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April 14, 2016

Mr. Martin Musonge Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, California 94612

Subject: File No. 01-0098 (MYM)

Site Located at 2844 Mountain Boulevard, Oakland, California

Dear Mr. Musonge:

Enclosed for your review is SOMA's "Additional Investigation Report" for the subject property. It has been uploaded to the State's GeoTracker database and the Alameda County's FTP site.

Thank you for your time in reviewing our report. Please do not hesitate to call me at (925) 734-6400, if you have any questions or comments.

Sincerely,

Mansour Sepehr, Ph.D., PE Principal Hydrogeologist

Enclosure

cc: Mr. Tejindar Singh w/enclosure



Additional Site Investigation Report

2844 Mountain Boulevard Oakland, California

April 14, 2016

Project 5082

Prepared for:

Mr. Tejindar P. Singh 6400 Dublin Blvd. Dublin, California

PERJURY STATEMENT

Site Location: 2844 Mountain Boulevard, Oakland, California

"I declare under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge".

Tejindar Singh

6400 Dublin Boulevard Dublin, California 94568

Responsible Party

CERTIFICATION

SOMA Environmental Engineering, Inc. has prepared this report on behalf of Mr. Tejindar P. Singh for the site located at 2844 Mountain Blvd., Oakland, California. The report was prepared in compliance with the correspondence from San Francisco Bay Regional Water Quality Control Board (SFB-RWQCB) dated February 11, 2016.

Mansour Sepehr, PhD, PE Principal Hydrogeologist



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1. INTRODUCTION

SOMA Environmental Engineering, Inc. (SOMA) has prepared this report on behalf of Mr. Tejindar P. Singh for the site located at 2844 Mountain Blvd., Oakland, California. The report was prepared in compliance with the correspondence from San Francisco Bay Regional Water Quality Control Board (SFB-RWQCB) dated February 11, 2016. This report includes the results of additional investigation conducted at the site from March 14 through March 16, 2016 for delineation of horizontal and vertical extent of MtBE and TBA contamination at the in and off-site areas.

The subject property is located in Alameda County, California. Figure 1 shows the location of the site and vicinity. The site is located on the eastern corner of the intersection of Mountain Boulevard and Werner Court in a commercial/residential area (Figure 2). The Warren Freeway is adjacent to Mountain Boulevard, and lies approximately 50 feet southwest of the site. The historical underground storage tanks (USTs), installed in 1994, contained various grades of unleaded gasoline and diesel and had individual storage capacities of 3,000, 4,000, and 10,000 gallons. In August 2011, under SOMA's oversight, the two remaining USTs were removed and disposed of off-site. UST removal activities are documented in SOMA's report dated September 14, 2011.

Since May 2013, the site building is being used as a bookstore.

1.1 Geologic and Hydrogeologic Conditions

The site is located in the eastern portion of the greater Oakland area approximately 6 miles inland from the San Francisco Bay. The site and the surrounding area is approximately one quarter mile southwest of Palo Seco Creek and is located on a slight gradient that slopes towards the southwest (Figure 1). Upper San Leandro reservoir is located approximately 3.5 mile east of the site. According to the USGS 7.5 minute series quadrangle for the Oakland East area, the subject property is at an elevation of approximately 700 feet above mean sea level (msl).

The site lies east of the Alameda Bay Plain hydrologic subarea of the East San Francisco Bay Hydrologic study area. Small lenses of perched groundwater may lie beneath portions of this hydrologic area. Regional groundwater flow direction is expected to be southwesterly toward the Bay.

According to the Geologic Map of the San Francisco-San Jose Quadrangle (1990, Map 5A, California Division of Mines & Geology), the site is situated within the active Hayward Fault Zone. The fault is part of a northwest trending zone locally consisting of "slivers" or small blocks of bedrock. The rocks include

Jurassic and Cretaceous-age ultramafic crystalline rocks and rhyolite of the Coast Range Ophiolite, marine sandstone and shale, and Franciscan complex rocks. The weathering of these rocks typically yields clayey soil.

According to the RSI Corrective Action Plan report, dated February 3, 1995, the saturated sediments beneath the site are primarily comprised of fine-grained materials which are not capable of transmitting significant amount water to the wells. According to the above referenced report, the maximum extraction rate for groundwater extraction was less than 0.32 gallons per minute. Reportedly, this low extraction rate is insufficient for effective groundwater treatment; no data in support of this statement was available for review.

According to historical site reports (1995), the nearest well utilized for beneficial use, is located approximately 2200 feet southwest from the site (4315 Lincoln Ave, Oakland, CA) and is installed to the total depth of 260 feet bgs (depth to water at 240 feet bgs); this well is utilized for irrigation. No updated sensitive receptor survey was conducted at this time since it was not within the scope of this investigation.

During the previous CPT/MIP investigation at least two water bearing zones (WBZs) were present beneath the site. All existing site wells are screened from 5 to 20-25 feet bgs in what was previously designated as Perched WBZ. During the CPT/MIP investigation, groundwater samples were also collected from approximately 48 feet bgs from a lower WBZ which was designated as First WBZ.

Sediments encountered during previous drilling activities consisted predominantly of sandy clay, silty clay, sandy clay with gravel, as well as some small sandy gravel stringers. Groundwater was not consistently seen in the soil borings and was very slow to recover. During the recent investigation the Shallow perched zone was not present at DPT-9. Again it seems that the shallow perched zone is discontinuous and at the southeastern direction it does not exist.

The upper portion of the previously explored interval is composed of sandy clay with some gravel extending to a depth of approximately 32 feet bgs. Existing on-site groundwater monitoring wells are completed to 20 or 25 feet bgs. Underlying soils have been found to be comprised of sandy clay extending from approximately 32 to 36 feet bgs. Small hardpan areas (identified as very stiff fine grained material during CPT drilling) were observed on CPT logs - at 38 to 39 feet bgs and 47 to 48 feet bgs in CPT/MIP-1, and 31 to 32 feet bgs in CPTMIP-2). Beneath this very stiff and fine-grained layer the lithology is composed mostly of sandy clay (with some gravel) extending from approximately 36 to 50 feet bgs. Figure 3 illustrates locations of geologic cross-sections and Figures 4 through 6 illustrate geologic cross-sections AA', BB', and CC', respectively.

2. SCOPE OF WORK

The purpose of this investigation was to delineate the current extent of MtBE and TBA in the subsurface. Therefore, SOMA advanced four soil and groundwater borings during this investigation. One boring was advanced on-site (DPT-6) and three borings (DPT-7 through DPT-9) were advanced on Mountain Blvd, downgradient from the site.

Details of the tasks listed below are discussed in the following sections of this report.

- Task 1: Permit acquisition, Health and Safety Plan preparation, and subsurface utility clearance
- Task 2: Advancement of 4 Soil Borings
- Task 3: Laboratory analysis of soil and groundwater samples
- Task 4: Waste disposal

2.1 Permit Acquisition, Health and Safety Plan Preparation, and Subsurface Utility Clearance

Prior to initiating field activities, SOMA obtained a drilling permit from Alameda County Public Works Agency (ACPWA). In addition to drilling permit, excavation and obstruction permits were obtained from the City of Oakland since three borings were to be advanced in the public right of way. Furthermore SOMA prepared a traffic control plan which was submitted to the City of Oakland Transportation Services Division for approval. In accordance with permit requirements, "no parking" signs were posted 72 hours in advance of drilling. Permits and permit-related documentation is included in Appendix A.

Lindsay Furuyama from ACPWA was contacted on March 8, 2016 to schedule the grouting inspection which was conducted by Jose Ambriz. On March 9, 2016, written drilling notification was emailed to ACEHS.

During field implementation activities, SOMA followed standard Health and Safety Plan (HASP) procedures. The HASP is a requirement of the Occupational Safety and Health Administration (OSHA), "Hazardous Waste Operation and Emergency Response" guidelines (29 CFR 1910.120) and the California Occupational Safety and Health Administration (Cal/OSHA) "Hazardous Waste Operation and Emergency Response" guidelines (CCR Title 8, section 5192). The HASP is designed to address safety provisions during field activities and protect the field crew from physical and chemical hazards resulting from drilling and sampling. It establishes personnel responsibilities, general safe work practices, field procedures, personal protective equipment standards,

decontamination procedures, and emergency action plans. Field staff and contractors reviewed and signed the HASP prior to beginning field operations.

On March 9, 2016, prior to boring advancement activities, SOMA's field crew visited the site and marked proposed well locations using chalk-based white paint. Underground Service Alert (USA) clearance verifying that drilling areas were clear of underground utilities was obtained on the same day (Ticket 118334 and 118342). Additionally, a private utility locator (OHJ) surveyed proposed drilling areas to locate any additional subsurface conduits.

2.2 Advancement of Soil Borings

From March 14 Through March 16, 2016, a C-57 licensed driller, Cascade Drilling, L.P. (under SOMA's oversight) advanced four soil borings (DPT-6 through DPT-9) for collection of soil and groundwater samples. DPT 7 through DPT-9 were drilled along the Mountain Boulevard, while DPT-6 was drilled onsite next to the former USTs. Boring locations are shown in Figure 2. Borings were advanced approximately 54 to 56 feet below ground surface (bgs).

Direct Push Technology (DPT) was utilized for the borings. DPT is an efficient method of collecting continuous soil cores while preventing cross-contamination. It involves hydraulically hammering a set of steel rods into the subsurface with the lead section consisting of a polyethylene-lined sampler. After drilling rods are pushed to the desired depth, the soil-filled liner is retrieved. SOMA's field geologist logged continuous soil cores from advanced borings, characterizing the content of each soil-filled tube using the Unified Soil Classification System (USCS) Visual-Manual method. Encountered subsurface lithologies were recorded on geologic borehole logs. Contents of each sediment-filled tube were screened with a photoionization detector (PID) at each screened depth and results noted on respective boring logs (Appendix B).

For vertical definition, soil samples were collected at depths where soil contamination was observed, or where PID readings or visual observations indicated presence of significant soil contamination, or at significant changes in lithology. At each interval of depth-discrete soil sampling, the DPT drilling rig obtained a 4-foot soil sample core. For soil sample collection, SOMA's field geologist cut sections of the soil-filled tubes into 6-inch-long sections and capped each end with a Teflon liner and polyethylene end cap. Samples were labeled with unique identifiers and immediately placed in a chilled ice chest pending transportation to Curtis & Tompkins, Ltd. (C&T), a California state-certified environmental laboratory.

A minimum of one soil sample was analyzed from each soil boring, samples submitted for analyses were selected based on their discoloration or change in lithology. PID readings during drilling operation were generally low to non-detect.

Observed subsurface soils consisted of sandy lean clays and clayey sands. Encountered subsurface lithologies were recorded on geologic borehole logs. The contents of each sediment-filled tube were screened using a PID at each screened depth and results were noted on respective boring logs. PID responds to all molecules with ionization potential below 10.6eV, including aromatics and molecules with carbon double bonds. Detected PID readings, summarized on boring logs (Appendix B), ranged between 0 ppm and 18 ppm (detected at 17 feet bgs).

2.2.1 Soil Sample Collection

Soil samples were collected by advancing a 1-inch-diameter DP sampler lined with 4-foot-long clear polybutryate sleeves into the undisturbed soil profile at the base of the boring. A handsaw was used to cut the plastic liner into 6-inch-long sections for laboratory submittal. Soil samples were examined for visible signs of PHCs, odors, and soil composition, and screened for presence of PHC vapors using a PID. Each soil core was screened for PHCs using a calibrated PID. PID screening was conducted by removing soil from the polybutryate sleeve and placing the soil in a freezer-grade, reseal-able plastic bag, then placing the bag in sunlight for a minimum of 5 minutes to allow fuel hydrocarbons in the soil to volatilize. The bag was opened to allow the PID probe to be inserted to detect volatilized fuel hydrocarbon concentrations in parts per million in vapor (ppmv).

2.2.2 Grab Groundwater Collection

To collect grab groundwater samples, a hydropunch sampler was used, where rods must be pulled up and water allowed to recover, a temporary 1-inch-diameter casing and a 5-foot-long well screen were installed over the desired depth-discrete interval. Depth of each soil boring as well as depth to water at the time of grab groundwater sampling is documented in Table 2.

Depth to groundwater during the latest groundwater monitoring event (February 2016) was recorded between 8.43 and 5.40 feet bgs. During advancement of DPT borings, SOMA's geologist also waited for water to accumulate at shallow depths to 12 feet bgs, corresponding to groundwater observed in site wells. After a reasonable time, water was accumulated at these shallow depths. However, no groundwater was encountered in DPT-9 at shallow depth, indicating that shallow perched zone is absent at this location.

