407B20-001A	neg	1	neg	1	N/A	N/A

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/5/14  
**Date Analyzed:** 8/5/14  
**Instrument:** WetChem  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93660  
**Extraction Method:** SWchpt7  
**Analytical Method:** SWchpt7\_S  
**Unit:** pos/neg

## QC Summary Report for SWchpt7\_S (Reactive S)

SampleID	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1407B20-001A	neg	1	neg	1	N/A	N/A



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/5/14  
**Instrument:** GC9b  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408080  
**BatchID:** 93599  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93599  
 1408076-001AMS/MSD

### QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	39.4	1.0	40	-	98.6	70-130
<b>Surrogate Recovery</b>							
C9	23.8	23.4		25	95	94	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR	0	22	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
C9	NR	NR	0		NR	NR	-	NR	



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1408080

ClientCode: SCAO

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  EQUIS   
  Email   
  HardCopy   
  ThirdParty   
  J-flag

**Report to:**

Glenn Young  
SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612  
(510) 645-6200    FAX: (510) 839- 6200

Email: gyoung@sca-enviro.com  
cc/3rd Party:  
PO:  
ProjectNo: #11167 Task4; HACA UST Services

**Bill to:**

Accounts Payable  
SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612  
emuisse@sca-ic.com

**Requested TAT:**

**2 days**

**Date Received: 08/04/2014**

**Date Printed: 08/04/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1408080-001	UST3-SB1	Soil	8/1/2014	<input type="checkbox"/>	A	A	A	A	A	A	A	A					
1408080-002	UST3-NBI	Soil	8/1/2014	<input type="checkbox"/>	A	A	A	A	A	A	A	A					
1408080-003	SW-3N	Soil	8/1/2014	<input type="checkbox"/>							A						
1408080-004	SW-3E	Soil	8/1/2014	<input type="checkbox"/>							A						
1408080-005	SW-1W	Soil	8/1/2014	<input type="checkbox"/>							A						
1408080-006	SP-1,2,3,4	Soil	8/1/2014	<input type="checkbox"/>				A			A	A	A				

**Test Legend:**

1	5520E_S	2	8082A_PCB_S	3	8151A_S	4	8260B_S	5	8270D_S
6	G-MBTX_S	7	LUFTMS_S	8	ReactS_S	9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A contain testgroup.

**Prepared by: Jena Alfaro**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** SCA ENVIROMENTAL, INC.  
**Project:** #11167 Task4; HACA UST Services  
**Comments:**

**QC Level:** LEVEL 2  
**Client Contact:** Glenn Young  
**Contact's Email:** gyoung@sca-enviro.com

**Work Order:** 1408080  
**Date Received:** 8/4/2014

WaterTrax     WriteOn     EDF     Excel     Fax     Email     HardCopy     ThirdParty     J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut		
1408080-001A	UST3-SB1	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube	<input type="checkbox"/>	8/1/2014	2 days		<input type="checkbox"/>			
			SW6020 (LUFT)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SW8151A (Chlorinated Herbicides) <Pentachlorophenol (PCP)_1>			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SW8082 (PCBs Only)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SM5520B (O&G w/o S.G. Clean-Up)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
1408080-002A	UST3-NBI	Soil	SW6020 (LUFT)	1	Stainless Tube	<input type="checkbox"/>	8/1/2014	2 days		<input type="checkbox"/>			
			Multi-Range TPH(g,d,mo)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SW8151A (Chlorinated Herbicides) <Pentachlorophenol (PCP)_1>			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SW8082 (PCBs Only)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
			SM5520B (O&G w/o S.G. Clean-Up)			<input type="checkbox"/>						2 days	<input type="checkbox"/>
1408080-003A	SW-3N	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube	<input type="checkbox"/>	8/1/2014	2 days		<input type="checkbox"/>			
1408080-004A	SW-3E	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube	<input type="checkbox"/>	8/1/2014	2 days		<input type="checkbox"/>			

**\* NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

**Bottle Legend:**

8OZ GJ = 8oz Glass Jar  
 Stainless Tube =





## WORK ORDER SUMMARY

**Client Name:** SCA ENVIROMENTAL, INC.  
**Project:** #11167 Task4; HACA UST Services  
**Comments:**

**QC Level:** LEVEL 2  
**Client Contact:** Glenn Young  
**Contact's Email:** gyoung@sca-enviro.com

**Work Order:** 1408080  
**Date Received:** 8/4/2014

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1408080-005A	SW-1W	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube	<input type="checkbox"/>	8/1/2014	2 days		<input type="checkbox"/>	
1408080-006A	SP-1,2,3,4	Soil	Multi-Range TPH(g,d,mo)	4	8OZ GJ	<input type="checkbox"/>	8/1/2014	2 days		<input type="checkbox"/>	
			SW6020 (LUFT)			<input type="checkbox"/>		2 days		<input type="checkbox"/>	
			Reactivity, Corrosivity & Ignitability			<input type="checkbox"/>		2 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		2 days		<input type="checkbox"/>	

**\* NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

**Bottle Legend:**

8OZ GJ = 8oz Glass Jar  
 Stainless Tube =

PROJECT NAME: HACA UST Services

PROJECT NO.: 11167 Task4

LAB: McCampbell

PROJECT CONTACT: Glenn Young

TURNAROUND: 48 hour TAT

SEND REPORTS/INVOICES TO:

Glenn Young

Email:

gyoung@sca-enviro.com

SAMPLED BY: GSY

ANALYSIS REQUESTED

TPHg  
TPHd & TPHmo  
TOG  
VOCs (8260) including BTEX, MTBE, TAME,  
ETBE, DIPE, TBA & HVOCs  
LUFT Metals  
SVOCs (8270) including PCB, PCP, PNAs, Creosote

RCI

LABORATORY I.D. NUMBER	SCA SAMPLE I.D.	MATRIX				CONTAINERS					PRESERVATIVE					SAMPLE COLLECTION INFORMATION		NOTES	TPHg	TPHd & TPHmo	TOG	VOCs (8260) including BTEX, MTBE, TAME, ETBE, DIPE, TBA & HVOCs	LUFT Metals	SVOCs (8270) including PCB, PCP, PNAs, Creosote	RCI									
		WATER	SOIL	AIR	SLUDGE	VOA	LITER	POLY	TUBE	GLASS JAR	ICE	HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	OTHER	NONE	DATE (MM/DD/YY)									TIME								
	UST 3-SBI	x						x								08.01.2014		x	x	x	x	x	x											
	UST 3-NBI	x						x								08.01.2014		x	x	x	x	x	x											
	SW-3N	X						X						X		8.1.14		X	X															
	SW-3E	X						X						X		8.1.14		X	X															
	SW-1W	X						X						X		8.1.14		X	X															
	SP-1	<del>X</del>						<del>X</del>						<del>X</del>		8.1.14		<del>X</del>	<del>X</del>															
	SP-2	<del>X</del>						<del>X</del>						<del>X</del>				<del>X</del>	<del>X</del>															
	SP-3	<del>X</del>						<del>X</del>						<del>X</del>				<del>X</del>	<del>X</del>															
	SP-4	<del>X</del>						<del>X</del>						<del>X</del>				<del>X</del>	<del>X</del>															

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE/TIME 8/9/14	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE/TIME 8/9/14
RELINQUISHED BY: (Signature) <i>[Signature]</i>	DATE/TIME 8/9/14	RECEIVED BY: (Signature) <i>[Signature]</i>	DATE/TIME 8/9/14
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

COMMENTS & NOTES:

1 - Generate 4:1 composite prior to analyses

ICE / I°  
GOOD CONDITION  
HEAD SPACE ABSENT  
DECHLORINATED IN LAB  
PRESERVATION

400

APPROPRIATE CONTAINERS PRESERVED IN LAB  
VOAS | O & G | METALS | OTHER



### Sample Receipt Checklist

Client Name: **SCA Enviromental, Inc.** Date and Time Received: **8/4/2014 4:56:32 PM**  
 Project Name: **#11167 Task4; HACA UST Services** LogIn Reviewed by: **Jena Alfaro**  
 WorkOrder №: **1408080** Matrix: Soil Carrier: Rob Pringle (MAI Courier)

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No   
 Container/Temp Blank temperature Cooler Temp: 4°C NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: pH<2; 522: pH<4)? Yes  No  NA   
 Samples Received on Ice? Yes  No

(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1408080 A

**Report Created for:** SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612

**Project Contact:** Glenn Young

**Project P.O.:**

**Project Name:** #11167 Task4; HACA UST Services

**Project Received:** 08/04/2014

Analytical Report reviewed & approved for release on 08/11/2014 by:

*Question about  
your data?*

[Click here to email  
McC Campbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**WorkOrder:** 1408080

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

### Analytical Qualifiers

S	spike recovery outside accepted recovery limits
a3	sample diluted due to high organic content.
a4	the reporting limits were raised due to the sample's matrix prohibiting a full volume extraction.
c1	surrogate recovery outside of the control limits due to the dilution of the sample.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
d9	no recognizable pattern
e1	unmodified or weakly modified diesel is significant
e7	oil range compounds are significant
h4	sulfuric acid permanganate (EPA 3665) cleanup

### Quality Control Qualifiers

F1	MS/MSD recovery and/or RPD was out of acceptance criteria; LCS validated the prep batch.
----	--



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/6/14

**WorkOrder:** 1408080  
**Extraction Method:** CA Title 22  
**Analytical Method:** SW6010B  
**Unit:** mg/L

## Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SP-1,2,3,4	1408080-006A	Soil/WET	08/01/2014	ICP-JY	93716

Analytes	Result	RL	DF	Date Analyzed
Chromium	0.20	0.050	1	08/11/2014 15:42



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/4/14 16:56  
**Date Prepared:** 8/6/14

**WorkOrder:** 1408080  
**Extraction Method:** SW1311/SW3050B  
**Analytical Method:** SW6010B  
**Unit:** mg/L

## Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
SP-1,2,3,4	1408080-006A	Soil/TCLP	08/01/2014	ICP-JY	93722

Analytes	Result	RL	DF	Date Analyzed
Chromium	ND	0.050	1	08/08/2014 14:10



## Quality Control Report

<b>Client:</b>	SCA Enviromental, Inc.	<b>WorkOrder:</b>	1408080
<b>Date Prepared:</b>	8/6/14	<b>BatchID:</b>	93716
<b>Date Analyzed:</b>	8/11/14	<b>Extraction Method:</b>	CA Title 22
<b>Instrument:</b>	ICP-JY	<b>Analytical Method:</b>	SW6010B
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/L
<b>Project:</b>	#11167 Task4; HACA UST Services	<b>Sample ID:</b>	MB/LCS-93716 1407648-001AMS/MSD

### QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Chromium	ND	1.12	0.050	1	-	112	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Chromium	1.33	1.28	1	0.1743	115	111	70-130	3.22	30





## Quality Control Report

<b>Client:</b>	SCA Enviromental, Inc.	<b>WorkOrder:</b>	1408080
<b>Date Prepared:</b>	8/6/14	<b>BatchID:</b>	93722
<b>Date Analyzed:</b>	8/8/14	<b>Extraction Method:</b>	SW1311/SW3050B
<b>Instrument:</b>	ICP-JY	<b>Analytical Method:</b>	SW6010B
<b>Matrix:</b>	Soil	<b>Unit:</b>	mg/L
<b>Project:</b>	#11167 Task4; HACA UST Services	<b>Sample ID:</b>	MB/LCS-93722 1408080-006AMS/MSD

### QC Summary Report for SW6010B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Chromium	ND	1.02	0.050	1	-	102	75-125

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Chromium	1.02	1.04	1	ND	102	104	70-130	2.03	30



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1408080 **A** ClientCode: SCAO

WaterTrax  
  WriteOn  
  EDF  
  Excel  
  Fax  
 Email  
  HardCopy  
  ThirdParty  
  J-flag

**Report to:**  
 Glenn Young  
 SCA Enviromental, Inc.  
 334 19th Street  
 Oakland, CA 94612  
 (510) 645-6200 FAX: (510) 839- 6200

Email: gyoung@sca-enviro.com  
 cc/3rd Party:  
 PO:  
 ProjectNo: #11167 Task4; HACA UST Services

**Bill to:**  
 Accounts Payable  
 SCA Enviromental, Inc.  
 334 19th Street  
 Oakland, CA 94612  
 emuise@sca-ic.com

**Requested TAT: 2 days**  
**Date Received: 08/04/2014**  
**Date Add-On: 08/06/2014**  
**Date Printed: 08/12/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1408080-006	SP-1,2,3,4	Soil	8/1/2014	<input type="checkbox"/>	A	A											

**Test Legend:**

1	STLC_METALS_S	2	TCLP_METALS_S	3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Jena Alfaro**

**Add-On Prepared By: Jena Alfaro**

**Comments:** STLC and TCLP Cr added to 006 1D TAT 8/6/14

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** SCA ENVIROMENTAL, INC.