Where enough groundwater had accumulated, a small diameter bailer was utilized to collect groundwater samples. Equipment utilized in sample collection was field decontaminated, and new, unused polyethylene tubing and check valves were utilized, to avoid cross-contaminating groundwater samples.

Each collected grab groundwater sample was transferred to appropriate vials with Teflon septa with no headspace. The samples were then labeled, logged on Additional Site Investigation Report

a chain-of-custody form, placed in an ice-filled cooler, and kept at 4°C pending transport to Curtis & Tompkins, Laboratories for analysis.

As previously mentioned, during the most recent investigation, while logging the soil from boring DPT-9, no groundwater was encountered until 45 feet bgs. The soil cutting was dry as such it was concluded that the shallow perched zone at DPT-9 location is missing. During the previous investigation it was also concluded that the shallow groundwater appears to be perched and somewhat discontinuous, so this shallow zone that was encountered is the perched and discontinuous zone. However at depth 45 feet bgs the First WBZ was encountered. The First WBZ is a very slow water producing zone and took almost an hour before enough groundwater was accumulated for groundwater sampling purposes.

Where enough groundwater had accumulated, a bailer was utilized to collect groundwater samples. Equipment utilized in sample collection was field decontaminated to avoid cross-contaminating groundwater samples.

Each collected grab groundwater sample was transferred to appropriate vials with no headspace. The samples were then labeled, logged on a chain-of-custody form, placed in an ice-filled cooler, and kept at 4°C pending transport to Curtis & Tompkins Laboratories for analysis.

2.3 Waste Disposal

Soil and wastewater generated during field activities was temporarily stored on-site in separate DOT-rated, 55-gallon steel drums pending characterization and profiling. On April 6, 2016 two 55-gallon steel drums, one containing soil cuttings and one containing wastewater were transported to an approved disposal-recycling facility. The waste manifest is included in Appendix E.

2.4 Laboratory Analysis

Soil and groundwater samples were submitted to C&T for analysis of the following:

- Total petroleum hydrocarbons as gasoline and diesel (TPH-g and TPH-d)
- BTEX
- Fuel oxygenates, additives and lead scavengers including MtBE, tertiary-butyl alcohol (TBA), ethyl tertiary-butyl ether (ETBE), diisopropyl ether (DIPE), tertiary-amyl methyl ether (TAME), 1,2-dichloroethane (1,2-DCA), 1,2-dibromomethane (EDB), naphthalene, and ethanol.

Analyses employed USEPA Methods 8015 and 8260B

2.4.1 Soil Analytical Results

Table 1 summarizes soil analytical results. TPH-g, TPH-d, BTEX and ethanol were below the laboratory reporting limit or below ESLs (Environmental Screening Level) in every soil sample collected from different DPT locations. However, elevated levels of MtBE, TBA and TAME were detected in shallow soil samples collected in off-site DPT borehole.

The maximum concentration of MtBE at 3,300 μ g/Kg was detected in a soil sample collected from DPT-7 at 20 feet bgs. MtBE at 500 μ g/Kg was also detected in a soil sample collected at 24 feet bgs from DPT-8. DPT-8 is located about 20 feet southwest of DPT-7. MtBE was also detected in a soil sample collected from on-site DPT-6 at 40 μ g/Kg.

TBA was only detected at 6,000 μ g/Kg in a soil sample collected from DPT-7 at 20 feet bgs. TAME was detected in two soil samples collected from DPT-7 at 20 feet bgs, and DPT-8 at 24 feet bgs at 290 μ g/Kg and 45 μ g/Kg, respectively.

Figure 7 and 8 shows the extent of MtBE and TBA concentration up to 20 feet bgs.

2.4.2 Groundwater Analytical Results

Table 2 summarizes groundwater analytical results. In general concentrations of TPH-g, BTEX, and naphthalene are either below the laboratory detection limits or significantly below the recommended Low Threat Closure Policy (LTCP) requirements for residential and commercial land use type.

As Table 2 shows elevated levels of MtBE, TBA and TAME was reported on groundwater samples collected from the perched water bearing zone in on- and off-site areas. As historical groundwater data shows significant concentrations of MTBE, TBA and TAME exist in shallow perched zone beneath the site and more importantly in down-gradient off-site areas. Due to clayey nature of saturated sediments the transport of MtBE and TBA to the deeper zone and horizontal migration to down-gradient area is very limited and generally these chemicals are accumulated in the shallow perched zone.

In 2012, maximum concentration of MtBE was detected in DPT-2 at 22 feet bgs at 52,000 μ g/L. DPT-2 was installed on-site down-gradient from the former USTs. During the recent investigation MtBE was detected at 30,000 μ g/L in a groundwater sample collected from DPT-8 within the perched zone. DPT-8 was drilled almost in the middle of Mountain Boulevard. Figure 9 shows the extent of MtBE concentration within the shallow perched zone. MtBE was also detected during recent investigation in the First WBZ at maximum concentration of 780 Additional Site Investigation Report

 μ g/L in the groundwater sample collected from DPT-7B. This sample was collected at 46 feet bgs. MTBE was also detected at 7.7 μ g/L and 310 μ g/L in samples collected from DPT-6B and DPT-8B, respectively.

In 2012, TBA was detected at elevated levels in DPT-2 within the perched zone at concentration of 92,000 μ g/L. During the recent investigation TBA was also detected at 40,000 μ g/L in the groundwater sample collected from DPT-7A. Figure 10 shows the extent of TBA plume in groundwater within the shallow perched zone. TBA was also detected during recent investigation in the First WBZ at a maximum concentration of 310 μ g/L in the groundwater sample collected from DPT-7B.

In 2012 as well as during the recent investigation, elevated levels of TAME were detected in the shallow perched zone. In 2012, TAME was detected at 3,000 μ g/L in a groundwater sample collected from DPT-2. During recent investigation up to 2,200 μ g/L of TAME was detected in groundwater sample collected from DPT-8A. TAME was also detected up to 56 μ g/L in a groundwater sample collected from the First WBZ at 46 feet bgs.

Certified laboratory analytical reports and COC documentation are included in Appendix C.

3. CONCLUSIONS AND RECOMMENDATIONS

The results of current investigation did not reveal the presence of elevated levels of TPH-g, TPH-d and BTEX and naphthalene in on- and off-site areas. However, the results of laboratory analysis on soil and groundwater showed elevated levels of gasoline additive such as MTBE, TBA, and TAME in soil and groundwater in on- and off-site areas.

The presence of these chemicals has already been documented during the previous investigation, however, the results of recent investigation showed that these chemicals at elevated levels are present at the most down-gradient area along the cutoff wall between the Mountain Boulevard and the Warren Freeway.

3.1 Recommendations

Reviewing the site data indicates that elevated levels of MtBE, TBA and TAME exist primarily in the shallow perched zone in on- and off-site areas. In addition these chemicals also exist in First WBZ at depth ranging up to 48 feet bgs (see cross-sections AA', BB', and CC' in Figures 4, 5, and 6).

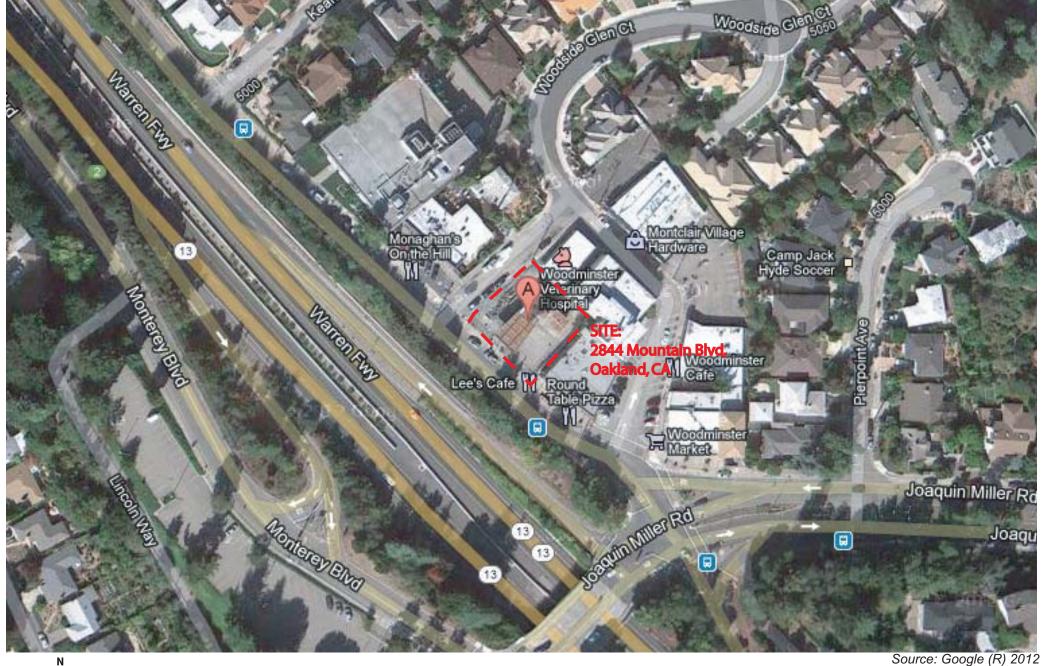
The results of the current site investigation have shown elevated levels of MtBE, TBA and TAME in off-site area in DPT-7 and DPT-8 in shallow and in the deeper water bearing zone. It appears that horizontal and vertical extent of MtBE and

TBA has been adequately defined to the extent practicable. Further down-gradient investigation is not feasible due to the presence of a fence which makes the area inaccessible.

Since groundwater is a potential drinking water source and fact that elevated levels of MtBE has already impacted the deeper water-bearing zone SOMA is recommending to prepare a corrective action plan (CAP) and address removing of MTBE, TBA and TAME from the shallow perched zone.

Upon receiving a directive from the RWQCB, SOMA will prepare a CAP.

FIGURES

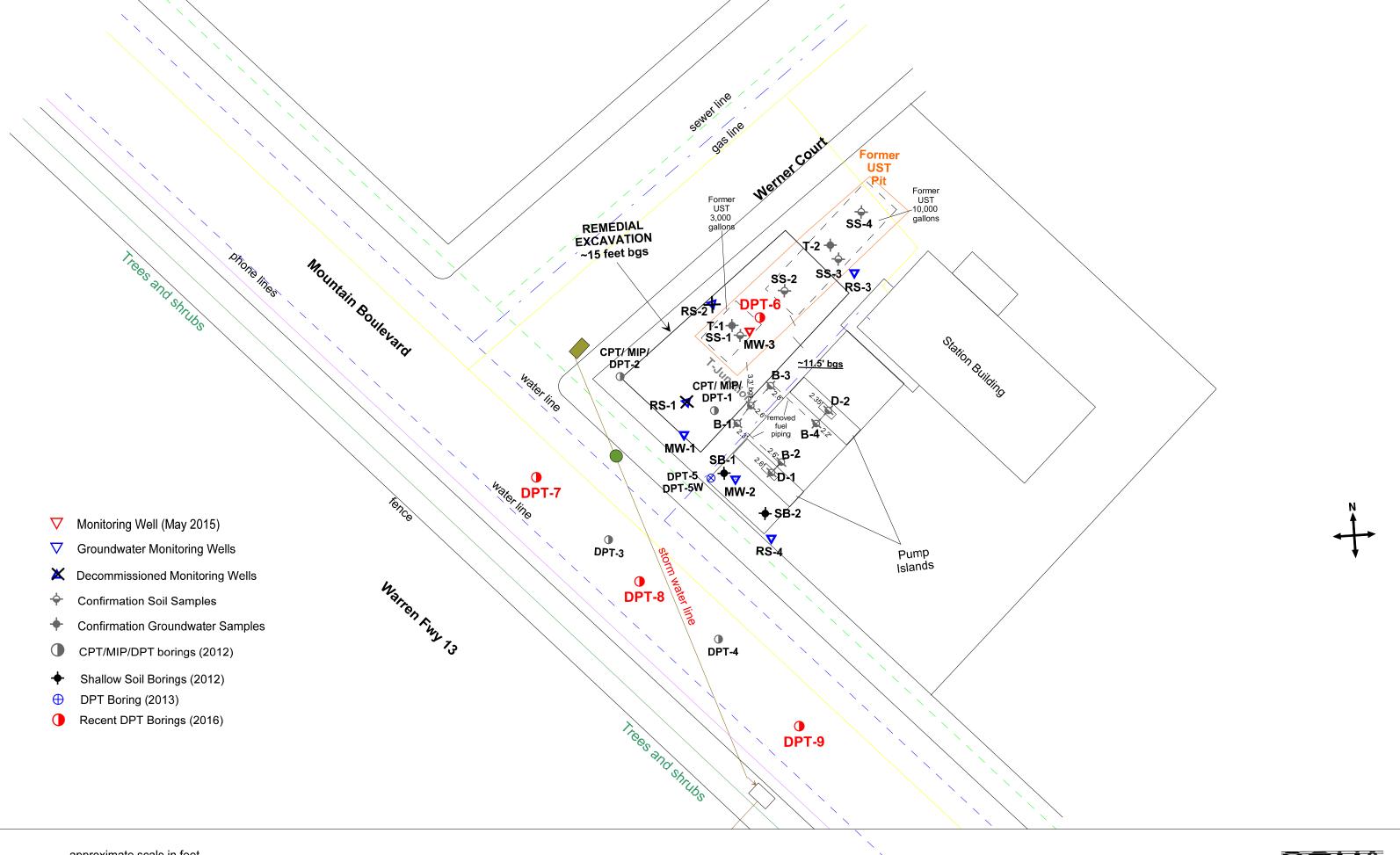








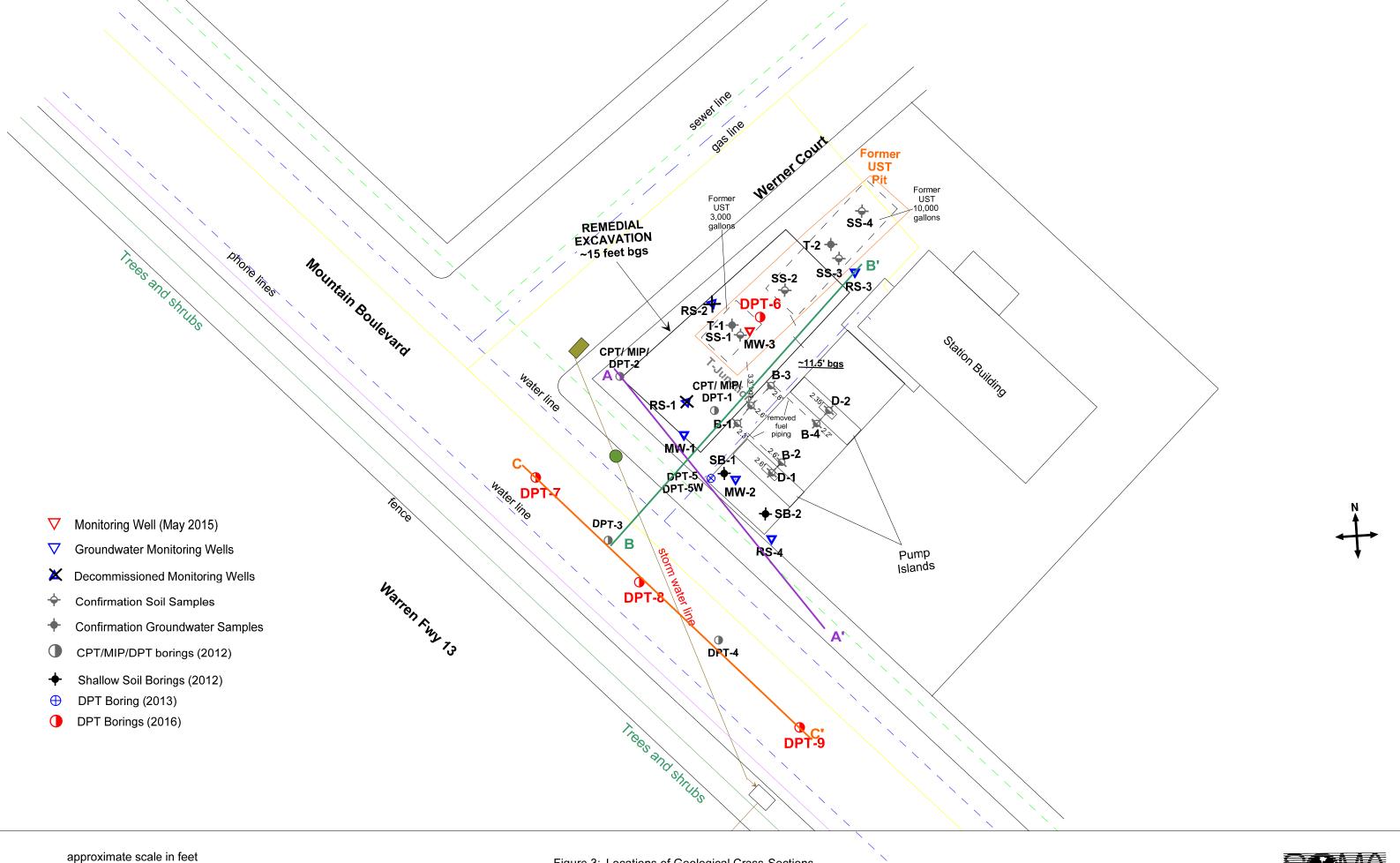




approximate scale in feet

Figure 2: Site Map Showing Locations of Former USTs, Soil Borings, and Groundwater Monitoring Wells





approximate scale in feet

Figure 3: Locations of Geological Cross-Sections



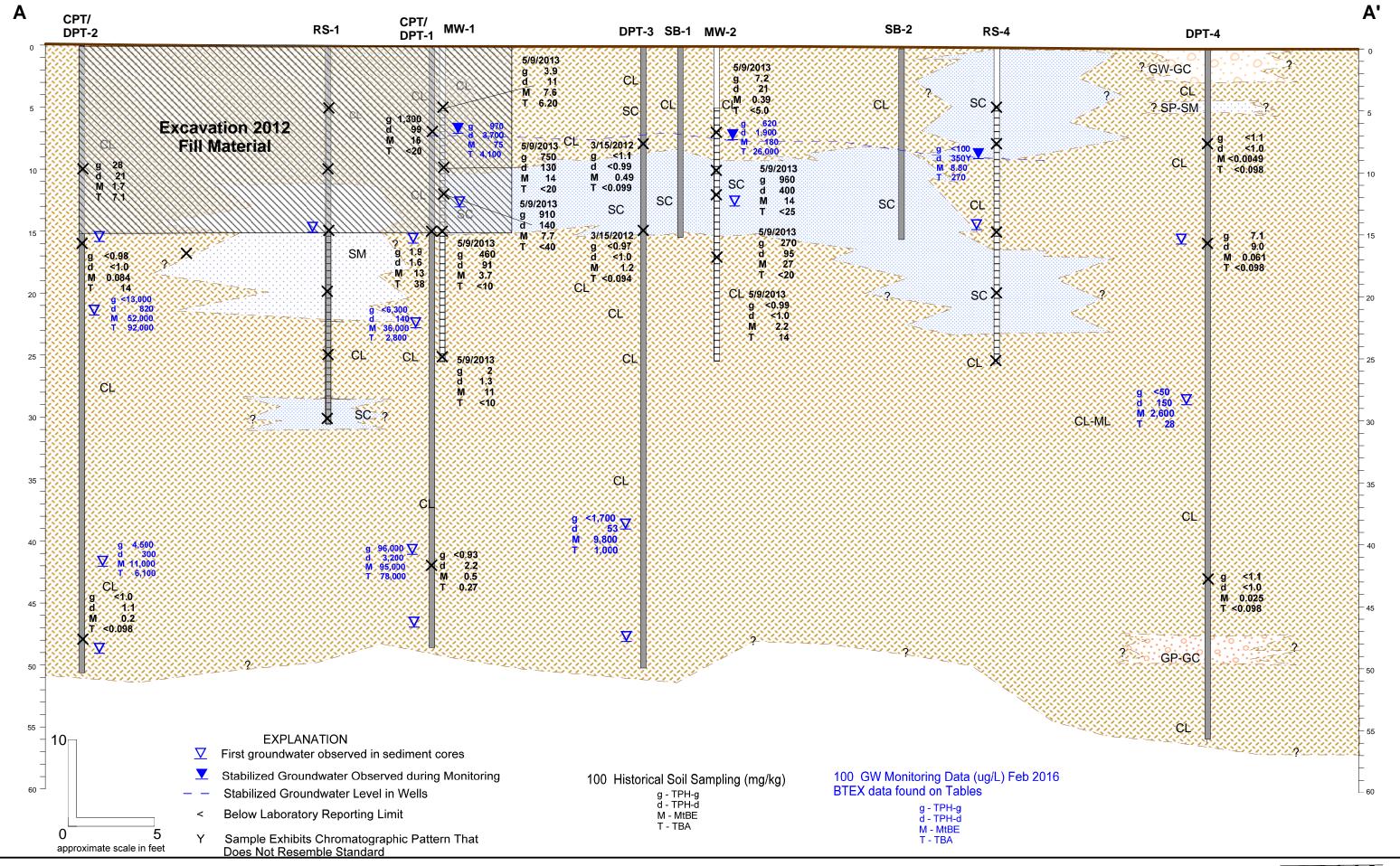


Figure 4: Geological Cross-Section A-A'



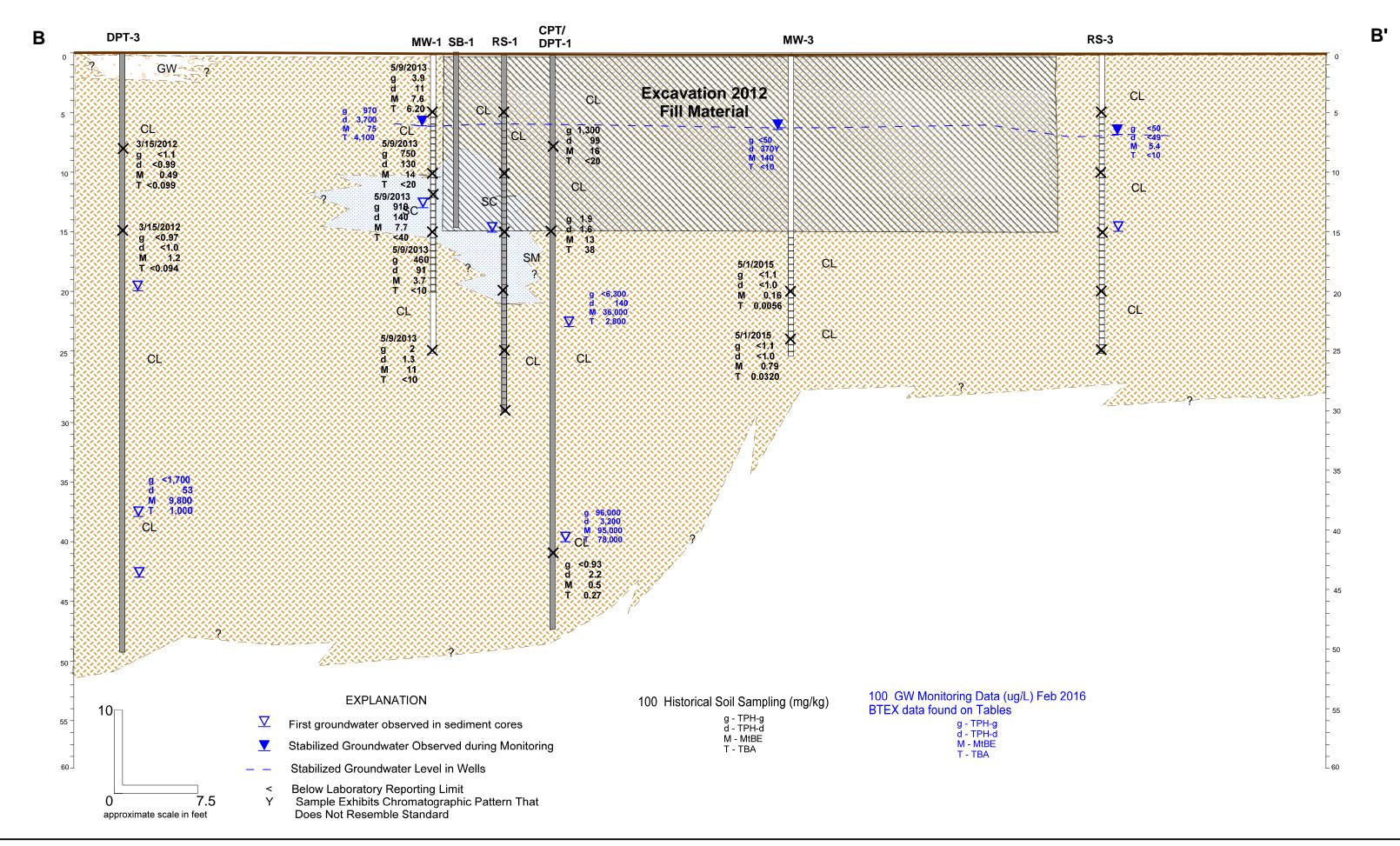


Figure 5: Geological Cross-Section B-B'