**QC Level:** LEVEL 2

**Work Order:** 1408080

**Project:** #11167 Task4; HACA UST Services

**Client Contact:** Glenn Young

**Date Received:** 8/4/2014

**Comments:** STLC and TCLP Cr added to 006 1D TAT 8/6/14

**Contact's Email:** [gyoung@sca-enviro.com](mailto:gyoung@sca-enviro.com)

**Date Add-On:** 8/6/2014

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1408080-006A	SP-1,2,3,4	Soil	SW6010B (Metals) (TCLP) <Chromium>	4	8OZ GJ	8/1/2014	1 day*		<input type="checkbox"/>	
			SW6010B (Metals) (STLC) <Chromium>				2 days*	<input type="checkbox"/>		

**\* NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

**Bottle Legend:**

8OZ GJ = 8oz Glass Jar

1408080

**RUSH**

CHAIN OF CUSTODY

PROJECT NAME: HACA UST Services

PROJECT NO.: 11167 Task4

LAB: McCampbell

PROJECT CONTACT: Glenn Young

TURNAROUND: 48 hour TAT

SEND REPORTS/INVOICES TO:

Glenn Young

Email:

gyoung@sca-enviro.com

SAMPLED BY: GSY

ANALYSIS REQUESTED

LABORATORY I.D. NUMBER	SCA SAMPLE I.D.	MATRIX				CONTAINERS					PRESERVATIVE					SAMPLE COLLECTION INFORMATION		NOTES	TPHg	TPHd & TPHmc	TOG	VOCs (8260) including BTEX, MTBE, TAME, ETBE, DIPE, TBA & HVOCs	LUFT Metals	SVOCs (8270) including PCB, PCP, PNAS, Creosote	RCI												
		WATER	SOIL	AIR	SLUDGE	VOA	LITER	POLY	TUBE	GLASS JAR	ICE	HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	OTHER	NONE	DATE (MM/DD/YY)									TIME											
	UST 3-SB	x						x									08.01.2014		x	x	x	x	x	x													
	UST 3-NB	x						x									08.01.2014		x	x	x	x	x	x													
	SW-3N		x													x	8.1.14			x																	
	SW-3E		x													x	8.1.14			x																	
	SW-1W		x													x	8.1.14			x																	
	SP-1		X													X	8.1.14			X																	
	SP-2		X													X				X																	
	SP-3		X													X				X																	
	SP-4		X													X				X																	

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>[Signature]</i>	8/9/14	<i>[Signature]</i>	8/9/14
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
<i>[Signature]</i>	8/9/14	<i>[Signature]</i>	8/9/14
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

COMMENTS & NOTES:

1 - Generate 4:1 composite prior to analyses

ICE 1: 400

GOOD CONDITION  
HEAD SPACE ABSENT  
DECHLORINATED IN LAB  
PRESERVATION

APPROPRIATE CONTAINERS PRESERVED IN LAB  
VOAS | O & G | METALS | OTHER



# McC Campbell Analytical, Inc.

"When Quality Counts"

## Analytical Report

**WorkOrder:** 1408022

**Report Created for:** SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612

**Project Contact:** Glenn Young

**Project P.O.:**

**Project Name:** #11167 Task4; HACA UST Services

**Project Received:** 08/01/2014

Analytical Report reviewed & approved for release on 08/05/2014 by:

*Question about  
your data?*

[Click here to email  
McC Campbell](#)

Angela Rydelius,  
Laboratory Manager

***The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.***





## Glossary of Terms & Qualifier Definitions

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**WorkOrder:** 1408022

### Glossary Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

### Analytical Qualifiers

S	spike recovery outside accepted recovery limits
A3	sample diluted due to high organic content.
a4	the reporting limits were raised due to the sample's matrix prohibiting a full volume extraction.
d7	strongly aged gasoline or diesel range compounds are significant in the TPH(g) chromatogram
e1	unmodified or weakly modified diesel is significant
e2	diesel range compounds are significant; no recognizable pattern
e3	aged diesel is significant
e7	oil range compounds are significant
h4	sulfuric acid permanganate (EPA 3665) cleanup



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/4/14

**WorkOrder:** 1408022  
**Extraction Method:** SM5520E/F  
**Analytical Method:** SM5520E/F  
**Unit:** mg/Kg

### Petroleum Oil & Grease with Silica Gel Clean-Up

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil	07/31/2014	O&G	93576
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
POG	1300		50	1	08/04/2014 12:50

UST1-NB1	1408022-002A	Soil	07/31/2014	O&G	93576
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
POG	ND		50	1	08/04/2014 12:35

UST2-SB1	1408022-003A	Soil	07/31/2014	O&G	93576
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
POG	480		50	1	08/04/2014 12:55

UST2-NB1	1408022-004A	Soil	07/31/2014	O&G	93576
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
POG	300		50	1	08/04/2014 13:00



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14-8/5/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil	07/31/2014	GC5A	93498

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	08/04/2014 17:06
Aroclor1221	ND	0.050	1	08/04/2014 17:06
Aroclor1232	ND	0.050	1	08/04/2014 17:06
Aroclor1242	ND	0.050	1	08/04/2014 17:06
Aroclor1248	ND	0.050	1	08/04/2014 17:06
Aroclor1254	ND	0.050	1	08/04/2014 17:06
Aroclor1260	ND	0.050	1	08/04/2014 17:06
PCBs, total	ND	0.050	1	08/04/2014 17:06
<b>Surrogates</b>	<b>REC (%)</b>	<b>Limits</b>	<b>Analytical Comments: h4</b>	
Decachlorobiphenyl	115	70-130		08/04/2014 17:06

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-NB1	1408022-002A	Soil	07/31/2014	GC5A	93498

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	08/04/2014 17:44
Aroclor1221	ND	0.050	1	08/04/2014 17:44
Aroclor1232	ND	0.050	1	08/04/2014 17:44
Aroclor1242	ND	0.050	1	08/04/2014 17:44
Aroclor1248	ND	0.050	1	08/04/2014 17:44
Aroclor1254	ND	0.050	1	08/04/2014 17:44
Aroclor1260	ND	0.050	1	08/04/2014 17:44
PCBs, total	ND	0.050	1	08/04/2014 17:44
<b>Surrogates</b>	<b>REC (%)</b>	<b>Limits</b>		
Decachlorobiphenyl	102	70-130		08/04/2014 17:44

(Cont.)





## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14-8/5/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg

### Polychlorinated Biphenyls (PCBs) Aroclors

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB1	1408022-003A	Soil	07/31/2014	GC5A	93498

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	08/04/2014 15:51
Aroclor1221	ND	0.050	1	08/04/2014 15:51
Aroclor1232	ND	0.050	1	08/04/2014 15:51
Aroclor1242	ND	0.050	1	08/04/2014 15:51
Aroclor1248	ND	0.050	1	08/04/2014 15:51
Aroclor1254	ND	0.050	1	08/04/2014 15:51
Aroclor1260	ND	0.050	1	08/04/2014 15:51
PCBs, total	ND	0.050	1	08/04/2014 15:51

Surrogates	REC (%)	Limits	Analytical Comments: h4
Decachlorobiphenyl	118	70-130	08/04/2014 15:51

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-NB1	1408022-004A	Soil	07/31/2014	GC5A	93614

Analytes	Result	RL	DF	Date Analyzed
Aroclor1016	ND	0.050	1	08/05/2014 14:06
Aroclor1221	ND	0.050	1	08/05/2014 14:06
Aroclor1232	ND	0.050	1	08/05/2014 14:06
Aroclor1242	ND	0.050	1	08/05/2014 14:06
Aroclor1248	ND	0.050	1	08/05/2014 14:06
Aroclor1254	ND	0.050	1	08/05/2014 14:06
Aroclor1260	ND	0.050	1	08/05/2014 14:06
PCBs, total	ND	0.050	1	08/05/2014 14:06

Surrogates	REC (%)	Limits	Analytical Comments: h4
Decachlorobiphenyl	113	70-130	08/05/2014 14:06



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil	07/31/2014	GC16	93495
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.40	4	08/04/2014 15:13
tert-Amyl methyl ether (TAME)	ND		0.020	4	08/04/2014 15:13
Benzene	ND		0.020	4	08/04/2014 15:13
Bromobenzene	ND		0.020	4	08/04/2014 15:13
Bromochloromethane	ND		0.020	4	08/04/2014 15:13
Bromodichloromethane	ND		0.020	4	08/04/2014 15:13
Bromoform	ND		0.020	4	08/04/2014 15:13
Bromomethane	ND		0.020	4	08/04/2014 15:13
2-Butanone (MEK)	ND		0.080	4	08/04/2014 15:13
t-Butyl alcohol (TBA)	ND		0.20	4	08/04/2014 15:13
n-Butyl benzene	<b>0.023</b>		0.020	4	08/04/2014 15:13
sec-Butyl benzene	ND		0.020	4	08/04/2014 15:13
tert-Butyl benzene	ND		0.020	4	08/04/2014 15:13
Carbon Disulfide	ND		0.020	4	08/04/2014 15:13
Carbon Tetrachloride	ND		0.020	4	08/04/2014 15:13
Chlorobenzene	ND		0.020	4	08/04/2014 15:13
Chloroethane	ND		0.020	4	08/04/2014 15:13
Chloroform	ND		0.020	4	08/04/2014 15:13
Chloromethane	ND		0.020	4	08/04/2014 15:13
2-Chlorotoluene	ND		0.020	4	08/04/2014 15:13
4-Chlorotoluene	ND		0.020	4	08/04/2014 15:13
Dibromochloromethane	ND		0.020	4	08/04/2014 15:13
1,2-Dibromo-3-chloropropane	ND		0.016	4	08/04/2014 15:13
1,2-Dibromoethane (EDB)	ND		0.016	4	08/04/2014 15:13
Dibromomethane	ND		0.020	4	08/04/2014 15:13
1,2-Dichlorobenzene	ND		0.020	4	08/04/2014 15:13
1,3-Dichlorobenzene	ND		0.020	4	08/04/2014 15:13
1,4-Dichlorobenzene	ND		0.020	4	08/04/2014 15:13
Dichlorodifluoromethane	ND		0.020	4	08/04/2014 15:13
1,1-Dichloroethane	ND		0.020	4	08/04/2014 15:13
1,2-Dichloroethane (1,2-DCA)	ND		0.016	4	08/04/2014 15:13
1,1-Dichloroethene	ND		0.020	4	08/04/2014 15:13
cis-1,2-Dichloroethene	ND		0.020	4	08/04/2014 15:13
trans-1,2-Dichloroethene	ND		0.020	4	08/04/2014 15:13
1,2-Dichloropropane	ND		0.020	4	08/04/2014 15:13
1,3-Dichloropropane	ND		0.020	4	08/04/2014 15:13
2,2-Dichloropropane	ND		0.020	4	08/04/2014 15:13
1,1-Dichloropropene	ND		0.020	4	08/04/2014 15:13

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil	07/31/2014	GC16	93495
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.020	4	08/04/2014 15:13
trans-1,3-Dichloropropene	ND		0.020	4	08/04/2014 15:13
Diisopropyl ether (DIPE)	ND		0.020	4	08/04/2014 15:13
Ethylbenzene	ND		0.020	4	08/04/2014 15:13
Ethyl tert-butyl ether (ETBE)	ND		0.020	4	08/04/2014 15:13
Freon 113	ND		0.40	4	08/04/2014 15:13
Hexachlorobutadiene	ND		0.020	4	08/04/2014 15:13
Hexachloroethane	ND		0.020	4	08/04/2014 15:13
2-Hexanone	ND		0.020	4	08/04/2014 15:13
Isopropylbenzene	ND		0.020	4	08/04/2014 15:13
4-Isopropyl toluene	ND		0.020	4	08/04/2014 15:13
Methyl-t-butyl ether (MTBE)	ND		0.020	4	08/04/2014 15:13
Methylene chloride	ND		0.020	4	08/04/2014 15:13
4-Methyl-2-pentanone (MIBK)	ND		0.020	4	08/04/2014 15:13
Naphthalene	ND		0.020	4	08/04/2014 15:13
n-Propyl benzene	ND		0.020	4	08/04/2014 15:13
Styrene	ND		0.020	4	08/04/2014 15:13
1,1,1,2-Tetrachloroethane	ND		0.020	4	08/04/2014 15:13
1,1,2,2-Tetrachloroethane	ND		0.020	4	08/04/2014 15:13
Tetrachloroethene	ND		0.020	4	08/04/2014 15:13
Toluene	ND		0.020	4	08/04/2014 15:13
1,2,3-Trichlorobenzene	ND		0.020	4	08/04/2014 15:13
1,2,4-Trichlorobenzene	ND		0.020	4	08/04/2014 15:13
1,1,1-Trichloroethane	ND		0.020	4	08/04/2014 15:13
1,1,2-Trichloroethane	ND		0.020	4	08/04/2014 15:13
Trichloroethene	ND		0.020	4	08/04/2014 15:13
Trichlorofluoromethane	ND		0.020	4	08/04/2014 15:13
1,2,3-Trichloropropane	ND		0.020	4	08/04/2014 15:13
1,2,4-Trimethylbenzene	ND		0.020	4	08/04/2014 15:13
1,3,5-Trimethylbenzene	ND		0.020	4	08/04/2014 15:13
Vinyl Chloride	ND		0.020	4	08/04/2014 15:13
Xylenes, Total	ND		0.020	4	08/04/2014 15:13
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	<u>Analytical Comments:</u> A3	
Dibromofluoromethane	92		70-130	08/04/2014 15:13	
Toluene-d8	99		70-130	08/04/2014 15:13	
4-BFB	99		70-130	08/04/2014 15:13	

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-NB1	1408022-002A	Soil	07/31/2014	GC16	93495
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	08/04/2014 14:31
tert-Amyl methyl ether (TAME)	ND		0.0050	1	08/04/2014 14:31
Benzene	ND		0.0050	1	08/04/2014 14:31
Bromobenzene	ND		0.0050	1	08/04/2014 14:31
Bromochloromethane	ND		0.0050	1	08/04/2014 14:31
Bromodichloromethane	ND		0.0050	1	08/04/2014 14:31
Bromoform	ND		0.0050	1	08/04/2014 14:31
Bromomethane	ND		0.0050	1	08/04/2014 14:31
2-Butanone (MEK)	ND		0.020	1	08/04/2014 14:31
t-Butyl alcohol (TBA)	ND		0.050	1	08/04/2014 14:31
n-Butyl benzene	ND		0.0050	1	08/04/2014 14:31
sec-Butyl benzene	ND		0.0050	1	08/04/2014 14:31
tert-Butyl benzene	ND		0.0050	1	08/04/2014 14:31
Carbon Disulfide	ND		0.0050	1	08/04/2014 14:31
Carbon Tetrachloride	ND		0.0050	1	08/04/2014 14:31
Chlorobenzene	ND		0.0050	1	08/04/2014 14:31
Chloroethane	ND		0.0050	1	08/04/2014 14:31
Chloroform	ND		0.0050	1	08/04/2014 14:31
Chloromethane	ND		0.0050	1	08/04/2014 14:31
2-Chlorotoluene	ND		0.0050	1	08/04/2014 14:31
4-Chlorotoluene	ND		0.0050	1	08/04/2014 14:31
Dibromochloromethane	ND		0.0050	1	08/04/2014 14:31
1,2-Dibromo-3-chloropropane	ND		0.0040	1	08/04/2014 14:31
1,2-Dibromoethane (EDB)	ND		0.0040	1	08/04/2014 14:31
Dibromomethane	ND		0.0050	1	08/04/2014 14:31
1,2-Dichlorobenzene	ND		0.0050	1	08/04/2014 14:31
1,3-Dichlorobenzene	ND		0.0050	1	08/04/2014 14:31
1,4-Dichlorobenzene	ND		0.0050	1	08/04/2014 14:31
Dichlorodifluoromethane	ND		0.0050	1	08/04/2014 14:31
1,1-Dichloroethane	ND		0.0050	1	08/04/2014 14:31
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	08/04/2014 14:31
1,1-Dichloroethene	ND		0.0050	1	08/04/2014 14:31
cis-1,2-Dichloroethene	ND		0.0050	1	08/04/2014 14:31
trans-1,2-Dichloroethene	ND		0.0050	1	08/04/2014 14:31
1,2-Dichloropropane	ND		0.0050	1	08/04/2014 14:31
1,3-Dichloropropane	ND		0.0050	1	08/04/2014 14:31
2,2-Dichloropropane	ND		0.0050	1	08/04/2014 14:31
1,1-Dichloropropene	ND		0.0050	1	08/04/2014 14:31

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-NB1	1408022-002A	Soil	07/31/2014	GC16	93495
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	08/04/2014 14:31
trans-1,3-Dichloropropene	ND		0.0050	1	08/04/2014 14:31
Diisopropyl ether (DIPE)	ND		0.0050	1	08/04/2014 14:31
Ethylbenzene	ND		0.0050	1	08/04/2014 14:31
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	08/04/2014 14:31
Freon 113	ND		0.10	1	08/04/2014 14:31
Hexachlorobutadiene	ND		0.0050	1	08/04/2014 14:31
Hexachloroethane	ND		0.0050	1	08/04/2014 14:31
2-Hexanone	ND		0.0050	1	08/04/2014 14:31
Isopropylbenzene	ND		0.0050	1	08/04/2014 14:31
4-Isopropyl toluene	ND		0.0050	1	08/04/2014 14:31
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	08/04/2014 14:31
Methylene chloride	ND		0.0050	1	08/04/2014 14:31
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	08/04/2014 14:31
Naphthalene	ND		0.0050	1	08/04/2014 14:31
n-Propyl benzene	ND		0.0050	1	08/04/2014 14:31
Styrene	ND		0.0050	1	08/04/2014 14:31
1,1,1,2-Tetrachloroethane	ND		0.0050	1	08/04/2014 14:31
1,1,2,2-Tetrachloroethane	ND		0.0050	1	08/04/2014 14:31
Tetrachloroethene	ND		0.0050	1	08/04/2014 14:31
Toluene	ND		0.0050	1	08/04/2014 14:31
1,2,3-Trichlorobenzene	ND		0.0050	1	08/04/2014 14:31
1,2,4-Trichlorobenzene	ND		0.0050	1	08/04/2014 14:31
1,1,1-Trichloroethane	ND		0.0050	1	08/04/2014 14:31
1,1,2-Trichloroethane	ND		0.0050	1	08/04/2014 14:31
Trichloroethene	ND		0.0050	1	08/04/2014 14:31
Trichlorofluoromethane	ND		0.0050	1	08/04/2014 14:31
1,2,3-Trichloropropane	ND		0.0050	1	08/04/2014 14:31
1,2,4-Trimethylbenzene	ND		0.0050	1	08/04/2014 14:31
1,3,5-Trimethylbenzene	ND		0.0050	1	08/04/2014 14:31
Vinyl Chloride	ND		0.0050	1	08/04/2014 14:31
Xylenes, Total	ND		0.0050	1	08/04/2014 14:31
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	93		70-130		08/04/2014 14:31
Toluene-d8	103		70-130		08/04/2014 14:31
4-BFB	93		70-130		08/04/2014 14:31

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB1	1408022-003A	Soil	07/31/2014	GC16	93495
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		20	200	08/04/2014 15:56
tert-Amyl methyl ether (TAME)	ND		1.0	200	08/04/2014 15:56
Benzene	ND		1.0	200	08/04/2014 15:56
Bromobenzene	ND		1.0	200	08/04/2014 15:56
Bromochloromethane	ND		1.0	200	08/04/2014 15:56
Bromodichloromethane	ND		1.0	200	08/04/2014 15:56
Bromoform	ND		1.0	200	08/04/2014 15:56
Bromomethane	ND		1.0	200	08/04/2014 15:56
2-Butanone (MEK)	ND		4.0	200	08/04/2014 15:56
t-Butyl alcohol (TBA)	ND		10	200	08/04/2014 15:56
n-Butyl benzene	<b>1.8</b>		1.0	200	08/04/2014 15:56
sec-Butyl benzene	ND		1.0	200	08/04/2014 15:56
tert-Butyl benzene	ND		1.0	200	08/04/2014 15:56
Carbon Disulfide	ND		1.0	200	08/04/2014 15:56
Carbon Tetrachloride	ND		1.0	200	08/04/2014 15:56
Chlorobenzene	ND		1.0	200	08/04/2014 15:56
Chloroethane	ND		1.0	200	08/04/2014 15:56
Chloroform	ND		1.0	200	08/04/2014 15:56
Chloromethane	ND		1.0	200	08/04/2014 15:56
2-Chlorotoluene	ND		1.0	200	08/04/2014 15:56
4-Chlorotoluene	ND		1.0	200	08/04/2014 15:56
Dibromochloromethane	ND		1.0	200	08/04/2014 15:56
1,2-Dibromo-3-chloropropane	ND		0.80	200	08/04/2014 15:56
1,2-Dibromoethane (EDB)	ND		0.80	200	08/04/2014 15:56
Dibromomethane	ND		1.0	200	08/04/2014 15:56
1,2-Dichlorobenzene	ND		1.0	200	08/04/2014 15:56
1,3-Dichlorobenzene	ND		1.0	200	08/04/2014 15:56
1,4-Dichlorobenzene	ND		1.0	200	08/04/2014 15:56
Dichlorodifluoromethane	ND		1.0	200	08/04/2014 15:56
1,1-Dichloroethane	ND		1.0	200	08/04/2014 15:56
1,2-Dichloroethane (1,2-DCA)	ND		0.80	200	08/04/2014 15:56
1,1-Dichloroethene	ND		1.0	200	08/04/2014 15:56
cis-1,2-Dichloroethene	ND		1.0	200	08/04/2014 15:56
trans-1,2-Dichloroethene	ND		1.0	200	08/04/2014 15:56
1,2-Dichloropropane	ND		1.0	200	08/04/2014 15:56
1,3-Dichloropropane	ND		1.0	200	08/04/2014 15:56
2,2-Dichloropropane	ND		1.0	200	08/04/2014 15:56
1,1-Dichloropropene	ND		1.0	200	08/04/2014 15:56

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB1	1408022-003A	Soil	07/31/2014	GC16	93495
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		1.0	200	08/04/2014 15:56
trans-1,3-Dichloropropene	ND		1.0	200	08/04/2014 15:56
Diisopropyl ether (DIPE)	ND		1.0	200	08/04/2014 15:56
Ethylbenzene	ND		1.0	200	08/04/2014 15:56
Ethyl tert-butyl ether (ETBE)	ND		1.0	200	08/04/2014 15:56
Freon 113	ND		20	200	08/04/2014 15:56
Hexachlorobutadiene	ND		1.0	200	08/04/2014 15:56
Hexachloroethane	ND		1.0	200	08/04/2014 15:56
2-Hexanone	ND		1.0	200	08/04/2014 15:56
Isopropylbenzene	ND		1.0	200	08/04/2014 15:56
4-Isopropyl toluene	ND		1.0	200	08/04/2014 15:56
Methyl-t-butyl ether (MTBE)	ND		1.0	200	08/04/2014 15:56
Methylene chloride	ND		1.0	200	08/04/2014 15:56
4-Methyl-2-pentanone (MIBK)	ND		1.0	200	08/04/2014 15:56
Naphthalene	<b>12</b>		1.0	200	08/04/2014 15:56
n-Propyl benzene	ND		1.0	200	08/04/2014 15:56
Styrene	ND		1.0	200	08/04/2014 15:56
1,1,1,2-Tetrachloroethane	ND		1.0	200	08/04/2014 15:56
1,1,2,2-Tetrachloroethane	ND		1.0	200	08/04/2014 15:56
Tetrachloroethene	ND		1.0	200	08/04/2014 15:56
Toluene	ND		1.0	200	08/04/2014 15:56
1,2,3-Trichlorobenzene	ND		1.0	200	08/04/2014 15:56
1,2,4-Trichlorobenzene	ND		1.0	200	08/04/2014 15:56
1,1,1-Trichloroethane	ND		1.0	200	08/04/2014 15:56
1,1,2-Trichloroethane	ND		1.0	200	08/04/2014 15:56
Trichloroethene	ND		1.0	200	08/04/2014 15:56
Trichlorofluoromethane	ND		1.0	200	08/04/2014 15:56
1,2,3-Trichloropropane	ND		1.0	200	08/04/2014 15:56
1,2,4-Trimethylbenzene	<b>6.6</b>		1.0	200	08/04/2014 15:56
1,3,5-Trimethylbenzene	ND		1.0	200	08/04/2014 15:56
Vinyl Chloride	ND		1.0	200	08/04/2014 15:56
Xylenes, Total	ND		1.0	200	08/04/2014 15:56
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	93		70-130		08/04/2014 15:56
Toluene-d8	95		70-130		08/04/2014 15:56
4-BFB	98		70-130		08/04/2014 15:56

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

### Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-NB1	1408022-004A	Soil	07/31/2014	GC16	93495
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acetone	ND		0.10	1	08/02/2014 03:49
tert-Amyl methyl ether (TAME)	ND		0.0050	1	08/02/2014 03:49
Benzene	ND		0.0050	1	08/02/2014 03:49
Bromobenzene	ND		0.0050	1	08/02/2014 03:49
Bromochloromethane	ND		0.0050	1	08/02/2014 03:49
Bromodichloromethane	ND		0.0050	1	08/02/2014 03:49
Bromoform	ND		0.0050	1	08/02/2014 03:49
Bromomethane	ND		0.0050	1	08/02/2014 03:49
2-Butanone (MEK)	ND		0.020	1	08/02/2014 03:49
t-Butyl alcohol (TBA)	ND		0.050	1	08/02/2014 03:49
n-Butyl benzene	ND		0.0050	1	08/02/2014 03:49
sec-Butyl benzene	ND		0.0050	1	08/02/2014 03:49
tert-Butyl benzene	ND		0.0050	1	08/02/2014 03:49
Carbon Disulfide	ND		0.0050	1	08/02/2014 03:49
Carbon Tetrachloride	ND		0.0050	1	08/02/2014 03:49
Chlorobenzene	ND		0.0050	1	08/02/2014 03:49
Chloroethane	ND		0.0050	1	08/02/2014 03:49
Chloroform	ND		0.0050	1	08/02/2014 03:49
Chloromethane	ND		0.0050	1	08/02/2014 03:49
2-Chlorotoluene	ND		0.0050	1	08/02/2014 03:49
4-Chlorotoluene	ND		0.0050	1	08/02/2014 03:49
Dibromochloromethane	ND		0.0050	1	08/02/2014 03:49
1,2-Dibromo-3-chloropropane	ND		0.0040	1	08/02/2014 03:49
1,2-Dibromoethane (EDB)	ND		0.0040	1	08/02/2014 03:49
Dibromomethane	ND		0.0050	1	08/02/2014 03:49
1,2-Dichlorobenzene	ND		0.0050	1	08/02/2014 03:49
1,3-Dichlorobenzene	ND		0.0050	1	08/02/2014 03:49
1,4-Dichlorobenzene	ND		0.0050	1	08/02/2014 03:49
Dichlorodifluoromethane	ND		0.0050	1	08/02/2014 03:49
1,1-Dichloroethane	ND		0.0050	1	08/02/2014 03:49
1,2-Dichloroethane (1,2-DCA)	ND		0.0040	1	08/02/2014 03:49
1,1-Dichloroethene	ND		0.0050	1	08/02/2014 03:49
cis-1,2-Dichloroethene	ND		0.0050	1	08/02/2014 03:49
trans-1,2-Dichloroethene	ND		0.0050	1	08/02/2014 03:49
1,2-Dichloropropane	ND		0.0050	1	08/02/2014 03:49
1,3-Dichloropropane	ND		0.0050	1	08/02/2014 03:49
2,2-Dichloropropane	ND		0.0050	1	08/02/2014 03:49
1,1-Dichloropropene	ND		0.0050	1	08/02/2014 03:49

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# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/kg