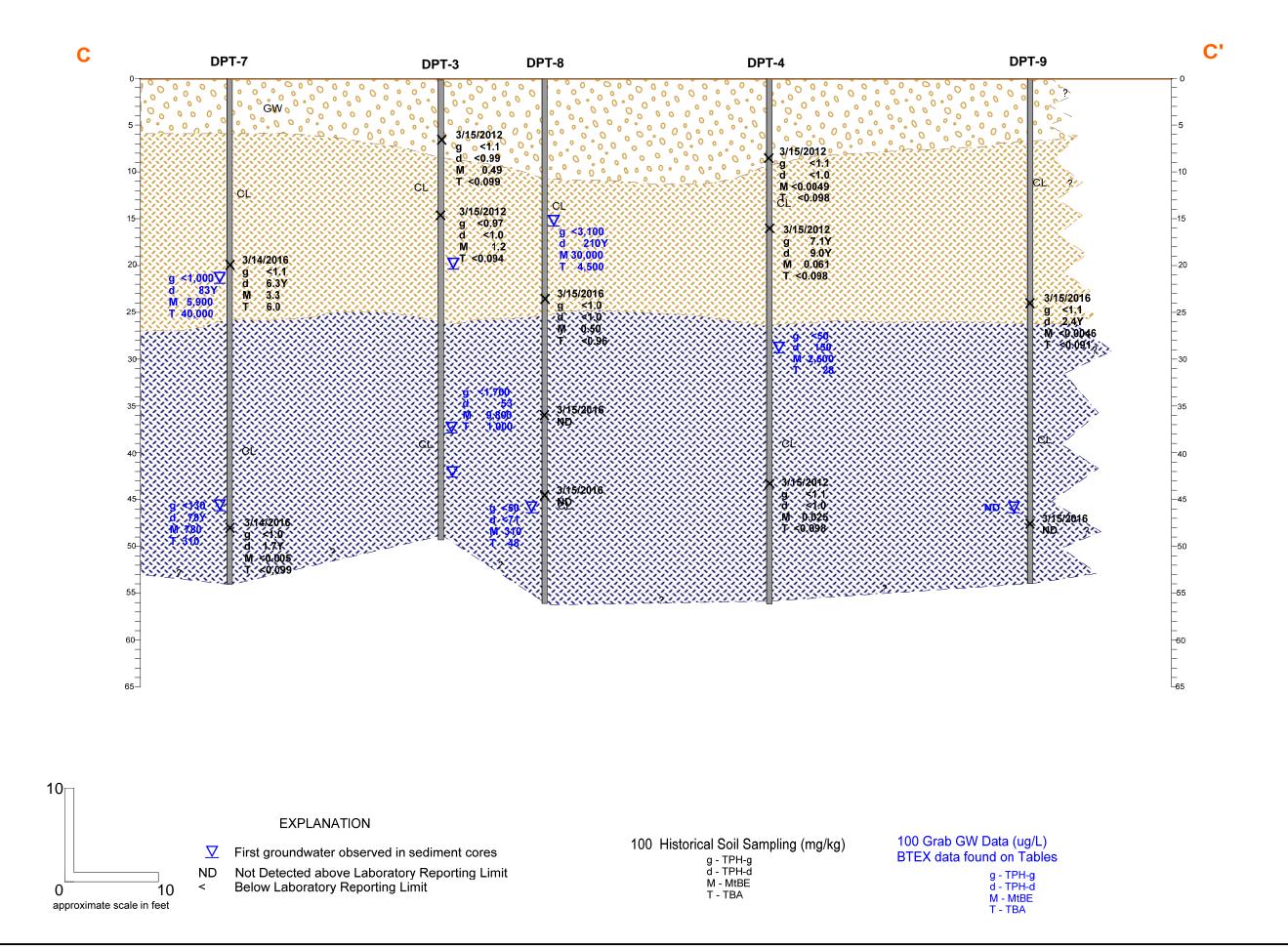


Figure 6: Geological Cross-Section C-C'



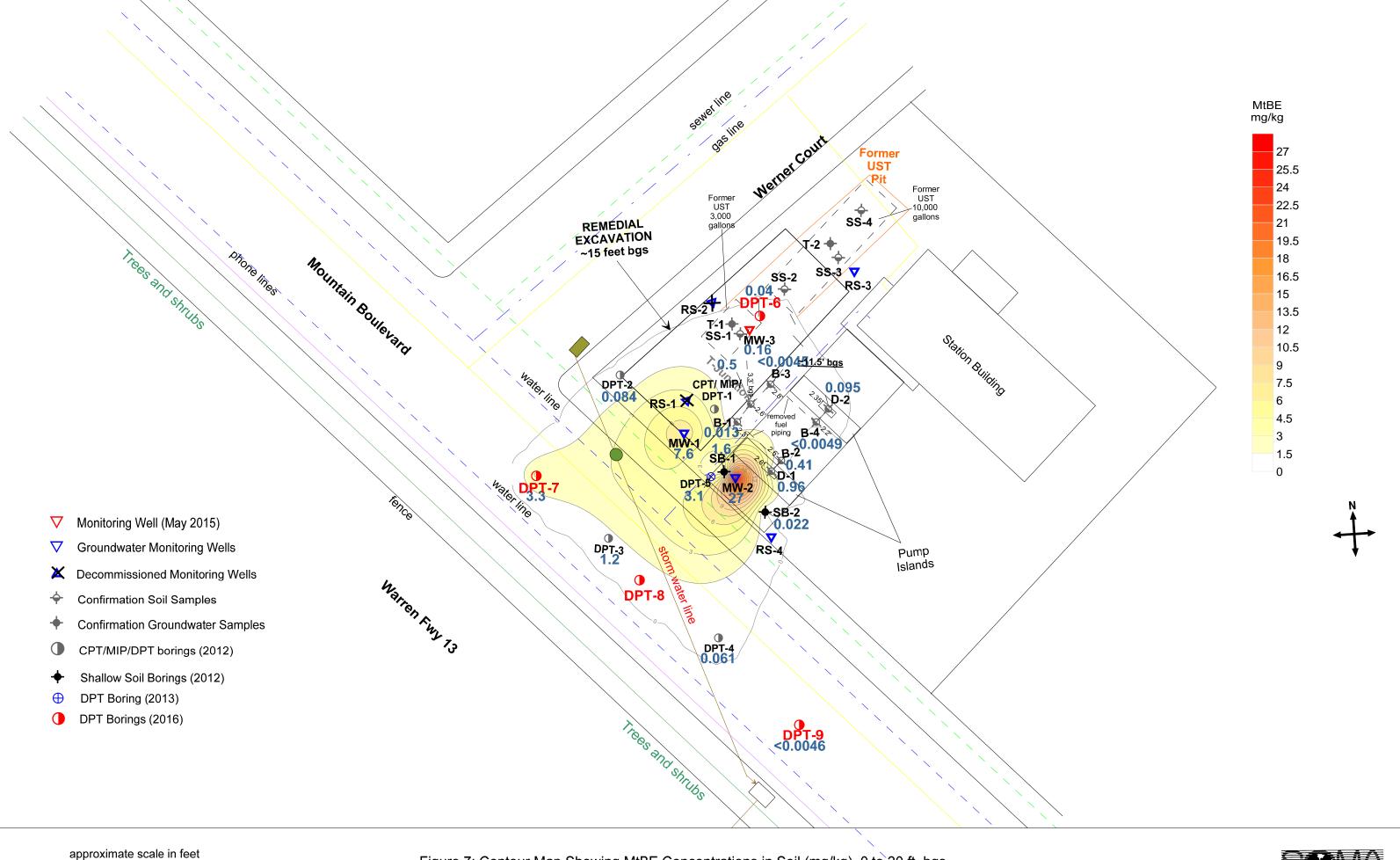


Figure 7: Contour Map Showing MtBE Concentrations in Soil (mg/kg), 0 to 20 ft. bgs



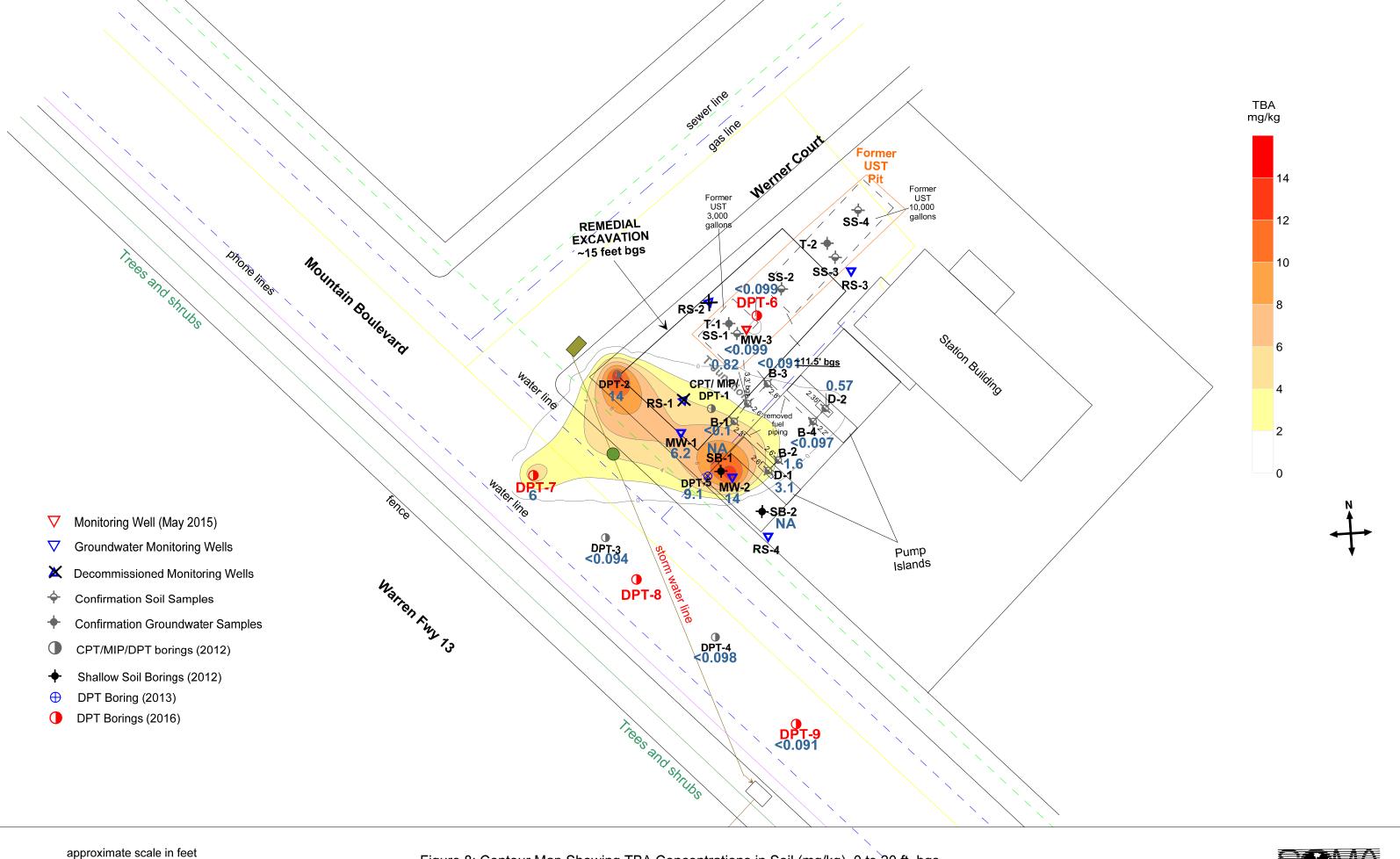


Figure 8: Contour Map Showing TBA Concentrations in Soil (mg/kg), 0 to 20 ft. bgs



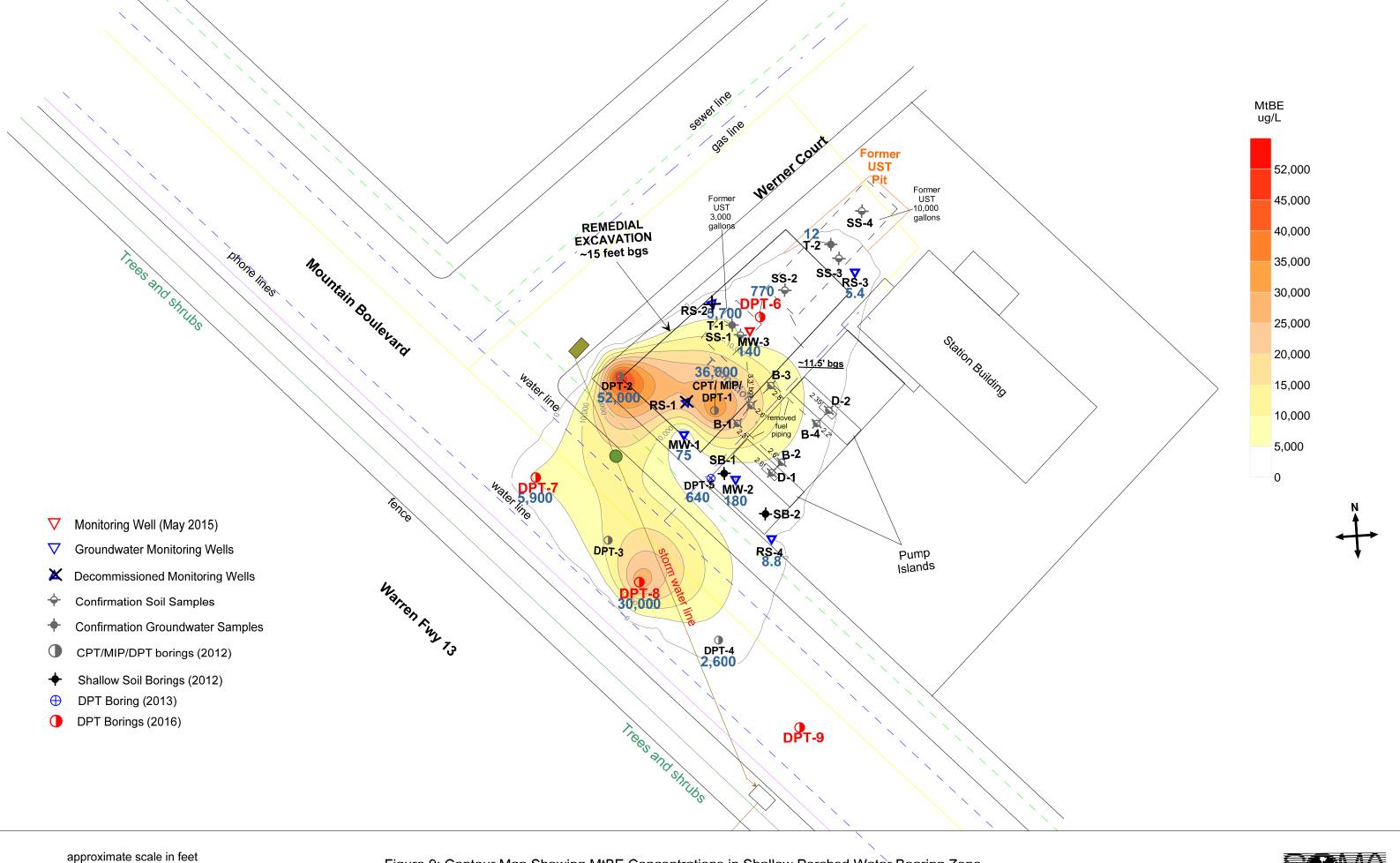


Figure 9: Contour Map Showing MtBE Concentrations in Shallow Perched Water Bearing Zone



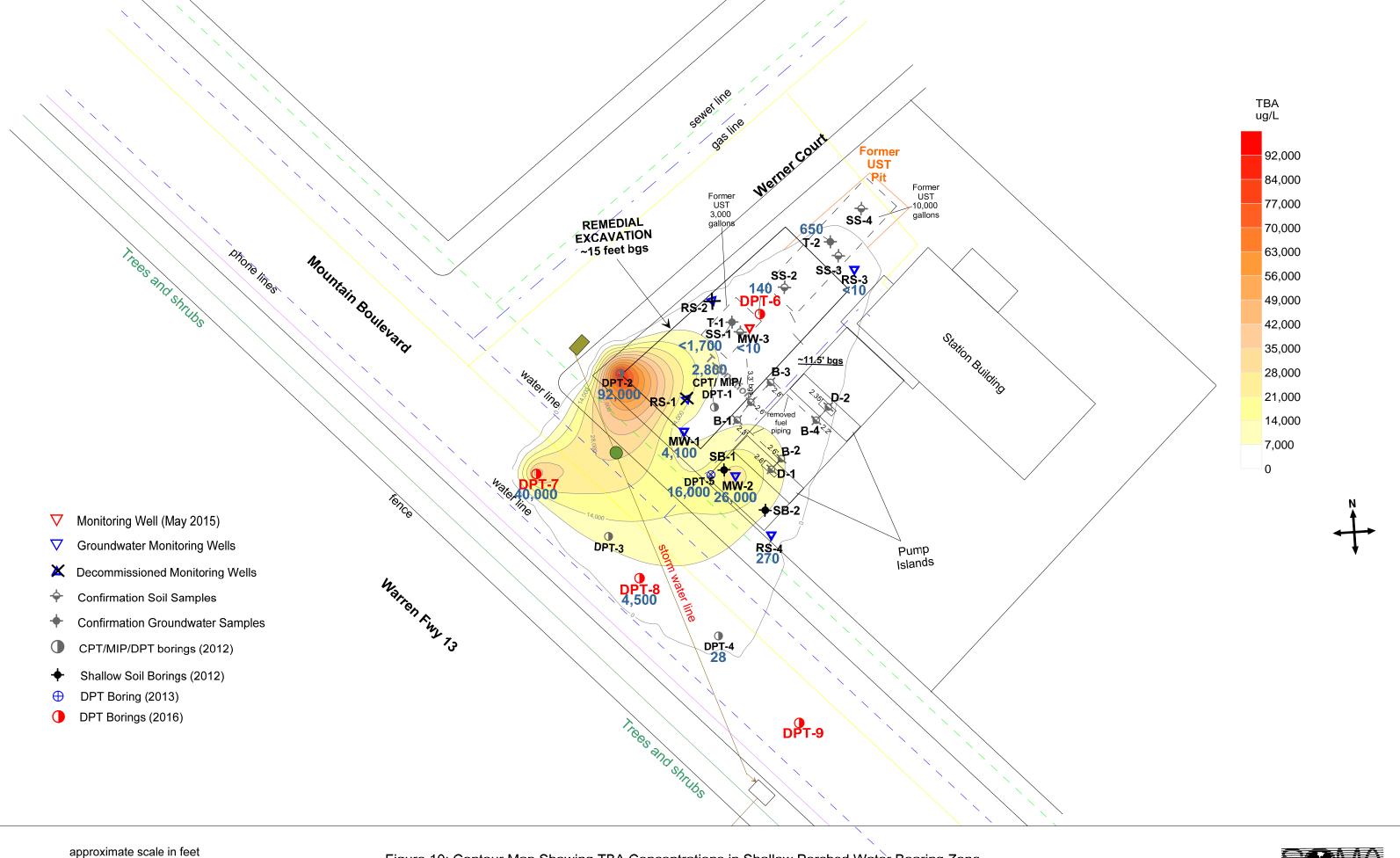


Figure 10: Contour Map Showing TBA Concentrations in Shallow Perched Water Bearing Zone



TABLES

Table 1: Historical Soil Analytical Data 2844 Mountain Blvd, Oakland, CA

Sample ID	Date	Sample Depth (feet)	TPH-g (mg/kg)	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzen e (mg/kg)	Xylenes (mg/kg)	MtBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	Methanol (mg/kg)		
Sampling Beneath USTs														
SS-1	8/9/2011	11.50	2,300	630 Y	<2.5	15	17	123	3.3	<50	<2.5	1.5 C		
\$\$-2	8/9/2011	11.50	690 Y	800	<2.0	<2.0	< 2.0	<2.0	<2.0	<40	<2.0	<1.0		
SS-3	8/9/2011	11.50	<0.91	<1.0	0.0053	0.06	0.0078	0.0430	0.54	0.11	0.14	<1.0		
SS-4	8/9/2011	11.50	30 Y	51 Y	0.0054	0.055	0.011	0.054	0.310	<0.1	0.064	<1.0		
CS-1-CS-4 Composite	8/9/2011	NA	570 Y	180 Y	<1.3	2.1	4.8	35	<1.3	<25	<1.3	<1.0		
Sampling Beneath Fuel Piping														
T-Junction	8/18/2011	2.6-3.3	<0.99	11 Y	<0.0047	<0.0047	< 0.0047	<0.0047	0.5	0.82	0.031	<0.98		
B-1	8/18/2011	2.30	<0.91	1.4 Y	< 0.005	< 0.005	< 0.005	<0.005	0.013	<0.1	<5	<1		
B-2	8/18/2011	2.60	29 Y	160	< 0.033	< 0.033	< 0.033	< 0.033	0.410	1.6	0.044	<1		
B-3	8/18/2011	2.80	<1.1	25 Y	<0.0045	<0.0045	< 0.0045	<0.0045	<0.0045	<0.091	<0.0045	<0.99		
B-4	8/18/2011	2.20	<0.92	18 Y	<0.0049	<0.0049	< 0.0049	<0.0049	< 0.0049	<0.097	<0.0049	<0.98		
D-1	8/18/2011	2.60	2	4.0 Y	<0.026	<0.026	<0.026	0.050	0.96	3.1	0.140	1.4 C		
D-2	8/18/2011	2.35	1.4 Y	2.7 Y	<0.0048	<0.0048	<0.0048	<0.0048	0.095	0.57	<0.0048	<0.99		
	0,10,2011			2	10.00.0	10.0010	10.00.10	10.00.10	1 0.000	0.01	10.00 10	10.00		
CPT/DPT-1	3/16/2012	8	1,300	99-Y	<1.0	<1.0	16	58	16	<20	1.6	NA		
CPT/DPT-1	3/16/2012	15	1.9	1.6 Y	<1.0	<1.0	<1.0	<1.0	13	38	<1.0	NA		
CPT/DPT-1	3/16/2012	42	< 0.93	2.2 Y	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.50	0.27	0.020	NA		
CPT/DPT-2	3/16/2012	10	28	21 Y	< 0.25	<0.25	<0.25	0.260	1.7	7.10	<0.25	NA		
CPT/DPT-2	3/16/2012	16	<0.98	<1.0	< 0.046	< 0.046	< 0.046	<0.046	0.084	14.00	< 0.046	NA		
CPT/DPT-2	3/16/2012	48	<1.0	1.1 Y	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.200	<0.098	0.013	NA		
DPT-3	3/15/2012	8	<1.1	< 0.99	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.490	< 0.099	0.027	NA		
DPT-3	3/15/2012	15	< 0.97	<1.0	< 0.0047	< 0.0047	< 0.0047	< 0.0047	1.200	< 0.094	0.026	NA		
DPT-4	3/15/2012	8	<1.1	<1.0	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.098	< 0.0049	NA		
DPT-4	3/15/2012	16	7.1 Y	9.0 Y	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.061	< 0.098	< 0.0049	NA		
DPT-4	3/15/2012	43	<1.1	<1.0	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.025	< 0.098	< 0.0049	NA		
	•				Au	g-12								
SB-1	8/31/2012	6	<1.1	<1.0	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.0051	NA	NA	NA		
SB-1	8/31/2012	10	440 Y	210 Y	< 0.63	< 0.63	6.50	9.70	1.60	NA	NA	NA		
SB-1	8/31/2012	13	11 Y	<1.0	<0.02	<0.02	<0.02	<0.02	0.39	NA	NA	NA		
SB-2	8/31/2012	6	< 0.93	63 Y	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	NA	NA	NA		
SB-2	8/31/2012	10	60 Y	3.4 Y	<0.01	<0.01	<0.01	0.016	0.015	NA	NA	NA		
SB-2	8/31/2012	13	4.4 Y	2.8 Y	<0.0048	<0.0048	<0.0048	<0.0048	0.022	NA	NA	NA		
						t-12								
CS-1	10/4/2012	15	<1.0	<1.0	<0.049	<0.049	< 0.049	<0.049	1.50	<0.98	<0.049	NA		
CS-2	10/4/2012	15	<1.1	<0.99	< 0.0047	< 0.0047	< 0.0047	< 0.0047	0.97	0.78	0.045	NA		
CS-3	10/4/2012	15	<1.1	<1.0	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.65	5.50	0.031	NA		
CS-4	10/4/2012	15	<1.1	<1.0	< 0.024	< 0.024	< 0.024	< 0.024	1.30	6.50	0.110	NA		
CS-5	10/5/2012	15	<1.1	<1.0	< 0.049	< 0.049	<0.049	<0.049	4.40	20	0.58	NA		
WCS-1	10/8/2012	10	3.3	20 Y	<0.047	<0.047	<0.047	0.560	2.60	6.50	0.53	NA		
WCS-2	10/8/2012	10	<0.94	9.4 Y	<0.01	<0.01	<0.01	<0.01	0.13	30	<0.01	NA		
WCS-3	10/8/2012	10	3.6 Y	18 Y	<0.049	<0.049	<0.049	<0.049	<0.049	4.50	<0.049	NA		