## Volatile Organics by P&T and GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-NB1	1408022-004A	Soil	07/31/2014	GC16	93495
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
cis-1,3-Dichloropropene	ND		0.0050	1	08/02/2014 03:49
trans-1,3-Dichloropropene	ND		0.0050	1	08/02/2014 03:49
Diisopropyl ether (DIPE)	ND		0.0050	1	08/02/2014 03:49
Ethylbenzene	ND		0.0050	1	08/02/2014 03:49
Ethyl tert-butyl ether (ETBE)	ND		0.0050	1	08/02/2014 03:49
Freon 113	ND		0.10	1	08/02/2014 03:49
Hexachlorobutadiene	ND		0.0050	1	08/02/2014 03:49
Hexachloroethane	ND		0.0050	1	08/02/2014 03:49
2-Hexanone	ND		0.0050	1	08/02/2014 03:49
Isopropylbenzene	ND		0.0050	1	08/02/2014 03:49
4-Isopropyl toluene	ND		0.0050	1	08/02/2014 03:49
Methyl-t-butyl ether (MTBE)	ND		0.0050	1	08/02/2014 03:49
Methylene chloride	ND		0.0050	1	08/02/2014 03:49
4-Methyl-2-pentanone (MIBK)	ND		0.0050	1	08/02/2014 03:49
Naphthalene	ND		0.0050	1	08/02/2014 03:49
n-Propyl benzene	ND		0.0050	1	08/02/2014 03:49
Styrene	ND		0.0050	1	08/02/2014 03:49
1,1,1,2-Tetrachloroethane	ND		0.0050	1	08/02/2014 03:49
1,1,2,2-Tetrachloroethane	ND		0.0050	1	08/02/2014 03:49
Tetrachloroethene	ND		0.0050	1	08/02/2014 03:49
Toluene	ND		0.0050	1	08/02/2014 03:49
1,2,3-Trichlorobenzene	ND		0.0050	1	08/02/2014 03:49
1,2,4-Trichlorobenzene	ND		0.0050	1	08/02/2014 03:49
1,1,1-Trichloroethane	ND		0.0050	1	08/02/2014 03:49
1,1,2-Trichloroethane	ND		0.0050	1	08/02/2014 03:49
Trichloroethene	ND		0.0050	1	08/02/2014 03:49
Trichlorofluoromethane	ND		0.0050	1	08/02/2014 03:49
1,2,3-Trichloropropane	ND		0.0050	1	08/02/2014 03:49
1,2,4-Trimethylbenzene	ND		0.0050	1	08/02/2014 03:49
1,3,5-Trimethylbenzene	ND		0.0050	1	08/02/2014 03:49
Vinyl Chloride	ND		0.0050	1	08/02/2014 03:49
Xylenes, Total	ND		0.0050	1	08/02/2014 03:49
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Dibromofluoromethane	87		70-130		08/02/2014 03:49
Toluene-d8	105		70-130		08/02/2014 03:49
4-BFB	95		70-130		08/02/2014 03:49



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil	07/31/2014	GC21	93482
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acenaphthene	ND		40	20	08/01/2014 16:54
Acenaphthylene	ND		40	20	08/01/2014 16:54
Acetochlor	ND		40	20	08/01/2014 16:54
Anthracene	ND		40	20	08/01/2014 16:54
Benzidine	ND		210	20	08/01/2014 16:54
Benzo (a) anthracene	ND		40	20	08/01/2014 16:54
Benzo (b) fluoranthene	ND		40	20	08/01/2014 16:54
Benzo (k) fluoranthene	ND		40	20	08/01/2014 16:54
Benzo (g,h,i) perylene	ND		40	20	08/01/2014 16:54
Benzo (a) pyrene	ND		40	20	08/01/2014 16:54
Benzyl Alcohol	ND		210	20	08/01/2014 16:54
1,1-Biphenyl	ND		40	20	08/01/2014 16:54
Bis (2-chloroethoxy) Methane	ND		40	20	08/01/2014 16:54
Bis (2-chloroethyl) Ether	ND		40	20	08/01/2014 16:54
Bis (2-chloroisopropyl) Ether	ND		40	20	08/01/2014 16:54
Bis (2-ethylhexyl) Adipate	ND		40	20	08/01/2014 16:54
Bis (2-ethylhexyl) Phthalate	ND		40	20	08/01/2014 16:54
4-Bromophenyl Phenyl Ether	ND		40	20	08/01/2014 16:54
Butylbenzyl Phthalate	ND		40	20	08/01/2014 16:54
4-Chloroaniline	ND		40	20	08/01/2014 16:54
4-Chloro-3-methylphenol	ND		40	20	08/01/2014 16:54
2-Chloronaphthalene	ND		40	20	08/01/2014 16:54
2-Chlorophenol	ND		40	20	08/01/2014 16:54
4-Chlorophenyl Phenyl Ether	ND		40	20	08/01/2014 16:54
Chrysene	ND		40	20	08/01/2014 16:54
Dibenzo (a,h) anthracene	ND		40	20	08/01/2014 16:54
Dibenzofuran	ND		40	20	08/01/2014 16:54
Di-n-butyl Phthalate	ND		40	20	08/01/2014 16:54
1,2-Dichlorobenzene	ND		40	20	08/01/2014 16:54
1,3-Dichlorobenzene	ND		40	20	08/01/2014 16:54
1,4-Dichlorobenzene	ND		40	20	08/01/2014 16:54
3,3-Dichlorobenzidine	ND		80	20	08/01/2014 16:54
2,4-Dichlorophenol	ND		40	20	08/01/2014 16:54
Diethyl Phthalate	ND		40	20	08/01/2014 16:54
2,4-Dimethylphenol	ND		40	20	08/01/2014 16:54
Dimethyl Phthalate	ND		40	20	08/01/2014 16:54
4,6-Dinitro-2-methylphenol	ND		210	20	08/01/2014 16:54
2,4-Dinitrophenol	ND		1000	20	08/01/2014 16:54

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil	07/31/2014	GC21	93482
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
2,4-Dinitrotoluene	ND		40	20	08/01/2014 16:54
2,6-Dinitrotoluene	ND		40	20	08/01/2014 16:54
Di-n-octyl Phthalate	ND		80	20	08/01/2014 16:54
1,2-Diphenylhydrazine	ND		40	20	08/01/2014 16:54
Fluoranthene	ND		40	20	08/01/2014 16:54
Fluorene	ND		40	20	08/01/2014 16:54
Hexachlorobenzene	ND		40	20	08/01/2014 16:54
Hexachlorobutadiene	ND		40	20	08/01/2014 16:54
Hexachlorocyclopentadiene	ND		210	20	08/01/2014 16:54
Hexachloroethane	ND		40	20	08/01/2014 16:54
Indeno (1,2,3-cd) pyrene	ND		40	20	08/01/2014 16:54
Isophorone	ND		40	20	08/01/2014 16:54
2-Methylnaphthalene	ND		40	20	08/01/2014 16:54
2-Methylphenol (o-Cresol)	ND		40	20	08/01/2014 16:54
3 &/or 4-Methylphenol (m,p-Cresol)	ND		40	20	08/01/2014 16:54
Naphthalene	ND		40	20	08/01/2014 16:54
2-Nitroaniline	ND		210	20	08/01/2014 16:54
3-Nitroaniline	ND		210	20	08/01/2014 16:54
4-Nitroaniline	ND		210	20	08/01/2014 16:54
Nitrobenzene	ND		40	20	08/01/2014 16:54
2-Nitrophenol	ND		210	20	08/01/2014 16:54
4-Nitrophenol	ND		210	20	08/01/2014 16:54
N-Nitrosodiphenylamine	ND		40	20	08/01/2014 16:54
N-Nitrosodi-n-propylamine	ND		40	20	08/01/2014 16:54
Pentachlorophenol	ND		210	20	08/01/2014 16:54
Phenanthrene	ND		40	20	08/01/2014 16:54
Phenol	ND		40	20	08/01/2014 16:54
Pyrene	ND		40	20	08/01/2014 16:54
1,2,4-Trichlorobenzene	ND		40	20	08/01/2014 16:54
2,4,5-Trichlorophenol	ND		40	20	08/01/2014 16:54
2,4,6-Trichlorophenol	ND		40	20	08/01/2014 16:54

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil	07/31/2014	GC21	93482

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3,a4	
2-Fluorophenol	107	30-130		08/01/2014 16:54
Phenol-d5	96	30-130		08/01/2014 16:54
Nitrobenzene-d5	90	30-130		08/01/2014 16:54
2-Fluorobiphenyl	100	30-130		08/01/2014 16:54
2,4,6-Tribromophenol	18	16-130		08/01/2014 16:54
4-Terphenyl-d14	102	30-130		08/01/2014 16:54

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# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-NB1	1408022-002A	Soil	07/31/2014	GC21	93482
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acenaphthene	ND		0.25	1	08/04/2014 15:44
Acenaphthylene	ND		0.25	1	08/04/2014 15:44
Acetochlor	ND		0.25	1	08/04/2014 15:44
Anthracene	ND		0.25	1	08/04/2014 15:44
Benzidine	ND		1.3	1	08/04/2014 15:44
Benzo (a) anthracene	ND		0.25	1	08/04/2014 15:44
Benzo (b) fluoranthene	ND		0.25	1	08/04/2014 15:44
Benzo (k) fluoranthene	ND		0.25	1	08/04/2014 15:44
Benzo (g,h,i) perylene	ND		0.25	1	08/04/2014 15:44
Benzo (a) pyrene	ND		0.25	1	08/04/2014 15:44
Benzyl Alcohol	ND		1.3	1	08/04/2014 15:44
1,1-Biphenyl	ND		0.25	1	08/04/2014 15:44
Bis (2-chloroethoxy) Methane	ND		0.25	1	08/04/2014 15:44
Bis (2-chloroethyl) Ether	ND		0.25	1	08/04/2014 15:44
Bis (2-chloroisopropyl) Ether	ND		0.25	1	08/04/2014 15:44
Bis (2-ethylhexyl) Adipate	ND		0.25	1	08/04/2014 15:44
Bis (2-ethylhexyl) Phthalate	ND		0.25	1	08/04/2014 15:44
4-Bromophenyl Phenyl Ether	ND		0.25	1	08/04/2014 15:44
Butylbenzyl Phthalate	ND		0.25	1	08/04/2014 15:44
4-Chloroaniline	ND		0.25	1	08/04/2014 15:44
4-Chloro-3-methylphenol	ND		0.25	1	08/04/2014 15:44
2-Chloronaphthalene	ND		0.25	1	08/04/2014 15:44
2-Chlorophenol	ND		0.25	1	08/04/2014 15:44
4-Chlorophenyl Phenyl Ether	ND		0.25	1	08/04/2014 15:44
Chrysene	ND		0.25	1	08/04/2014 15:44
Dibenzo (a,h) anthracene	ND		0.25	1	08/04/2014 15:44
Dibenzofuran	ND		0.25	1	08/04/2014 15:44
Di-n-butyl Phthalate	ND		0.25	1	08/04/2014 15:44
1,2-Dichlorobenzene	ND		0.25	1	08/04/2014 15:44
1,3-Dichlorobenzene	ND		0.25	1	08/04/2014 15:44
1,4-Dichlorobenzene	ND		0.25	1	08/04/2014 15:44
3,3-Dichlorobenzidine	ND		0.50	1	08/04/2014 15:44
2,4-Dichlorophenol	ND		0.25	1	08/04/2014 15:44
Diethyl Phthalate	ND		0.25	1	08/04/2014 15:44
2,4-Dimethylphenol	ND		0.25	1	08/04/2014 15:44
Dimethyl Phthalate	ND		0.25	1	08/04/2014 15:44
4,6-Dinitro-2-methylphenol	ND		1.3	1	08/04/2014 15:44
2,4-Dinitrophenol	ND		6.3	1	08/04/2014 15:44

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-NB1	1408022-002A	Soil	07/31/2014	GC21	93482
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
2,4-Dinitrotoluene	ND		0.25	1	08/04/2014 15:44
2,6-Dinitrotoluene	ND		0.25	1	08/04/2014 15:44
Di-n-octyl Phthalate	ND		0.50	1	08/04/2014 15:44
1,2-Diphenylhydrazine	ND		0.25	1	08/04/2014 15:44
Fluoranthene	ND		0.25	1	08/04/2014 15:44
Fluorene	ND		0.25	1	08/04/2014 15:44
Hexachlorobenzene	ND		0.25	1	08/04/2014 15:44
Hexachlorobutadiene	ND		0.25	1	08/04/2014 15:44
Hexachlorocyclopentadiene	ND		1.3	1	08/04/2014 15:44
Hexachloroethane	ND		0.25	1	08/04/2014 15:44
Indeno (1,2,3-cd) pyrene	ND		0.25	1	08/04/2014 15:44
Isophorone	ND		0.25	1	08/04/2014 15:44
2-Methylnaphthalene	ND		0.25	1	08/04/2014 15:44
2-Methylphenol (o-Cresol)	ND		0.25	1	08/04/2014 15:44
3 &/or 4-Methylphenol (m,p-Cresol)	ND		0.25	1	08/04/2014 15:44
Naphthalene	ND		0.25	1	08/04/2014 15:44
2-Nitroaniline	ND		1.3	1	08/04/2014 15:44
3-Nitroaniline	ND		1.3	1	08/04/2014 15:44
4-Nitroaniline	ND		1.3	1	08/04/2014 15:44
Nitrobenzene	ND		0.25	1	08/04/2014 15:44
2-Nitrophenol	ND		1.3	1	08/04/2014 15:44
4-Nitrophenol	ND		1.3	1	08/04/2014 15:44
N-Nitrosodiphenylamine	ND		0.25	1	08/04/2014 15:44
N-Nitrosodi-n-propylamine	ND		0.25	1	08/04/2014 15:44
Pentachlorophenol	ND		1.3	1	08/04/2014 15:44
Phenanthrene	ND		0.25	1	08/04/2014 15:44
Phenol	ND		0.25	1	08/04/2014 15:44
Pyrene	ND		0.25	1	08/04/2014 15:44
1,2,4-Trichlorobenzene	ND		0.25	1	08/04/2014 15:44
2,4,5-Trichlorophenol	ND		0.25	1	08/04/2014 15:44
2,4,6-Trichlorophenol	ND		0.25	1	08/04/2014 15:44

(Cont.)