Table 1:
Historical Soil Analytical Data

	2844 Mountain Blvd, Oakland, CA												
Sample ID	Date	Sample Depth (feet)	TPH-g (mg/kg)	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzen e (mg/kg)	Xylenes (mg/kg)	MtBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	Methanol(mg/kg)	
	May-13												
DPT-5	5/9/2013	4 b	3.7 Y	16 Y	<0.25	<0.25	<0.25	<0.25	2.6	<5.0	1.0	NA	
DPT-5	5/9/2013	10	90 Y	47	<0.25	< 0.25	0.77	<0.25	1.5	<5.0	<0.25	NA	
DPT-5	5/9/2013	12	56 Y	17	<0.25	< 0.25	0.87	0.53	3.10	<5.0	0.36	NA	
DPT-5	5/9/2013	15	<0.98	<1.0	< 0.025	< 0.025	< 0.025	< 0.025	0.073	9.10	< 0.025	NA	
DPT-5	5/9/2013	30	< 0.96	1.1 Y	< 0.0047	< 0.0047	< 0.0047	< 0.0047	0.0063	< 0.094	<0.0047	NA	
DPT-5	5/9/2013	50	<1.1	<1.0	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.098	< 0.0049	NA	
MW-1	5/9/2013	5 b	3.9	11 Y	<0.25	< 0.25	< 0.25	< 0.25	7.6	6.20	0.45	NA	
MW-1	5/9/2013	10	750	130	<1.0	<1.0	22	108	14	<20	2.1	NA	
MW-1	5/9/2013	12	910	140	<2.0	5.6	19	124	7.7	<40	<2.0	NA	
MW-1	5/9/2013	15 b	460	91 b	< 0.5	1.7 b	6.8 b	42 b	3.7 b	<10	< 0.5	NA	
MW-1	5/9/2013	25	2	1.3 Y	< 0.5	< 0.5	<0.5	<0.5	11	<10	0.60	NA	
MW-2	5/9/2013	7 b	7.2 Y	21 Y	<0.25	< 0.25	< 0.25	< 0.25	0.39 b	<5.0	< 0.25	NA	
MW-2	5/9/2013	10	960	400	<1.3	<1.3	18	64.5	14	<25	3	NA	
MW-2	5/9/2013	12	270	95	<1.0	<1.0	5	27	27	<20	4.8	NA	
MW-2	5/9/2013	17	< 0.99	<1.0	< 0.25	< 0.25	< 0.25	< 0.25	2.2	14	< 0.25	NA	
					Ma	y-15							
MW-3	5/1/2015	20	<1.1	<1.0	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.16	< 0.099	0.0056	NA	
MW-3	5/1/2015	24	<1.1	<1.0	<0.0048	< 0.0048	<0.0048	< 0.0048	0.79	< 0.096	0.0320	NA	
		-			Ma	r-16	-		•		<u> </u>		
DPT-6	3/16/2016	16	< 0.95	<1.0	< 0.0049	< 0.0049	< 0.0049	< 0.0049	0.040	< 0.099	< 0.0049	NA	
DPT-6	3/16/2016	44	<1.1	5.5 Y	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	<0.098	< 0.0049	NA	
DPT-7	3/14/2016	20	<1.1	6.3 Y	< 0.0047	< 0.0047	< 0.0047	< 0.0047	3.3	6.0	0.29	NA	
DPT-7	3/14/2016	48	<1.0	1.7 Y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.099	< 0.005	NA	
DPT-8	3/15/2016	24	<1.0	<1.0	< 0.0046	< 0.0046	< 0.0046	<0.0046	0.50	< 0.96	0.045	NA	
DPT-8	3/15/2016	36	< 0.97	<1.0	< 0.0048	< 0.0048	<0.0048	< 0.0048	<0.0048	< 0.096	<0.0048	NA	
DPT-8	3/15/2016	45	<1.1	<1.0	< 0.0045	< 0.0045	< 0.0045	< 0.0045	0.0082	< 0.091	< 0.0045	NA	
DPT-9	3/15/2016	24	<1.1	2.4 Y	< 0.0046	<0.0046	< 0.0046	< 0.0046	<0.0046	<0.091	<0.0046	NA	
DPT-9	3/15/2016	48	< 0.94	<1.0	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.094	< 0.0047	NA	
	ESL - Shallow Soil Residential, Potential Drinking			240	0.044	2.9	1.4	2.3	0.023	0.075	NA	NA	
ESL-Deep Soi	l Residential, Drinking	Potential	500	240	0.044	2.9	1.4	2.3	0.023	0.075	NA	NA	

Table 1: Historical Soil Analytical Data 2844 Mountain Blvd, Oakland, CA

Sample ID	Date	Sample Depth (feet)	Acetone (mg/kg)	Methylene chloride (mg/kg)	Isopropylb enzene (mg/kg)	Propylben zene (mg/kg)	1,3,5- Trimethylbe nzene (mg/kg)	1,2,4- Trimethylben zene (mg/kg)	sec- Butylbenz ene (mg/kg)	n- Butylbenz ene (mg/kg)	Naphthalen e (mg/kg)	Ethanol (mg/kg)			
	Sampling Beneath USTs														
SS-1	8/9/2011	11.50	<10	<10	2.7	12	29	93	<2.5	7.5	19	2			
SS-2	8/9/2011	11.50	<8.0	<8.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.4	3.8	<1.0			
SS-3	8/9/2011	11.50	0.057	0.026	< 0.0046	< 0.0046	< 0.0046	0.0059	< 0.0046	< 0.0046	< 0.0046	<1.0			
SS-4	8/9/2011	11.50	0.045	< 0.02	< 0.005	0.005	< 0.005	< 0.005	0.0066	0.011	< 0.005	<1.0			
CS-1-CS-4 Composite	8/9/2011	NA	<5.0	<5.0	<1.3	3.3	9.8	30	<1.3	1.8	4.5	<1.0			
Sampling Beneath Fuel Piping															
T-Junction	8/18/2011	2.6-3.3	0.087	<0.019	<0.0047	< 0.0047	<0.0047	<0.0047	< 0.0047	< 0.0047	< 0.0047	<0.98			
B-1	8/18/2011	2.30	0.025	< 0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<1			
B-2	8/18/2011	2.60	0.320	<0.130	0.048	0.250	< 0.033	< 0.033	0.055	0.250	0.670	1.4			
B-3	8/18/2011	2.80	<0.018	<0.018	< 0.0045	< 0.0045	< 0.0045	<0.0045	< 0.0045	< 0.0045	< 0.0045	<0.99			
B-4	8/18/2011	2.20	< 0.019	< 0.019	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	<0.98			
D-1	8/18/2011	2.60	0.710	<0.1	<0.26	0.038	< 0.026	0.099	< 0.026	< 0.026	< 0.026	<0.98			
D-2	8/18/2011	2.35	0.170	< 0.019	< 0.0048	0.0072	0.0054	0.029	<0.0048	<0.0048	<0.0048	< 0.99			
	D-2 0/10/2011 2.33 0.170 <0.019 <0.0040 0.00/2 0.0004 0.029 <0.0040 <0.0040 <0.0040 <0.0040 <0.0040 <0.0040														
CS-1	10/4/2012	15	<0.20	<0.20	< 0.049	<0.049	< 0.049	<0.049	< 0.049	< 0.049	< 0.049	<9.80			
CS-2	10/4/2012	15	<0.019	< 0.019	< 0.0047	<0.0047	< 0.0047	< 0.0047	<0.0047	<0.0047	<0.0047	<0.94			
CS-3	10/4/2012	15	<0.019	< 0.019	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	<0.0049	<0.97			
CS-4	10/4/2012	15	< 0.097	< 0.097	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	< 0.024	<4.90			
CS-5	10/5/2012	15	0.25	<0.20	< 0.049	< 0.049	< 0.049	< 0.049	< 0.049	< 0.049	< 0.049	<9.80			
WCS-1	10/8/2012	10	1.70	<0.19	< 0.047	< 0.047	0.15	0.24	< 0.047	< 0.047	< 0.047	<9.4			
WCS-2	10/8/2012	10	2.90	<0.041	<0.01	<0.01	<0.01	<0.01	< 0.01	< 0.01	0.013	<2.0			
WCS-3	10/8/2012	10	0.91	<0.20	< 0.049	< 0.049	< 0.049	< 0.049	< 0.049	< 0.049	0.077	<9.8			
					Ma	y-13									
DPT-5	5/9/2013	4	NA	NA	NA	NA	NA	NA	NA	NA	< 0.25	<50			
DPT-5	5/9/2013	10	NA	NA	NA	NA	NA	NA	NA	NA	1.40	<50			
DPT-5	5/9/2013	12	NA	NA	NA	NA	NA	NA	NA	NA	0.58	<50			
DPT-5	5/9/2013	15	NA	NA	NA	NA	NA	NA	NA	NA	<0.048	<5.0			
DPT-5	5/9/2013	30	NA	NA	NA	NA	NA	NA	NA	NA	< 0.0047	< 0.94			
DPT-5	5/9/2013	50	NA	NA	NA	NA	NA	NA	NA	NA	< 0.0049	<0.98			
MW-1	5/9/2013	5	NA	NA	NA	NA	NA	NA	NA	NA	<0.25	<50			
MW-1	5/9/2013	10	NA	NA	NA	NA	NA	NA	NA	NA	5.2	<200			
MW-1	5/9/2013	12	NA	NA	NA	NA	NA	NA	NA	NA	5.3	<400			
MW-1	5/9/2013	15	NA	NA	NA	NA	NA	NA	NA	NA	3.2	<100			
MW-1	5/9/2013	25	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	<100			
MW-2	5/9/2013	7	NA	NA	NA	NA	NA	NA	NA	NA	< 0.25	<50			
MW-2	5/9/2013	10	NA	NA	NA	NA	NA	NA	NA	NA	5.9	<250			
MW-2	5/9/2013	12	NA	NA	NA	NA	NA	NA	NA	NA	2.4	<200			
MW-2	5/9/2013	17	NA	NA	NA	NA	NA	NA	NA	NA	<0.25	<50			

Table 1: Historical Soil Analytical Data 2844 Mountain Blvd, Oakland, CA

Sample ID	Date	Sample Depth (feet)	Acetone (mg/kg)	Methylene chloride (mg/kg)	Isopropylb enzene (mg/kg)	Propylben zene (mg/kg)	1,3,5- Trimethylbe nzene (mg/kg)	1,2,4- Trimethylben zene (mg/kg)	sec- Butylbenz ene (mg/kg)	n- Butylbenz ene (mg/kg)	Naphthalen e (mg/kg)	Ethanol (mg/kg)
					Ma	r-16						
DPT-6	3/16/2016	16	NA	NA	NA	NA	NA	NA	NA	NA	< 0.0049	NA
DPT-6	3/16/2016	44	NA	NA	NA	NA	NA	NA	NA	NA	< 0.0049	NA
DPT-7	3/14/2016	20	NA	NA	NA	NA	NA	NA	NA	NA	< 0.0047	NA
DPT-7	3/14/2016	48	NA	NA	NA	NA	NA	NA	NA	NA	< 0.005	NA
DPT-8	3/15/2016	24	NA	NA	NA	NA	NA	NA	NA	NA	< 0.0046	NA
DPT-8	3/15/2016	36	NA	NA	NA	NA	NA	NA	NA	NA	<0.0048	NA
DPT-8	3/15/2016	45	NA	NA	NA	NA	NA	NA	NA	NA	< 0.0045	NA
DPT-9	3/15/2016	24	NA	NA	NA	NA	NA	NA	NA	NA	<0.0046	NA
DPT-9	3/15/2016	48	NA	NA	NA	NA	NA	NA	NA	NA	< 0.0047	NA
ESL - Shallow So	oil Residentia Drinking	I, Potential	0.500	0.077	NA	NA	NA	NA	NA	NA	0.023	NA
ESL-Deep Soil Residential, Potential Drinking			0.500	0.077	NA	NA	NA	NA	NA	NA	0.023	NA

Note:

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

Y: Sample exhibits chromatographic pattern which does not resemble standard

<: Below laboratory-reporting limit

ESL: California Regional Water Quality Control Board, Environmental Screening Levels, Shallow/Deep Soil, Commercial, Groundwater is a current or potential source of drinking water, February 2016

NA: Not Applicable

CPT/DPT-2 Excavated locations

Table 2: Historical Grab Groundwater Analytical Data 2844 Mountain Blvd, Oakland, CA

Sample ID	Date	Depth of Boring at the time of sampling (feet)	Depth to water at the time of sampling (feet)	TPH-d (μg/L)	TPH-g (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethylbenz ene (μg/L)	Total Xylenes (μg/L)	MtBE (μg/L)	TBA (μg/L)	TAME (μg/L)	Naphthalene (μg/L)
	Perched Discontinuous Water Bearing Zone												
T-1	8/9/2011	NA	11.50	14,000	76,000	1,600	11,000	2,000	10,000	5,700	<1,700	5,600	530
T-2	8/9/2011	NA	11.50	1,500	890	8	7.3	<0.5	157	12	650	<0.5	7.6
2012													
CPT/DPT-1-1	3/16/2012	24	23.1	140 ^Y	<6,300	94	64	<63	<63	36,000	2,800	2,300	NA
CPT/DPT-2-1	3/16/2012	24	21.9	820	<13,000	<130	<130	<130	<130	52,000	92,000	3,000	NA
DPT-4-1	3/15/2012	32	29	150 ^Y	<50	<0.5	<0.5	<0.5	<0.5	2,600	28	210	NA
	2013												
DPT-5W-1	5/9/2013	15	14	4,300	2,100	10	<6.3	23	<6.3	640	16,000	54	<25
DPT-5W-2	5/10/2013	25	10	630 Y	<2,000	<20	<20	<20	<20	40,000	59,000	2,200	<80
						201							
DPT-6A	3/16/2016	16	13	230 Y	<100	<1.0	<1.0	<1.0	<1.0	770	140	27	<4.0
DPT-7A	3/14/2016	24	21	83 Y	<1,000	<10	<10	<10	<10	5,900	40,000	730	<40
DPT-8A	3/15/2016	19	16	210 Y	<3,100	<31	<31	<31	70	30,000	4,500	2,200	<130
					Firs	t Water Be	aring Zon	е					
						201	2						
CPT/DPT-2-2	3/16/2012	48	41.9	300 ^Y	4,500	160	390	170	800	11,000	6,100	1,500	NA
DPT-3-2	3/15/2012	49	39	53 ^Y	<1,700	<17	<17	<17	<17	9,800	1,000	690	NA
						201	3						
DPT-5W-3	5/9/2013	50	39	320 Y	<50	<0.5	<0.5	<0.5	<0.5	2.8	<10	<0.5	<2.0
						201	-						
DPT-6B	3/16/2016	56	51	<61	<50	<0.5	<0.5	<0.5	<0.5	7.7	<10	<0.5	<2.0
DPT-7B	3/14/2016	54	46	78 Y	<130	<1.3	<1.3	<1.3	<1.3	780	310	56	<5.0
DPT-8B	3/15/2016	56	46	<71	<50	3.50	0.50	1.90	3.41	310	48	27	<2.0
DPT-9B	3/15/2016	54	46	<59	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<2.0
ESL -	Potential Dr	inking Wate	er	100	100	1	40	30	20	5	12	NA	0.12

Notes:

<: below Laboratory Detection Limits NA- Not Applicable

ESL: California Regional Water Quality Control Board, Environmental Screening Levels, Shallow/Deep Soil, Commercial, Groundwater is a current or potential source of drinking water, Feb 2016

APPENDIX A

PERMITS

Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 03/01/2016 By jamesy

Permit Numbers: W2016-0135 Permits Valid from 03/09/2016 to 03/18/2016

City of Project Site: Oakland

Application Id: 1456436711605 Site Location:

2844 Mountain Blvd.

One on-site boring and three off-site borings on Mountain Blvd.

Project Start Date: 03/09/2016 Completion Date: 03/18/2016 Contact Lindsay Furuyama at (925) 956-2311 or Lfuruyama@groundzonees.com **Assigned Inspector:**

Applicant: SOMA Environmental Engineering, Inc. - Ruchi Phone: 925-734-6400

6620 Owens Dr., Suite A, Pleasanton, CA 94588

Property Owner: Phone: --Tejindar Singh

6400 Dublin Blvd, Dublin, CA 94568

Client: ** same as Property Owner **

> Total Due: **Total Amount Paid:**

Receipt Number: WR2016-0086

Payer Name: Mansour Sepehr Paid By: MC

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 3 Boreholes

Driller: Cascade drilling L.P. - Lic #: 938110 - Method: DP Work Total: \$265.00

Specifications

Permit	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
Number			Boreholes		
W2016-	03/01/2016	06/07/2016	3	3.00 in.	60.00 ft
0135					

Specific Work Permit Conditions

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

Alameda County Public Works Agency - Water Resources Well Permit

6. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

7. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

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

Ruchi Mathur

Subject: 2844 MOUNTAIN BLVD TSD

Attachments: TSD-16-0046 Mountain Blvd 2 of 2.pdf; TSD-16-0046 Mountain Blvd 1 of 2.pdf

From: Kellogg, Suiling

Sent: Tuesday, March 15, 2016 9:31 AM **To:** Bacina, Chris; msepehr@somaenv.com

Cc: Sandhu, Raman

Subject: RE: 2844 MOUNTAIN BLVD

Good Morning,

Payment for both X1600104 & OB1600261 totaling \$1218.66 were received 3/15/16. Receipt has been faxed to 925-

5734-6401. Thank you, Cashier

From: Bacina, Chris

Sent: Monday, March 14, 2016 4:18 PM

To: msepehr@somaenv.com

Cc: Sandhu, Raman; Kellogg, Suiling **Subject:** 2844 MOUNTAIN BLVD

Importance: High

Mansour,

Fees DUE for permit applications. Here is the application info. Please contact Cashiers (copied on this email); 250 Frank Ogawa Plaza, 2nd floor, Oakland, CA 94612; 510-238-4774 to arrange credit card payment or debit your draw-down account. Please reference application number. Cashier will give you the total amount invoiced...

Chris Bacina PROOF OF CURRENT BUSINESS LICENSE REQUIRED MARCH 1, 2016

ENGINEERING DESIGN & RIGHT-OF-WAY MANAGEMENT DIVISION City of Oakland | Public Works Department 250 Frank Ogawa Plaza Suite 4344 | Oakland, CA 94612 510 238-3759 | Fax: 510 238-7415

Permit Center Hours:

Monday, Tuesday, Thursday, Friday: 8:00am - 4:00pm

Wednesday: 9:30 am - 4:00 pm Closed Noon to 1:00 pm Daily

Tax ID 94-6000384

How are we doing? Please complete our quick survey: https://www.research.net/s/TXZ7YN8



Help make Oakland greener: turn off unnecessary lights and other office equipment when not in use.

Mission Statement: The City of Oakland is committed to the delivery of effective, courteous, and responsive services. Citizens and employees are treated with fairness, dignity and respect.

This message (including any attachments) contains business proprietary/confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, you should delete this message. Any disclosure, copying, or distribution of this message, or the taking of any action based on it, without the express permission of the originator, is strictly prohibited.

Here's some info to help you sort out what's needed for soil boring in the City of Oakland. Line drawing site plan on 8-1/2" x 11" or maximum 11" x 17" sheet required.

The contractor/driller needs to submit proof that their City of Oakland Business Tax License is current. Get more info on paying the tax at:

http://www.oaklandnet.com/government/fwawebsite/revenue/revenue_biztaxreq.htm

If you are not listed as an agent of the contractor, you will need a **Letter of Agency** to obtain the excavation permit(s). Please provide a letter from the contractor on letterhead, signed by an officer of the company that names <u>you and your company</u> as authorized to obtain the permit under their license.

Each excavation permit costs \$434.91. Contact Traffic Engineering (copied on this email) to determine if that agency needs to review/ approve your traffic control plan. Once it's approved it's still only a plan. An **OBstruction** permit is needed to implement the plan.

If any boring is on private property, you will need to obtain permission from that property owner to perform the work. Permits are only for work in the public right-of-way.

Included in the obstruction permit will be individual fees for vehicular traffic lane, pedestrian traffic lane (sidewalk), and parking lane. If metered parking is involved, we need the meter number, located either on the pole under the meter-head on individual metered parking spaces; or on the new centrally located Pay Stations in Oakland.

Attached:

€ Excavation permit application;

€ Soil boring map;

€ OBstruction permit rate sheet and process



PUBLIC WORKS DEPARTMENT • 250 FRANK H. OGAWA PLAZA • SUITE 4344 • OAKLAND, CALIFORNIA 94612-2033

Transportation Services Division

OFFICE:(510) 238-3467

FAX:

(510) 238-7415

TDD:

(510) 839-6451

Walk-in

Customer No. From: Jwatson

Date: 3/10/2016

Re: Traffic Engineering Analysis Fee

OPW Receipt #:	

Permit Application #	Utility Co. Job#	Work Location	Contractor Name	Charge To Credit Card #	No. of Hours
 walk-in	16-0046	Mountain Blvd / Werner Ct	Ruchi Mathur		2
				:	
,					<u>.</u>
			,		
*				<i>:</i>	
			Total Hou	ırs	2
		DAID	Permit Review Fe	e (\$/hour)	\$169.00
			Total		\$338.00

Cost Center No.	W045
Organization No.	30265
Account No.	45119
Fund No.	2415
Project No.	A 167560

APPROVED BY:

Joe Wang

Date:

APPLICATION FOR TRAFFIC CONTROL PLAN



Transportation Services Fee: \$169/hour (Check or Money Order Only)

Check the box that apply:

Public Works Agency	► New Application (Utility, Excavation)
	☐ Renewal Application
Transportation Services Division	New Development w/ Mgmt Plan
	☐ City of Oakland Project
Please Read the Following Statements Below:	
1. Processing time for a Traffic Control Application is a minimum of 10 business day	'S.
2. Traffic Control review is scheduled only on Tuesdays and Thursdays from 8:30ar	
3. A scheduled appointment by phone or email with a TSD staff member is necessar	v to discuss? A so so ged appeal
any and all traffic control application and plans.	Security of the Commence of Secureties as in
4. Please call ahead to confirm that the traffic control application is ready for pickup @	510-238-3467. And All American
5. Businesses and residences adjacent to the work area must be provided 72 hour ad	
6. A completed traffic control application may be faxed to (510) 238-7415.	ϵ_{ij}
7. Incomplete traffic control applications will not be processed and returned to applications	
8. The initial approval for a traffic control plan is 1 month, the renewal submittal may b	
9. The traffic control provision dates cannot be changed or extended if work has alread	
10. After receiving TSD approval of the traffic control application, contractor shall proc	eed to the Permit Center to "Obstruction
obtain an obstruction permit.	
	925-734-6400
Contact Person: Ruchi Mathur Phone:	
Contact Person: Ruchi Mathur Phone:	925-734-6400
Contact Person: Ruchi Mathur Phone: Name of Company: SOMA Environmental Engineering Fax:	925-734-6400 925-734-6401
Contact Person: Ruchi Mathur Phone: Name of Company: SOMA Environmental Engineering Fax: Address of Company: . 6620 Owens Drive, Suite A, Pleasanton, CA 9458	925-734-6400 925-734-6401
Contact Person: Ruchi Mathur Phone: Name of Company: SOMA Environmental Engineering Fax: Address of Company: 6620 Owens Drive, Suite A, Pleasanton, CA 9458 Describe type of work to be performed: Eastbound lane shift and parking lane (on north	925-734-6400 925-734-6401
Contact Person: Ruchi Mathur Phone: Name of Company: SOMA Environmental Engineering Fax: Address of Company: 6620 Owens Drive, Suite A, Pleasanton, CA 9458 Describe type of work to be performed: Eastbound lane shift and parking lane (on nort Blvd, south of 2844 Mountain Blvd, Oakland for the purpose of environmental drilling	925-734-6400 925-734-6401
Contact Person: Ruchi Mathur Phone: Name of Company: SOMA Environmental Engineering Fax: Address of Company: 6620 Owens Drive, Suite A, Pleasanton, CA 9458 Describe type of work to be performed: Eastbound lane shift and parking lane (on nort Blvd, south of 2844 Mountain Blvd, Oakland for the purpose of environmental drilling	925-734-6400 925-734-6401 8 h side) closure on Mountain

Please

- A. Drawing Area: The full width of all streets adjacent to the site MUST be included in the drawing. Include the entire block in which your work is located for every street that is adjacent to your site.
- B. Include Street Names, Direction of Traffic on the Street, and North Arrow
- C. Show Existing Number of Lanes in all Directions (with any pavement arrows)
- D. Check the Box(s) that Apply: All checked items MUST be shown on the drawing

Lane Closure

Street Closures (must provide detour plan) Use of Median

Use Parking Lane

Sidewalk Closure

(must provide pedestrian walk way) 🛶 💖 🔑

- d Dimendi. E. Show All Dimensions of street widths (curb to curb), lane widths, sidewalk widths, and work area dimension. (Note: Traffic Control Application / Plans missing the above information will not be accepted or processed.)
- F. Show the Name and Locations of all advanced warning devices, flaggers, delineators, warning and construction signs to be used.