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-NB1	1408022-002A	Soil	07/31/2014	GC21	93482

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	93	30-130		08/04/2014 15:44
Phenol-d5	89	30-130		08/04/2014 15:44
Nitrobenzene-d5	91	30-130		08/04/2014 15:44
2-Fluorobiphenyl	74	30-130		08/04/2014 15:44
2,4,6-Tribromophenol	41	16-130		08/04/2014 15:44
4-Terphenyl-d14	88	30-130		08/04/2014 15:44

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB1	1408022-003A	Soil	07/31/2014	GC21	93482
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acenaphthene	ND		2.0	1	08/01/2014 17:22
Acenaphthylene	ND		2.0	1	08/01/2014 17:22
Acetochlor	ND		2.0	1	08/01/2014 17:22
Anthracene	ND		2.0	1	08/01/2014 17:22
Benzidine	ND		10	1	08/01/2014 17:22
Benzo (a) anthracene	ND		2.0	1	08/01/2014 17:22
Benzo (b) fluoranthene	ND		2.0	1	08/01/2014 17:22
Benzo (k) fluoranthene	ND		2.0	1	08/01/2014 17:22
Benzo (g,h,i) perylene	ND		2.0	1	08/01/2014 17:22
Benzo (a) pyrene	ND		2.0	1	08/01/2014 17:22
Benzyl Alcohol	ND		10	1	08/01/2014 17:22
1,1-Biphenyl	ND		2.0	1	08/01/2014 17:22
Bis (2-chloroethoxy) Methane	ND		2.0	1	08/01/2014 17:22
Bis (2-chloroethyl) Ether	ND		2.0	1	08/01/2014 17:22
Bis (2-chloroisopropyl) Ether	ND		2.0	1	08/01/2014 17:22
Bis (2-ethylhexyl) Adipate	ND		2.0	1	08/01/2014 17:22
Bis (2-ethylhexyl) Phthalate	ND		2.0	1	08/01/2014 17:22
4-Bromophenyl Phenyl Ether	ND		2.0	1	08/01/2014 17:22
Butylbenzyl Phthalate	ND		2.0	1	08/01/2014 17:22
4-Chloroaniline	ND		2.0	1	08/01/2014 17:22
4-Chloro-3-methylphenol	ND		2.0	1	08/01/2014 17:22
2-Chloronaphthalene	ND		2.0	1	08/01/2014 17:22
2-Chlorophenol	ND		2.0	1	08/01/2014 17:22
4-Chlorophenyl Phenyl Ether	ND		2.0	1	08/01/2014 17:22
Chrysene	ND		2.0	1	08/01/2014 17:22
Dibenzo (a,h) anthracene	ND		2.0	1	08/01/2014 17:22
Dibenzofuran	ND		2.0	1	08/01/2014 17:22
Di-n-butyl Phthalate	ND		2.0	1	08/01/2014 17:22
1,2-Dichlorobenzene	ND		2.0	1	08/01/2014 17:22
1,3-Dichlorobenzene	ND		2.0	1	08/01/2014 17:22
1,4-Dichlorobenzene	ND		2.0	1	08/01/2014 17:22
3,3-Dichlorobenzidine	ND		4.0	1	08/01/2014 17:22
2,4-Dichlorophenol	ND		2.0	1	08/01/2014 17:22
Diethyl Phthalate	ND		2.0	1	08/01/2014 17:22
2,4-Dimethylphenol	ND		2.0	1	08/01/2014 17:22
Dimethyl Phthalate	ND		2.0	1	08/01/2014 17:22
4,6-Dinitro-2-methylphenol	ND		10	1	08/01/2014 17:22
2,4-Dinitrophenol	ND		50	1	08/01/2014 17:22

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## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB1	1408022-003A	Soil	07/31/2014	GC21	93482
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
2,4-Dinitrotoluene	ND		2.0	1	08/01/2014 17:22
2,6-Dinitrotoluene	ND		2.0	1	08/01/2014 17:22
Di-n-octyl Phthalate	ND		4.0	1	08/01/2014 17:22
1,2-Diphenylhydrazine	ND		2.0	1	08/01/2014 17:22
Fluoranthene	ND		2.0	1	08/01/2014 17:22
Fluorene	ND		2.0	1	08/01/2014 17:22
Hexachlorobenzene	ND		2.0	1	08/01/2014 17:22
Hexachlorobutadiene	ND		2.0	1	08/01/2014 17:22
Hexachlorocyclopentadiene	ND		10	1	08/01/2014 17:22
Hexachloroethane	ND		2.0	1	08/01/2014 17:22
Indeno (1,2,3-cd) pyrene	ND		2.0	1	08/01/2014 17:22
Isophorone	ND		2.0	1	08/01/2014 17:22
2-Methylnaphthalene	9.1		2.0	1	08/01/2014 17:22
2-Methylphenol (o-Cresol)	ND		2.0	1	08/01/2014 17:22
3 &/or 4-Methylphenol (m,p-Cresol)	ND		2.0	1	08/01/2014 17:22
Naphthalene	7.1		2.0	1	08/01/2014 17:22
2-Nitroaniline	ND		10	1	08/01/2014 17:22
3-Nitroaniline	ND		10	1	08/01/2014 17:22
4-Nitroaniline	ND		10	1	08/01/2014 17:22
Nitrobenzene	ND		2.0	1	08/01/2014 17:22
2-Nitrophenol	ND		10	1	08/01/2014 17:22
4-Nitrophenol	ND		10	1	08/01/2014 17:22
N-Nitrosodiphenylamine	ND		2.0	1	08/01/2014 17:22
N-Nitrosodi-n-propylamine	ND		2.0	1	08/01/2014 17:22
Pentachlorophenol	ND		10	1	08/01/2014 17:22
Phenanthrene	ND		2.0	1	08/01/2014 17:22
Phenol	ND		2.0	1	08/01/2014 17:22
Pyrene	ND		2.0	1	08/01/2014 17:22
1,2,4-Trichlorobenzene	ND		2.0	1	08/01/2014 17:22
2,4,5-Trichlorophenol	ND		2.0	1	08/01/2014 17:22
2,4,6-Trichlorophenol	ND		2.0	1	08/01/2014 17:22

(Cont.)



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

## Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB1	1408022-003A	Soil	07/31/2014	GC21	93482

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorophenol	109	30-130		08/01/2014 17:22
Phenol-d5	98	30-130		08/01/2014 17:22
Nitrobenzene-d5	130	30-130		08/01/2014 17:22
2-Fluorobiphenyl	91	30-130		08/01/2014 17:22
2,4,6-Tribromophenol	56	16-130		08/01/2014 17:22
4-Terphenyl-d14	93	30-130		08/01/2014 17:22

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-NB1	1408022-004A	Soil	07/31/2014	GC21	93482
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Acenaphthene	ND		10	5	08/01/2014 17:51
Acenaphthylene	ND		10	5	08/01/2014 17:51
Acetochlor	ND		10	5	08/01/2014 17:51
Anthracene	ND		10	5	08/01/2014 17:51
Benzidine	ND		52	5	08/01/2014 17:51
Benzo (a) anthracene	ND		10	5	08/01/2014 17:51
Benzo (b) fluoranthene	ND		10	5	08/01/2014 17:51
Benzo (k) fluoranthene	ND		10	5	08/01/2014 17:51
Benzo (g,h,i) perylene	ND		10	5	08/01/2014 17:51
Benzo (a) pyrene	ND		10	5	08/01/2014 17:51
Benzyl Alcohol	ND		52	5	08/01/2014 17:51
1,1-Biphenyl	ND		10	5	08/01/2014 17:51
Bis (2-chloroethoxy) Methane	ND		10	5	08/01/2014 17:51
Bis (2-chloroethyl) Ether	ND		10	5	08/01/2014 17:51
Bis (2-chloroisopropyl) Ether	ND		10	5	08/01/2014 17:51
Bis (2-ethylhexyl) Adipate	ND		10	5	08/01/2014 17:51
Bis (2-ethylhexyl) Phthalate	ND		10	5	08/01/2014 17:51
4-Bromophenyl Phenyl Ether	ND		10	5	08/01/2014 17:51
Butylbenzyl Phthalate	ND		10	5	08/01/2014 17:51
4-Chloroaniline	ND		10	5	08/01/2014 17:51
4-Chloro-3-methylphenol	ND		10	5	08/01/2014 17:51
2-Chloronaphthalene	ND		10	5	08/01/2014 17:51
2-Chlorophenol	ND		10	5	08/01/2014 17:51
4-Chlorophenyl Phenyl Ether	ND		10	5	08/01/2014 17:51
Chrysene	ND		10	5	08/01/2014 17:51
Dibenzo (a,h) anthracene	ND		10	5	08/01/2014 17:51
Dibenzofuran	ND		10	5	08/01/2014 17:51
Di-n-butyl Phthalate	ND		10	5	08/01/2014 17:51
1,2-Dichlorobenzene	ND		10	5	08/01/2014 17:51
1,3-Dichlorobenzene	ND		10	5	08/01/2014 17:51
1,4-Dichlorobenzene	ND		10	5	08/01/2014 17:51
3,3-Dichlorobenzidine	ND		20	5	08/01/2014 17:51
2,4-Dichlorophenol	ND		10	5	08/01/2014 17:51
Diethyl Phthalate	ND		10	5	08/01/2014 17:51
2,4-Dimethylphenol	ND		10	5	08/01/2014 17:51
Dimethyl Phthalate	ND		10	5	08/01/2014 17:51
4,6-Dinitro-2-methylphenol	ND		52	5	08/01/2014 17:51
2,4-Dinitrophenol	ND		250	5	08/01/2014 17:51

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-NB1	1408022-004A	Soil	07/31/2014	GC21	93482
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
2,4-Dinitrotoluene	ND		10	5	08/01/2014 17:51
2,6-Dinitrotoluene	ND		10	5	08/01/2014 17:51
Di-n-octyl Phthalate	ND		20	5	08/01/2014 17:51
1,2-Diphenylhydrazine	ND		10	5	08/01/2014 17:51
Fluoranthene	ND		10	5	08/01/2014 17:51
Fluorene	ND		10	5	08/01/2014 17:51
Hexachlorobenzene	ND		10	5	08/01/2014 17:51
Hexachlorobutadiene	ND		10	5	08/01/2014 17:51
Hexachlorocyclopentadiene	ND		52	5	08/01/2014 17:51
Hexachloroethane	ND		10	5	08/01/2014 17:51
Indeno (1,2,3-cd) pyrene	ND		10	5	08/01/2014 17:51
Isophorone	ND		10	5	08/01/2014 17:51
2-Methylnaphthalene	ND		10	5	08/01/2014 17:51
2-Methylphenol (o-Cresol)	ND		10	5	08/01/2014 17:51
3 &/or 4-Methylphenol (m,p-Cresol)	ND		10	5	08/01/2014 17:51
Naphthalene	ND		10	5	08/01/2014 17:51
2-Nitroaniline	ND		52	5	08/01/2014 17:51
3-Nitroaniline	ND		52	5	08/01/2014 17:51
4-Nitroaniline	ND		52	5	08/01/2014 17:51
Nitrobenzene	ND		10	5	08/01/2014 17:51
2-Nitrophenol	ND		52	5	08/01/2014 17:51
4-Nitrophenol	ND		52	5	08/01/2014 17:51
N-Nitrosodiphenylamine	ND		10	5	08/01/2014 17:51
N-Nitrosodi-n-propylamine	ND		10	5	08/01/2014 17:51
Pentachlorophenol	ND		52	5	08/01/2014 17:51
Phenanthrene	ND		10	5	08/01/2014 17:51
Phenol	ND		10	5	08/01/2014 17:51
Pyrene	ND		10	5	08/01/2014 17:51
1,2,4-Trichlorobenzene	ND		10	5	08/01/2014 17:51
2,4,5-Trichlorophenol	ND		10	5	08/01/2014 17:51
2,4,6-Trichlorophenol	ND		10	5	08/01/2014 17:51

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg

### Semi-Volatile Organics by GC/MS (Basic Target List)

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-NB1	1408022-004A	Soil	07/31/2014	GC21	93482

Analytes	Result	RL	DF	Date Analyzed
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a3,a4	
2-Fluorophenol	106	30-130		08/01/2014 17:51
Phenol-d5	96	30-130		08/01/2014 17:51
Nitrobenzene-d5	91	30-130		08/01/2014 17:51
2-Fluorobiphenyl	91	30-130		08/01/2014 17:51
2,4,6-Tribromophenol	33	16-130		08/01/2014 17:51
4-Terphenyl-d14	89	30-130		08/01/2014 17:51



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil	07/31/2014	GC7	93483

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	83	5.0	5	08/04/2014 14:18
MTBE	---	0.25	5	08/04/2014 14:18
Benzene	---	0.025	5	08/04/2014 14:18
Toluene	---	0.025	5	08/04/2014 14:18
Ethylbenzene	---	0.025	5	08/04/2014 14:18
Xylenes	---	0.025	5	08/04/2014 14:18
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
2-Fluorotoluene	107	70-130		08/04/2014 14:18

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-NB1	1408022-002A	Soil	07/31/2014	GC19	93483

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	ND	1.0	1	08/01/2014 23:51
MTBE	---	0.050	1	08/01/2014 23:51
Benzene	---	0.0050	1	08/01/2014 23:51
Toluene	---	0.0050	1	08/01/2014 23:51
Ethylbenzene	---	0.0050	1	08/01/2014 23:51
Xylenes	---	0.0050	1	08/01/2014 23:51
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>		
2-Fluorotoluene	105	70-130		08/01/2014 23:51

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB1	1408022-003A	Soil	07/31/2014	GC7	93483

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	550	50	50	08/04/2014 15:19
MTBE	---	2.5	50	08/04/2014 15:19
Benzene	---	0.25	50	08/04/2014 15:19
Toluene	---	0.25	50	08/04/2014 15:19
Ethylbenzene	---	0.25	50	08/04/2014 15:19
Xylenes	---	0.25	50	08/04/2014 15:19
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: d7	
aaa-TFT_2	92	70-130		08/04/2014 15:19

(Cont.)



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8021B/8015Bm  
**Unit:** mg/Kg

### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-NB1	1408022-004A	Soil	07/31/2014	GC7	93483

Analytes	Result	RL	DF	Date Analyzed
TPH(g)	2.1	1.0	1	08/04/2014 13:48
MTBE	---	0.050	1	08/04/2014 13:48
Benzene	---	0.0050	1	08/04/2014 13:48
Toluene	---	0.0050	1	08/04/2014 13:48
Ethylbenzene	---	0.0050	1	08/04/2014 13:48
Xylenes	---	0.0050	1	08/04/2014 13:48
Surrogates	REC (%)	Limits	Analytical Comments: d7	
2-Fluorotoluene	102	70-130	08/04/2014 13:48	



# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

## LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil/TOTAL	07/31/2014	ICP-MS2	93503

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	08/04/2014 18:53
Chromium	46	0.50	1	08/04/2014 18:53
Lead	9.6	0.50	1	08/04/2014 18:53
Nickel	46	0.50	1	08/04/2014 18:53
Zinc	61	5.0	1	08/04/2014 18:53
Surrogates	REC (%)	Limits		
Tb 350.917	103	70-130		08/04/2014 18:53

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-NB1	1408022-002A	Soil/TOTAL	07/31/2014	ICP-MS2	93503

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	08/04/2014 18:59
Chromium	51	0.50	1	08/04/2014 18:59
Lead	9.5	0.50	1	08/04/2014 18:59
Nickel	50	0.50	1	08/04/2014 18:59
Zinc	62	5.0	1	08/04/2014 18:59
Surrogates	REC (%)	Limits		
Tb 350.917	105	70-130		08/04/2014 18:59

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB1	1408022-003A	Soil/TOTAL	07/31/2014	ICP-MS2	93503

Analytes	Result	RL	DF	Date Analyzed
Cadmium	ND	0.25	1	08/04/2014 19:05
Chromium	42	0.50	1	08/04/2014 23:03
Lead	10	0.50	1	08/04/2014 19:05
Nickel	42	0.50	1	08/04/2014 19:05
Zinc	57	5.0	1	08/04/2014 19:05
Surrogates	REC (%)	Limits		
Tb 350.917	104	70-130		08/04/2014 19:05

(Cont.)





# Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg

## LUFT 5 Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-NB1	1408022-004A	Soil/TOTAL	07/31/2014	ICP-MS2	93503
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Cadmium	ND		0.25	1	08/04/2014 19:11
Chromium	46		0.50	1	08/04/2014 23:09
Lead	10		0.50	1	08/04/2014 19:11
Nickel	50		0.50	1	08/04/2014 19:11
Zinc	67		5.0	1	08/04/2014 19:11
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>		
Tb 350.917	105		70-130		08/04/2014 19:11



## Analytical Report

**Client:** SCA Enviromental, Inc.  
**Project:** #11167 Task4; HACA UST Services  
**Date Received:** 8/1/14 13:08  
**Date Prepared:** 8/1/14

**WorkOrder:** 1408022  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg

### Total Extractable Petroleum Hydrocarbons

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-SB1	1408022-001A	Soil	07/31/2014	GC9a	93535

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	1300	50	50	08/03/2014 18:14
TPH-Motor Oil (C18-C36)	2200	250	50	08/03/2014 18:14
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: e7,e2	
C9	112	70-130		08/03/2014 18:14

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST1-NB1	1408022-002A	Soil	07/31/2014	GC9a	93535

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	15	1.0	1	08/02/2014 12:24
TPH-Motor Oil (C18-C36)	20	5.0	1	08/02/2014 12:24
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: e3,e7	
C9	114	70-130		08/02/2014 12:24

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-SB1	1408022-003A	Soil	07/31/2014	GC11B	93535

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	3400	50	50	08/04/2014 11:35
TPH-Motor Oil (C18-C36)	1500	250	50	08/04/2014 11:35
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: e1	
C9	129	70-130		08/04/2014 11:35

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
UST2-NB1	1408022-004A	Soil	07/31/2014	GC11B	93535

Analytes	Result	RL	DF	Date Analyzed
TPH-Diesel (C10-C23)	140	20	20	08/04/2014 17:04
TPH-Motor Oil (C18-C36)	420	100	20	08/04/2014 17:04
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: e7,e2	
C9	97	70-130		08/04/2014 17:04



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/4/14  
**Instrument:** O&G  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93576  
**Extraction Method:** SM5520E/F  
**Analytical Method:** SM5520E/F  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93576  
 1408022-002AMS/MSD

### QC Summary Report for SM5520E/F

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
POG	ND	1740	50	2000	-	87.3	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
POG	1840	1790	2000	ND	91.8	89.6	70-130	2.39	30



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 7/31/14  
**Date Analyzed:** 8/1/14  
**Instrument:** GC5A  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93498  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-93498  
 1407B54-001AMS/MSD

### QC Summary Report for SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.169	0.050	0.15	-	113	70-130
PCBs, total	ND	-	0.050	-	-	-	-

**Surrogate Recovery**

Decachlorobiphenyl	0.0545	0.0547		0.050	109	109	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	0.120	0.123	0.15	ND	80.1	82.3	70-130	2.71	30

**Surrogate Recovery**

Decachlorobiphenyl	0.0365	0.0374	0.050		73	75	70-130	2.41	30
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## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 7/31/14  
**Date Analyzed:** 8/4/14  
**Instrument:** ICP-MS2  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93503  
**Extraction Method:** SW3050B  
**Analytical Method:** SW6020  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93503  
 1407B66-003AMS/MSD

### QC Summary Report for SW6020

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Cadmium	ND	51.8	0.25	50	-	104	75-125
Chromium	ND	52.7	0.50	50	-	105	75-125
Lead	ND	54.1	0.50	50	-	108	75-125
Nickel	ND	51.8	0.50	50	-	104	75-125
Zinc	ND	518	5.0	500	-	104	75-125

**Surrogate Recovery**

Tb 350.917	524	512		500	105	102	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Cadmium	60.0	51.0	50	ND	120	102	75-125	16.2	20
Chromium	NR	NR	50	319.2	NR	NR	75-125	NR	20
Lead	64.3	53.8	50	1.987	125	104	75-125	17.8	20
Nickel	NR	NR	50	1506	NR	NR	75-125	NR	20
Zinc	594	519	500	32.93	112	97.2	75-125	13.5	20

**Surrogate Recovery**

Tb 350.917	590	502	500		118	100	70-130	16.1	20
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## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/4/14  
**Date Analyzed:** 8/4/14 - 8/5/14  
**Instrument:** GC5A  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93614  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8082  
**Unit:** mg/kg  
**Sample ID:** MB/LCS-93614  
 1408022-004AMS/MSD

### QC Summary Report for SW8082

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aroclor1016	ND	-	0.050	-	-	-	-
Aroclor1221	ND	-	0.050	-	-	-	-
Aroclor1232	ND	-	0.050	-	-	-	-
Aroclor1242	ND	-	0.050	-	-	-	-
Aroclor1248	ND	-	0.050	-	-	-	-
Aroclor1254	ND	-	0.050	-	-	-	-
Aroclor1260	ND	0.173	0.050	0.15	-	115	70-130
PCBs, total	ND	-	0.050	-	-	-	-

**Surrogate Recovery**

Decachlorobiphenyl	0.0519	0.0522		0.050	104	104	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aroclor1260	0.146	0.169	0.15	ND	97.5	112	70-130	14.2	30

**Surrogate Recovery**

Decachlorobiphenyl	0.0554	0.0605	0.050		111	121	70-130	8.92	30
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# Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 7/31/14  
**Date Analyzed:** 8/1/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93495  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93495  
 1407B54-001AMS/MSD

## QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acetone	ND	-	0.10	-	-	-	-
tert-Amyl methyl ether (TAME)	ND	0.0378	0.0050	0.050	-	75.7	61-115
Benzene	ND	0.0509	0.0050	0.050	-	102	75-126
Bromobenzene	ND	-	0.0050	-	-	-	-
Bromochloromethane	ND	-	0.0050	-	-	-	-
Bromodichloromethane	ND	-	0.0050	-	-	-	-
Bromoform	ND	-	0.0050	-	-	-	-
Bromomethane	ND	-	0.0050	-	-	-	-
2-Butanone (MEK)	ND	-	0.020	-	-	-	-
t-Butyl alcohol (TBA)	ND	0.169	0.050	0.20	-	84.6	63-125
n-Butyl benzene	ND	-	0.0050	-	-	-	-
sec-Butyl benzene	ND	-	0.0050	-	-	-	-
tert-Butyl benzene	ND	-	0.0050	-	-	-	-
Carbon Disulfide	ND	-	0.0050	-	-	-	-
Carbon Tetrachloride	ND	-	0.0050	-	-	-	-
Chlorobenzene	ND	0.0488	0.0050	0.050	-	97.5	80-118
Chloroethane	ND	-	0.0050	-	-	-	-
Chloroform	ND	-	0.0050	-	-	-	-
Chloromethane	ND	-	0.0050	-	-	-	-
2-Chlorotoluene	ND	-	0.0050	-	-	-	-
4-Chlorotoluene	ND	-	0.0050	-	-	-	-
Dibromochloromethane	ND	-	0.0050	-	-	-	-
1,2-Dibromo-3-chloropropane	ND	-	0.0040	-	-	-	-
1,2-Dibromoethane (EDB)	ND	0.0429	0.0040	0.050	-	85.7	74-121
Dibromomethane	ND	-	0.0050	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.0050	-	-	-	-
1,4-Dichlorobenzene	ND	-	0.0050	-	-	-	-
Dichlorodifluoromethane	ND	-	0.0050	-	-	-	-
1,1-Dichloroethane	ND	-	0.0050	-	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0441	0.0040	0.050	-	88.2	68-122
1,1-Dichloroethene	ND	0.0467	0.0050	0.050	-	93.3	65-138
cis-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
trans-1,2-Dichloroethene	ND	-	0.0050	-	-	-	-
1,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,3-Dichloropropane	ND	-	0.0050	-	-	-	-
2,2-Dichloropropane	ND	-	0.0050	-	-	-	-
1,1-Dichloropropene	ND	-	0.0050	-	-	-	-
cis-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-
trans-1,3-Dichloropropene	ND	-	0.0050	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 7/31/14  
**Date Analyzed:** 8/1/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93495  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93495  
 1407B54-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Diisopropyl ether (DIPE)	ND	0.0455	0.0050	0.050	-	91	68-117
Ethylbenzene	ND	-	0.0050	-	-	-	-
Ethyl tert-butyl ether (ETBE)	ND	0.0430	0.0050	0.050	-	86	67-116
Freon 113	ND	-	0.0050	-	-	-	-
Hexachlorobutadiene	ND	-	0.0050	-	-	-	-
Hexachloroethane	ND	-	0.0050	-	-	-	-
2-Hexanone	ND	-	0.0050	-	-	-	-
Isopropylbenzene	ND	-	0.0050	-	-	-	-
4-Isopropyl toluene	ND	-	0.0050	-	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.0433	0.0050	0.050	-	86.6	66-118
Methylene chloride	ND	-	0.0050	-	-	-	-
4-Methyl-2-pentanone (MIBK)	ND	-	0.0050	-	-	-	-
Naphthalene	ND	-	0.0050	-	-	-	-
n-Propyl benzene	ND	-	0.0050	-	-	-	-
Styrene	ND	-	0.0050	-	-	-	-
1,1,1,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
1,1,2,2-Tetrachloroethane	ND	-	0.0050	-	-	-	-
Tetrachloroethene	ND	-	0.0050	-	-	-	-
Toluene	ND	0.0514	0.0050	0.050	-	103	84-129
1,2,3-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,2,4-Trichlorobenzene	ND	-	0.0050	-	-	-	-
1,1,1-Trichloroethane	ND	-	0.0050	-	-	-	-
1,1,2-Trichloroethane	ND	-	0.0050	-	-	-	-
Trichloroethene	ND	0.0516	0.0050	0.050	-	103	82-130
Trichlorofluoromethane	ND	-	0.0050	-	-	-	-
1,2,3-Trichloropropane	ND	-	0.0050	-	-	-	-
1,2,4-Trimethylbenzene	ND	-	0.0050	-	-	-	-
1,3,5-Trimethylbenzene	ND	-	0.0050	-	-	-	-
Vinyl Chloride	ND	-	0.0050	-	-	-	-
Xylenes, Total	ND	-	0.0050	-	-	-	-

**Surrogate Recovery**

Dibromofluoromethane	0.111	0.158		0.18	89	90	80-120
Toluene-d8	0.122	0.168		0.18	97	96	80-120
4-BFB	0.0117	0.0152		0.018	93	87	80-120

(Cont.)





## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 7/31/14  
**Date Analyzed:** 8/1/14  
**Instrument:** GC10  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93495  
**Extraction Method:** SW5030B  
**Analytical Method:** SW8260B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93495  
 1407B54-001AMS/MSD

### QC Summary Report for SW8260B

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	0.0376	0.0401	0.050	ND	75.2	80.2	70-130	6.37	30
Benzene	0.0457	0.0477	0.050	ND	91.5	95.4	70-130	4.19	30
t-Butyl alcohol (TBA)	0.169	0.183	0.20	ND	84.3	91.6	70-130	8.20	30
Chlorobenzene	0.0426	0.0448	0.050	ND	85.2	89.6	70-130	5.09	30
1,2-Dibromoethane (EDB)	0.0408	0.0427	0.050	ND	81.5	85.4	70-130	4.66	30
1,2-Dichloroethane (1,2-DCA)	0.0385	0.0403	0.050	ND	77	80.6	70-130	4.58	30
1,1-Dichloroethene	0.0388	0.0405	0.050	ND	77.6	80.9	70-130	4.20	30
Diisopropyl ether (DIPE)	0.0424	0.0449	0.050	ND	84.8	89.9	70-130	5.76	30
Ethyl tert-butyl ether (ETBE)	0.0407	0.0429	0.050	ND	81.4	85.8	70-130	5.31	30
Methyl-t-butyl ether (MTBE)	0.0405	0.0431	0.050	ND	81	86.1	70-130	6.16	30
Toluene	0.0450	0.0479	0.050	ND	90.1	95.8	70-130	6.16	30
Trichloroethene	0.0448	0.0480	0.050	ND	89.6	96	70-130	6.89	30
<b>Surrogate Recovery</b>									
Dibromofluoromethane	0.155	0.160	0.18		89	91	70-130	2.93	30
Toluene-d8	0.159	0.160	0.18		91	92	70-130	0.610	30
4-BFB	0.0148	0.0155	0.018		85	88	70-130	4.38	30



# Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 7/31/14  
**Date Analyzed:** 7/31/14 - 8/1/14  
**Instrument:** GC21  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93482  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93482  
 1407B20-001AMS/MSD

## QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Acenaphthene	ND	2.99	0.25	5	-	59.7	30-130
Acenaphthylene	ND	-	0.25	-	-	-	-
Acetochlor	ND	-	0.25	-	-	-	-
Anthracene	ND	-	0.25	-	-	-	-
Benzidine	ND	-	1.3	-	-	-	-
Benzo (a) anthracene	ND	-	0.25	-	-	-	-
Benzo (b) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (k) fluoranthene	ND	-	0.25	-	-	-	-
Benzo (g,h,i) perylene	ND	-	0.25	-	-	-	-
Benzo (a) pyrene	ND	-	0.25	-	-	-	-
Benzyl Alcohol	ND	-	1.3	-	-	-	-
1,1-Biphenyl	ND	-	0.25	-	-	-	-
Bis (2-chloroethoxy) Methane	ND	-	0.25	-	-	-	-
Bis (2-chloroethyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-chloroisopropyl) Ether	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Adipate	ND	-	0.25	-	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	-	0.25	-	-	-	-
4-Bromophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Butylbenzyl Phthalate	ND	-	0.25	-	-	-	-
4-Chloroaniline	ND	-	0.25	-	-	-	-
4-Chloro-3-methylphenol	ND	3.80	0.25	5	-	75.9	30-130
2-Chloronaphthalene	ND	-	0.25	-	-	-	-
2-Chlorophenol	ND	3.75	0.25	5	-	75	30-130
4-Chlorophenyl Phenyl Ether	ND	-	0.25	-	-	-	-
Chrysene	ND	-	0.25	-	-	-	-
Dibenzo (a,h) anthracene	ND	-	0.25	-	-	-	-
Dibenzofuran	ND	-	0.25	-	-	-	-
Di-n-butyl Phthalate	ND	-	0.25	-	-	-	-
1,2-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,3-Dichlorobenzene	ND	-	0.25	-	-	-	-
1,4-Dichlorobenzene	ND	3.03	0.25	5	-	60.6	30-130
3,3-Dichlorobenzidine	ND	-	0.50	-	-	-	-
2,4-Dichlorophenol	ND	-	0.25	-	-	-	-
Diethyl Phthalate	ND	-	0.25	-	-	-	-
2,4-Dimethylphenol	ND	-	0.25	-	-	-	-
Dimethyl Phthalate	ND	-	0.25	-	-	-	-
4,6-Dinitro-2-methylphenol	ND	-	1.3	-	-	-	-
2,4-Dinitrophenol	ND	-	6.3	-	-	-	-
2,4-Dinitrotoluene	ND	3.32	0.25	5	-	66.4	30-130
2,6-Dinitrotoluene	ND	-	0.25	-	-	-	-

(Cont.)



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 7/31/14  
**Date Analyzed:** 7/31/14 - 8/1/14  
**Instrument:** GC21  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93482  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93482  
 1407B20-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Di-n-octyl Phthalate	ND	-	0.50	-	-	-	-
1,2-Diphenylhydrazine	ND	-	0.25	-	-	-	-
Fluoranthene	ND	-	0.25	-	-	-	-
Fluorene	ND	-	0.25	-	-	-	-
Hexachlorobenzene	ND	-	0.25	-	-	-	-
Hexachlorobutadiene	ND	-	0.25	-	-	-	-
Hexachlorocyclopentadiene	ND	-	1.3	-	-	-	-
Hexachloroethane	ND	-	0.25	-	-	-	-
Indeno (1,2,3-cd) pyrene	ND	-	0.25	-	-	-	-
Isophorone	ND	-	0.25	-	-	-	-
2-Methylnaphthalene	ND	-	0.25	-	-	-	-
2-Methylphenol (o-Cresol)	ND	-	0.25	-	-	-	-
3 &/or 4-Methylphenol (m,p-Cresol)	ND	-	0.25	-	-	-	-
Naphthalene	ND	-	0.25	-	-	-	-
2-Nitroaniline	ND	-	1.3	-	-	-	-
3-Nitroaniline	ND	-	1.3	-	-	-	-
4-Nitroaniline	ND	-	1.3	-	-	-	-
Nitrobenzene	ND	-	0.25	-	-	-	-
2-Nitrophenol	ND	-	1.3	-	-	-	-
4-Nitrophenol	ND	2.67	1.3	5	-	53.4	30-130
N-Nitrosodiphenylamine	ND	-	0.25	-	-	-	-
N-Nitrosodi-n-propylamine	ND	3.17	0.25	5	-	63.4	30-130
Pentachlorophenol	ND	3.06	1.3	5	-	61.1	30-130
Phenanthrene	ND	-	0.25	-	-	-	-
Phenol	ND	3.59	0.25	5	-	71.9	30-130
Pyrene	ND	3.32	0.25	5	-	66.3	30-130
1,2,4-Trichlorobenzene	ND	3.49	0.25	5	-	69.7	30-130
2,4,5-Trichlorophenol	ND	-	0.25	-	-	-	-
2,4,6-Trichlorophenol	ND	-	0.25	-	-	-	-

#### Surrogate Recovery

2-Fluorophenol	4.66	3.35		5	93	67	30-130
Phenol-d5	4.45	3.19		5	89	64	30-130
Nitrobenzene-d5	4.76	3.37		5	95	67	30-130
2-Fluorobiphenyl	4.15	2.87		5	83	57	30-130
2,4,6-Tribromophenol	2.22	1.79		5	44	36	16-130
4-Terphenyl-d14	4.55	3.32		5	91	66	30-130

(Cont.)



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 7/31/14  
**Date Analyzed:** 7/31/14 - 8/1/14  
**Instrument:** GC21  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93482  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8270C  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93482  
 1407B20-001AMS/MSD

### QC Summary Report for SW8270C

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acenaphthene	NR	NR	0	ND<4	NR	NR	-	NR	
4-Chloro-3-methylphenol	NR	NR	0	ND<4	NR	NR	-	NR	
2-Chlorophenol	NR	NR	0	ND<4	NR	NR	-	NR	
1,4-Dichlorobenzene	NR	NR	0	ND<4	NR	NR	-	NR	
2,4-Dinitrotoluene	NR	NR	0	ND<4	NR	NR	-	NR	
4-Nitrophenol	NR	NR	0	ND<21	NR	NR	-	NR	
N-Nitrosodi-n-propylamine	NR	NR	0	ND<4	NR	NR	-	NR	
Pentachlorophenol	NR	NR	0	ND<21	NR	NR	-	NR	
Phenol	NR	NR	0	ND<4	NR	NR	-	NR	
Pyrene	NR	NR	0	ND<4	NR	NR	-	NR	
1,2,4-Trichlorobenzene	NR	NR	0	ND<4	NR	NR	-	NR	

#### Surrogate Recovery

2-Fluorophenol	NR	NR	0		NR	NR	-	NR	
Phenol-d5	NR	NR	0		NR	NR	-	NR	
Nitrobenzene-d5	NR	NR	0		NR	NR	-	NR	
2-Fluorobiphenyl	NR	NR	0		NR	NR	-	NR	
2,4,6-Tribromophenol	NR	NR	0		NR	NR	-	NR	
4-Terphenyl-d14	NR	NR	0		NR	NR	-	NR	



## Quality Control Report

<b>Client:</b> SCA Enviromental, Inc.	<b>WorkOrder:</b> 1408022
<b>Date Prepared:</b> 7/31/14	<b>BatchID:</b> 93483
<b>Date Analyzed:</b> 8/1/14	<b>Extraction Method:</b> SW5030B
<b>Instrument:</b> GC19	<b>Analytical Method:</b> SW8021B/8015Bm
<b>Matrix:</b> Soil	<b>Unit:</b> mg/Kg
<b>Project:</b> #11167 Task4; HACA UST Services	<b>Sample ID:</b> MB/LCS-93483

### QC Summary Report for SW8021B/8015Bm

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH(btex)	ND	0.604	0.40	0.60	-	101	70-130
MTBE	ND	0.106	0.050	0.10	-	106	70-130
Benzene	ND	0.112	0.0050	0.10	-	112	70-130
Toluene	ND	0.115	0.0050	0.10	-	115	70-130
Ethylbenzene	ND	0.113	0.0050	0.10	-	113	70-130
Xylenes	ND	0.363	0.0050	0.30	-	121	70-130
<b>Surrogate Recovery</b>							
2-Fluorotoluene	0.108	0.109		0.10	108	109	70-130



## Quality Control Report

**Client:** SCA Enviromental, Inc.  
**Date Prepared:** 8/1/14  
**Date Analyzed:** 8/2/14 - 8/3/14  
**Instrument:** GC9a  
**Matrix:** Soil  
**Project:** #11167 Task4; HACA UST Services

**WorkOrder:** 1408022  
**BatchID:** 93535  
**Extraction Method:** SW3550B  
**Analytical Method:** SW8015B  
**Unit:** mg/Kg  
**Sample ID:** MB/LCS-93535  
 1408022-004AMS/MSD

### QC Summary Report for SW8015B

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
TPH-Diesel (C10-C23)	ND	43.8	1.0	40	-	109	70-130
<b>Surrogate Recovery</b>							
C9	26.3	26.0		25	105	104	70-130

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
TPH-Diesel (C10-C23)	NR	NR	0	140	NR	NR	-	NR	
<b>Surrogate Recovery</b>									
C9	NR	NR	0		NR	NR	-	NR	

1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 1408022

ClientCode: SCAO

WaterTrax    WriteOn    EDF    Excel    EQulS    Email    HardCopy    ThirdParty    J-flag

**Report to:**

Glenn Young  
SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612  
(510) 645-6200   FAX: (510) 839- 6200

Email: gyoung@sca-enviro.com  
cc/3rd Party:  
PO:  
ProjectNo: #11167 Task4; HACA UST Services

**Bill to:**

Accounts Payable  
SCA Enviromental, Inc.  
334 19th Street  
Oakland, CA 94612  
emuisse@sca-ic.com

**Requested TAT:**

**2 days**

*Date Received:*    **08/01/2014**

*Date Printed:*      **08/01/2014**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1408022-001	UST1-SB1	Soil	7/31/2014	<input type="checkbox"/>	A	A	A	A	A	A						
1408022-002	UST1-NB1	Soil	7/31/2014	<input type="checkbox"/>	A	A	A	A	A	A						
1408022-003	UST2-SB1	Soil	7/31/2014	<input type="checkbox"/>	A	A	A	A	A	A						
1408022-004	UST2-NB1	Soil	7/31/2014	<input type="checkbox"/>	A	A	A	A	A	A						

**Test Legend:**

1	5520E_SG_S	2	8082A_PCB_S	3	8260B_S	4	8270D_S	5	G-MBTEX_S
6	LUFTMS_S	7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A contain testgroup.

**Prepared by: Maria Venegas**

**Comments:**    2 Day TAT

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



## WORK ORDER SUMMARY

**Client Name:** SCA ENVIROMENTAL, INC.  
**Project:** #11167 Task4; HACA UST Services  
**Comments:** 2 Day TAT

**QC Level:** LEVEL 2  
**Client Contact:** Glenn Young  
**Contact's Email:** gyoung@sca-enviro.com

**Work Order:** 1408022  
**Date Received:** 8/1/2014

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut	
1408022-001A	UST1-SB1	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube (2x6 Liner)	<input type="checkbox"/>	7/31/2014	2 days			<input type="checkbox"/>	
			SW6020 (LUFT)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SW8082 (PCBs Only)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SM5520B (O&G w/ S.G. Clean-Up)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
1408022-002A	UST1-NB1	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube (2x6 Liner)	<input type="checkbox"/>	7/31/2014	2 days			<input type="checkbox"/>	
			SW6020 (LUFT)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SW8082 (PCBs Only)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SM5520B (O&G w/ S.G. Clean-Up)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
1408022-003A	UST2-SB1	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube (2x6 Liner)	<input type="checkbox"/>	7/31/2014	2 days			<input type="checkbox"/>	
			SW6020 (LUFT)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SW8270C (SVOCs)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SW8260B (VOCs)			<input type="checkbox"/>					2 days	<input type="checkbox"/>
			SW8082 (PCBs Only)			<input type="checkbox"/>					2 days	<input type="checkbox"/>

**\* NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

**Bottle Legend:**

Stainless Tube (2x6 Liner) =





## WORK ORDER SUMMARY

**Client Name:** SCA ENVIROMENTAL, INC.  
**Project:** #11167 Task4; HACA UST Services  
**Comments:** 2 Day TAT

**QC Level:** LEVEL 2  
**Client Contact:** Glenn Young  
**Contact's Email:** gyoung@sca-enviro.com

**Work Order:** 1408022  
**Date Received:** 8/1/2014

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1408022-003A	UST2-SB1	Soil	SM5520B (O&G w/ S.G. Clean-Up)	1	Stainless Tube (2x6 Liner)	<input type="checkbox"/>	7/31/2014	2 days		<input type="checkbox"/>	
1408022-004A	UST2-NB1	Soil	Multi-Range TPH(g,d,mo)	1	Stainless Tube (2x6 Liner)	<input type="checkbox"/>	7/31/2014	2 days		<input type="checkbox"/>	
			SW6020 (LUFT)			<input type="checkbox"/>		2 days		<input type="checkbox"/>	
			SW8270C (SVOCs)			<input type="checkbox"/>		2 days		<input type="checkbox"/>	
			SW8260B (VOCs)			<input type="checkbox"/>		2 days		<input type="checkbox"/>	
			SW8082 (PCBs Only)			<input type="checkbox"/>		2 days		<input type="checkbox"/>	
			SM5520B (O&G w/ S.G. Clean-Up)			<input type="checkbox"/>		2 days		<input type="checkbox"/>	

**\* NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

**Bottle Legend:**

Stainless Tube (2x6 Liner) =





### Sample Receipt Checklist

Client Name: **SCA Enviromental, Inc.** Date and Time Received: **8/1/2014 1:08:36 PM**  
 Project Name: **#11167 Task4; HACA UST Services** LogIn Reviewed by: **Maria Venegas**  
 WorkOrder No: **1408022** Matrix: Soil Carrier: Rob Pringle (MAI Courier)

#### Chain of Custody (COC) Information

Chain of custody present? Yes  No   
 Chain of custody signed when relinquished and received? Yes  No   
 Chain of custody agrees with sample labels? Yes  No   
 Sample IDs noted by Client on COC? Yes  No   
 Date and Time of collection noted by Client on COC? Yes  No   
 Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes  No  NA   
 Shipping container/cooler in good condition? Yes  No   
 Samples in proper containers/bottles? Yes  No   
 Sample containers intact? Yes  No   
 Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No   
 Container/Temp Blank temperature Cooler Temp: 4.6°C NA   
 Water - VOA vials have zero headspace / no bubbles? Yes  No  NA   
 Sample labels checked for correct preservation? Yes  No   
 pH acceptable upon receipt (Metal: pH<2; 522: pH<4)? Yes  No  NA   
 Samples Received on Ice? Yes  No


(Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----  
 Comments:

APPENDIX D  
UNAUTHORIZED RELEASE FORM

## UNDERGROUND STORAGE TANK (UST) SITE - UNAUTHORIZED RELEASE / CONTAMINATION REPORT

EMERGENCY <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>FOR LOCAL AGENCY USE ONLY</b> I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNMENT EMPLOYEE AND THAT I HAVE REPORTED THIS INFORMATION TO LOCAL OFFICIALS PURSUANT TO SECTION 25180.7 OF THE HEALTH AND SAFETY CODE.  SIGNED _____ DATE _____	
REPORT DATE 8/6/2014		CASE #			
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT <b>Glenn Young, PG</b>		PHONE <b>510.555.5574</b>		SIGNATURE 
	REPRESENTING <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> REGIONAL BOARD <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME <b>SCA Environmental Inc</b>		
	ADDRESS <b>334 19<sup>th</sup> Street</b> <b>Oakland</b> <b>CA</b> <b>94612</b> <small>STREET CITY STATE ZIP</small>				
RESPONSIBLE PARTY	NAME <b>Housing Authority of the County of Alameda</b> <input type="checkbox"/> Unk		CONTACT PERSON <b>George Smith, Jr.</b>		PHONE <b>(510)727-8510</b>
	ADDRESS <b>1489 Salmon Way</b> <b>Hayward</b> <b>CA</b> <b>94544</b> <small>STREET CITY STATE ZIP</small>				
SITE LOCATION	FACILITY NAME (IF APPLICABLE) <b>Housing Authority of the County of Alameda (HACA)</b>		OPERATOR <b>HACA</b>		PHONE <b>(510) 727-8510</b>
	ADDRESS <b>22941 Atherton Street</b> <b>Hayward</b> <b>Alameda</b> <b>94541</b> <small>STREET CITY COUNTY ZIP</small>				
	CROSS STREET <b>Jackson Street</b>				
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME <b>City of Hayward Fire Department</b>				PHONE <b>(510) 583-4900</b>
	REGIONAL BOARD <b>San Francisco Bay Regional Water Quality Control Board</b>				PHONE <b>(510) 622-2300</b>
SUBSTANCES INVOLVED	(1) NAME		QUANTITY LOST (GALLONS)		
	<b>Soil impacted with aged diesel from former UST operations</b>		<input checked="" type="checkbox"/> Unknown		
DISCOVERY/ABATEMENT	DATE DISCOVERED <b>7/31/2014</b>		HOW DISCOVERED <input type="checkbox"/> Tank Test <input checked="" type="checkbox"/> Tank Removal <input type="checkbox"/> Nuisance Conditions <input type="checkbox"/> Inventory Control <input type="checkbox"/> Subsurface Monitoring <input type="checkbox"/> Other		
	DATE DISCHARGE BEGAN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)		
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No IF YES, DATE <b>7/31/2014</b>		<input type="checkbox"/> Remove Contents <input checked="" type="checkbox"/> Close Tank <input type="checkbox"/> Repair Tank <input type="checkbox"/> Change Procedure <input type="checkbox"/> Replace Tank <input type="checkbox"/> Other <input type="checkbox"/> Repair Piping		
SOURCE/ CAUSE	SOURCE OF DISCHARGE		CAUSE(S)		
	<input checked="" type="checkbox"/> Tank <input type="checkbox"/> Piping <input type="checkbox"/> Dispenser <input type="checkbox"/> Delivery Problem <input type="checkbox"/> Submersible Turbine Pump (STP) <input type="checkbox"/> Other		<input type="checkbox"/> Spill <input checked="" type="checkbox"/> Overfill <input type="checkbox"/> Physical/Mechanical Damage <input type="checkbox"/> Corrosion <input type="checkbox"/> Installation Problem <input checked="" type="checkbox"/> Unknown <input type="checkbox"/> Other		
CASE TYPE	CHECK ONE ONLY <input checked="" type="checkbox"/> Undetermined <input type="checkbox"/> Soil Only <input type="checkbox"/> Groundwater <input type="checkbox"/> Drinking Water – (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)				
CURRENT STATUS	CHECK ONE ONLY <input checked="" type="checkbox"/> Open - Site Assessment <input type="checkbox"/> Open - Verification Monitoring <input type="checkbox"/> Open - Assessment & Interim Remedial Action <input type="checkbox"/> Open - Inactive <input type="checkbox"/> Open - Remediation <input type="checkbox"/> Closed – No Further Action Required				
REMEDIAL ACTION	CHECK APPROPRIATE ACTION(S) Human health exposure control? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown Groundwater migration control? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown  <input type="checkbox"/> No Action Required (NAR) <input type="checkbox"/> Excavate & Treat (ET) <input type="checkbox"/> Treatment at Hookup (TH) <input checked="" type="checkbox"/> Other <input checked="" type="checkbox"/> Excavate & Dispose (ED) <input type="checkbox"/> Free Product Removal (FPR) <input type="checkbox"/> Replace Supply (RS)				

COMMENTS	<p>A total of 4 USTs were encountered. Two 1,000 gallon and one 1,500 gallon UST were removed and disposed in accordance with Hayward Fire Department protocols. The fourth UST (10,500 gallons) extends under the existing building foundation so was closed in-place using lightweight concrete to avoid damaging the existing structure.</p> <p>Aged petroleum impacts to soil were observed during UST removal. USTs contained no fuel. No groundwater was encountered and no free phase hydrocarbons were observed during UST removal.</p>
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### Instructions for Completing UST Unauthorized Release (Leak) / Contamination Site Report

**EMERGENCY:** Indicate whether emergency response personnel and equipment were involved at any time. If so, a Hazardous Material Incident Report should be filed with the State Office of Emergency Services (OES). Indicate whether the OES report has been filed as of the date of this report.

**LOCAL AGENCY USE ONLY:** To avoid duplicate notifications pursuant to Health and safety Code Section 25180.7, a designated government employee should sign and date the form in this block. A signature here does not mean that the leak has been determined to pose a significant threat to human health or safety, only that notification procedures have been followed if required.

**REPORTED BY:** Enter name, telephone number, and address. Indicate which party you represent and provide company or agency name.

**SIGNATURE:** Sign the form in the space provided.

**RESPONSIBLE PARTY:** Enter the name, telephone number, contact person, and address of the party responsible for the leak. The Responsible Party would normally be the tank owner.

**SITE LOCATION:** Enter information regarding the tank facility. At a minimum, you must provide the facility name and full site address.

**IMPLEMENTING AGENCIES:** Enter the names of the local agency and Regional Water Quality Control Board having jurisdiction over the site.

**SUBSTANCES INVOLVED:** Enter the name and quantity lost of the hazardous substance(s) involved. If more than two substances leaked, list the two of most concern for cleanup.

**DISCOVERY/ABATEMENT:** Provide information regarding the discovery and abatement of the leak.

**SOURCE:** Indicate the source(s) of the leak. Check sourc(es) that apply.

**CAUSE:** Check box(es) that apply. Only use "other" when the release source is known, but does not fit into any of the other categories. For example releases from vent and vapor recovery lines.

**CASE TYPE:** Check one box only. Indicate the Case Type category for this leak. Case Type is based on the most sensitive resource affected. For example, if both soil and ground water have been affected, Case Type will be "Groundwater." Indicate "Drinking Water" only if one or more municipal or domestic water wells have actually been affected. A "Groundwater" designation does not imply that the affected water cannot be, or is not, used for drinking water, but only that water wells have not yet been affected. It is understood that Case Type may change upon further investigation.

**CURRENT STATUS:** Check one box only. Indicate the category which best describes the Current Status of the case. The response should be relative to the Case Type. For example, if the Case Type is "Groundwater," then Current Status should refer to the status of the ground water investigation or cleanup, as opposed to that of soil. Descriptions of options are as follows:

- **Open- Site Assessment** – An investigation to determine whether groundwater and/or soil have/has been, or will be, impacted as a result of the release.
- **Open- Assessment & Interim Remedial Action** – An investigation to determine whether groundwater and/or soil have/has been, or will be, impacted as a result of the release and appropriate actions to prevent or address an immediate threat to human health or the environment.
- **Open- Remediation** – Remedial activities to prevent or address a threat to human health or the environment as a result of the release.
- **Open- Verification Monitoring** – Periodic groundwater or other monitoring at the site to verify and/or evaluate the effectiveness of remedial activities.
- **Open- Inactive** – No activities have been implemented to determine whether groundwater and/or soil were/was impacted by the release.
- **Closed- No Further Action Required** – Regional Water Quality Control Board and local agency Local Oversight Program agree that no further work is necessary at the site.

IMPORTANT: THE INFORMATION PROVIDED ON THIS FORM IS INTENDED FOR GENERAL STATISTICAL PURPOSES ONLY AND IS NOT TO BE CONSTRUED AS REPRESENTING THE OFFICIAL POSITION OF ANY GOVERNMENTAL AGENCY.

**REMEDIAL ACTION:** Indicate which actions have been used to clean up or remediate the leak. Descriptions of options are as follows:

- **Human health exposure control? Yes** – Assessments for human exposures indicate there are no unacceptable human exposure pathways and the Regional Water Quality Control Board or other regulatory agency staff has determined the site is under control for current conditions.
- **Human health exposure control? No** – Data indicate that there are complete human exposures pathways that present unacceptable exposures to humans, and actions have yet to be completed to address these human exposure pathways for the entire site.
- **Human health exposure control? Unknown** – There is not sufficient information to determine whether there are any current, complete unacceptable human exposure pathways at the site.
- **Groundwater migration control? Yes** – All information on known and reasonably expected groundwater contamination has been reviewed and that the migration of contaminated groundwater is stabilized and there is no unacceptable discharge to surface water and monitoring will be conducted to confirm that affected groundwater remains in the original area of contamination.
- **Groundwater migration control? No** – All information on known and reasonably expected groundwater contamination has been reviewed and that the migration of contaminated groundwater is not stabilized.
- **Groundwater migration control? Unknown** – There is not sufficient information to determine whether the migration of contaminated groundwater is stabilized.
- **No Action Required (NAR)** – Incident is minor, requiring no remedial action.
- **Excavate and Dispose (ED)** – Remove contaminated soil and dispose at approved facility.

- **Excavate and Treat (ET)** – Remove contaminated soil and treat (includes spreading or land farming).
- **Free Product Removal (FPR)** – Remove floating product from water table.
- **Treatment at Hookup (TH)** – Install water treatment devices at each dwelling or other place of use.
- **Replace Supply (RS)** – Provide alternate water supply to affected parties.
- **Other** – Other remedial actions that are not listed above.

**COMMENTS:** Use this space to elaborate on any aspects of the incident.

**DISTRIBUTION:** If this form is completed by the tank owner or his/her agent, retain a copy and forward the original to your local tank permitting agency for distribution.

- Original – Local UST permitting agency. (Agency contact information is available at <http://www.calcupa.net/services/directory/search.asp>.)
- Copy – Regional Water Quality Control Board. (Boundaries and contact information are available at [http://www.waterboards.ca.gov/waterboards\\_map.shtml](http://www.waterboards.ca.gov/waterboards_map.shtml).)
- Copy – Local Oversight Program (LOP) agency. (Agency contact information is available at [http://www.waterboards.ca.gov/water\\_issues/programs/ust/contacts/lop.shtml](http://www.waterboards.ca.gov/water_issues/programs/ust/contacts/lop.shtml).)
- Copy – Local Health Officer and County Board of Supervisors or their designee to receive Proposition 65 notifications.
- Copy – Owner/Responsible Party.