X

RENEWAL PROCESS: Resubmit a completed Traffic Control Application with the old approved plan (with the necessary modifications / changes to the plans).

FOR HELP in preparing a traffic control plan, see Temporary Traffic Control Pocket Reference Guide 2007, Work Area Traffic Control Handbook 2006, or the California Manual on Uniform Traffic Control (MUTCD) 2003, Chapter 6. an Gameria http://www.dot.ca.gov/hg/traffops/signtech/mutcdsupp/ca_mutcd.htm For City website: http://www.oaklandpw.com/Page548.aspx

* Name the streets that are the boundaries of your work area.

641 852

and Clares s

SPECIAL PROVISION 7-10.1 TRAFFIC REQUIREMENTS

Project Name:
Project Number: TSD-16-0046
Reviewed By: J.Watson / 16 11 (W)
Date: 3/10/2016
Permit good from 3/14/2016

and 3/16/2016

ADD NEW SUBSECTION TO READ: **SP 7-10.1.4 Vehicular Traffic**

Attention is directed to Section 7-10. Public Convenience and Safety, of the City of Oakland Standard Specification for Public Works Construction, 2006 Edition (Include this paragraph for p-jobs, excavation permits or obstruction permits).

The Contractor shall conduct its work in such a manner as to provide public convenience and safety and according to the provisions in this subsection. The provisions shall not be modified or altered without written approval from the Engineer.

Standard traffic control devices shall be placed at the construction zone according to the latest edition of the Work Area Traffic Control Handbook or Manual on Uniform Traffic Control Devices (MUTCD), Chapter 6 – "Traffic Controls for Construction and Maintenance Work Zone," or as directed by the Engineer.

All trenches and excavations in any public street or roadway shall be back filled and opened to traffic, or covered with suitable steel plates securely placed and opened to traffic at all times except during actual construction operations unless otherwise permitted by the Engineer.

Each section of work shall be completed or temporarily paved and open to traffic in not more than 5 days after commencing work unless otherwise permitted in writing by the Engineer.

Where construction encroaches into the sidewalk area, a minimum of 5 ½ feet of unobstructed sidewalk shall be maintained at all times for pedestrian use. Pedestrian barricades, shelter, and detour signs per Caltrans standards may be required.

The contractor shall conduct its operation in such a manner as to leave the following traffic lanes unobstructed and in a condition satisfactory for vehicular travel during the Obstruction Period. At all times traffic lanes will be restricted and reopened to travel. Emergency access shall be provided at all times.

Street Name Limits	Obstruction	North	South	East	West
	Period	Bound	Bound	Bound	Bound
Mountain Blvd between Woodside Glen Ct and Werner Ct	Mon. – Fri. 9AM – 4PM	N/A	N/A	One10' lane open minimum	One10' lane open minimum

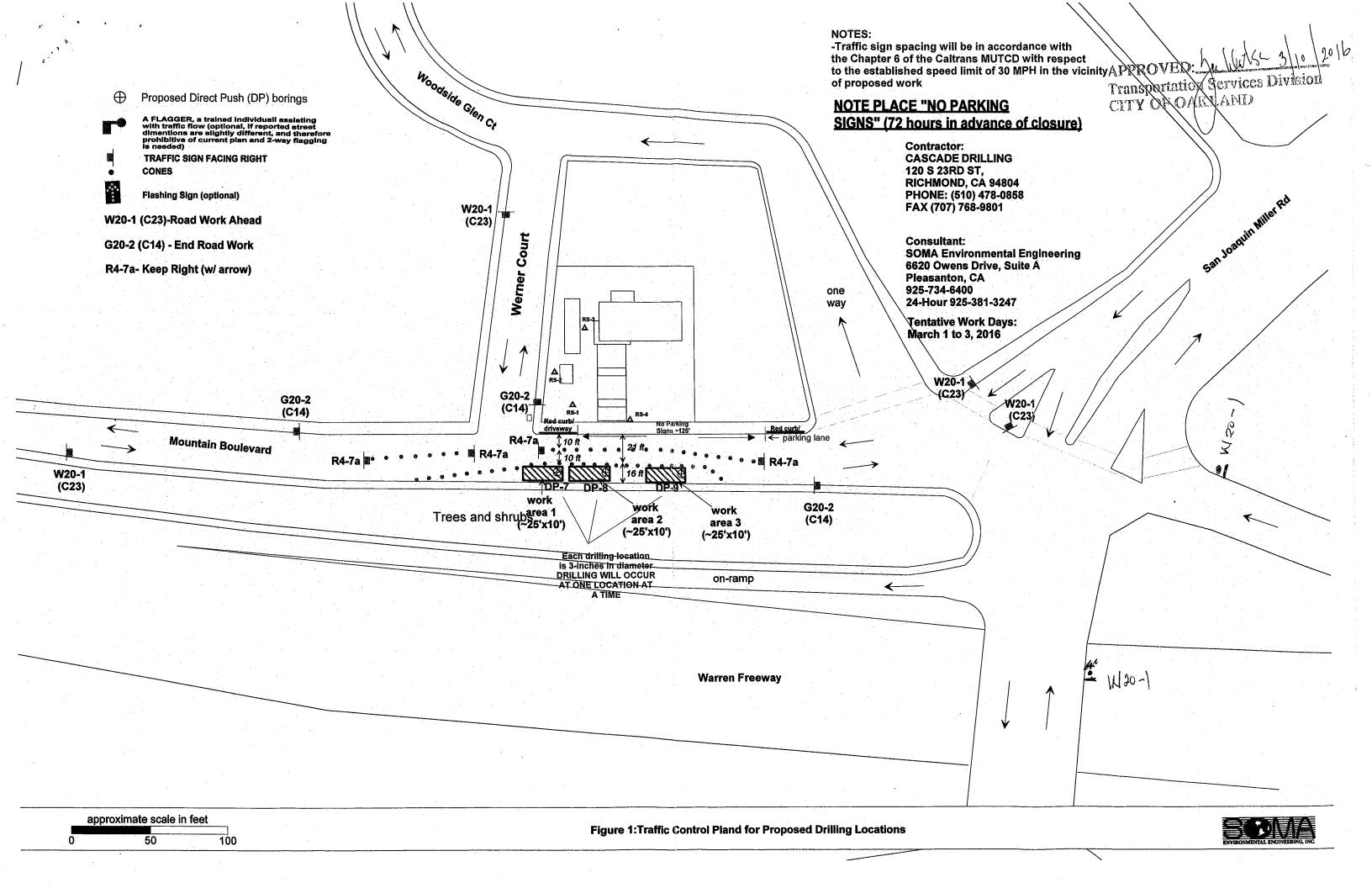
The Contractor Shall Also include all check item:

1.	Design a construction traffic control plan and submit (2) copies to the Engineer for approval prior to starting any
	work.
2.	
	3 days of completion of work or the final pavement lift.
3.	Provide advance notice to Oakland Police at (510) 777-3333 (24-hrs) and Oakland Fire at (510) 238-3331 (2-rhs)
	when a single lane of traffic or less is provided on any street.
	☑ Provide 72-hour advance notice to AC Transit at (510) 891-4909 when affecting a bus stop.
5.	For Caltrans roadways, ramps, or maintained facilities, the Contractor shall obtain appropriate permits and notify
	the Traffic Management Center 24 hours in advance of any work.
6.	☐ Flagger control is required. Certified Flagger is required.
7.	Pedestrian walkway by K-rail, Canopy or Plywood is required. (See detour plan)
	Pedestrian traffic shall be maintained and guided through the project at all times.

10. 🖾 Allow all traffic movement at intersection.

9. Provide advance notice to Business and Residence within 72-hours.

Nothing specified herein shall prohibit emergency work and/or repair necessary to ensure public health and safety.



Minimum requirements: ☐Signed Company Letter of Agency ☐State License ☐City Business License
□Sewer work within property: C-36, C-42, A □Excavation: C-42, C-57, A □Curb, gutter, sidewalk: C-8, B, A



Department of Public Works | 4th Floor | 510-238-3651 250 Frank H. Ogawa Plaza | Oakland, California 94612

Issued to Licensed Contractors/Agent ONLY

SL - X Permit Valid 90 Days; CGS Permit Valid 30 Days from Date of Issuance

Work Type: ☐ Repair/Replace Sewer on property ☐ Abar	ndon Sewer								
☐ Sewer Excavation ☐ Soil Boring / Monitoring well Excavation	□ UGS Tank Excavation Related to:								
CGS Work Type: ☐ Repair/Replace curb, gutter, sidewalk (S/V	V), Driveway (D/W) Notice to Repair #: NTR								
□ S/W Sq. Ft Sidewalk Under-drain? □ No □ Yes: How Many? □ Repair D/W Sq. Ft									
☐ New or wider driveway (Approved plans required) ☐ Zoning Revi	ew Required for new or wider driveway D/W Sq. Ft								
☐ Curb Linear Ft ☐ Gutter Sq. Ft	Driveway on unimproved street? ☐ Yes ☐ No								
Site Address / Nearest Cross Street 2844 Mountain Blvd., Oakland / between Werner Ct. and Woodside Glen Ct.	Property Owner Name Tejindar Singh								
Print Name Permittee: Mansour Sepehr/ SOMA Environmental Engineering, Inc.	Related to Existing Permit?: No								
Signature of Permittee	Date March 8, 2016 Zoning Appl No.:								
Business Name SOMA Environmental Engineering, Inc. Contractor' License #; Class 938110; C-57; (CASCADE DRILLING LP)									
Phone Number (925) 734-6400 Email rmathur@somaenv.com									
SL160 X160	_ CGS16 Issued by Date								

General Permit Conditions

- 1- Not less than two (2) business days prior to starting work, you must call to schedule site inspections with the following:
- ☐ For excavation work: *Underground Service Alert (USA) phone 811 / 800-227-2600; PWA Right-of-Way Inspections phone 510-238-3651.
 - *State law, Government Code Section 4216-4216.9, requires you call and obtain an Underground Service Alert (USA)#: 118334 (street), 118342 (on-site)
- ☐ For sewer lateral work: Right-of-Way Inspections phone 510-238-3651.
- ☐ For sewer main work: Public Works Agency phone 510-615-5566.
- ☐ For CGS sidewalk, curb, gutter, driveway work: phone 510-238-3651
- ☐ For driveway approach on unimproved streets, phone 510-482-7832.
- 2- City-maintained improvements (such as parking meters, sign posts, survey monuments, piping, etc.) shall not be disturbed by permittee. For more information, contact an Inspector at 510-238-3499.
- 3- All work shall conform to: APWA "Green Book" standards, as currently amended by the City of Oakland; City of Oakland Standard Details; Special Provisions; other requirements as indicated on the plans/conditions of approval; California Department of Industrial Relations (OSHA) regulations and related regulations as governed by Federal and State laws and requirements.
- 4- A separate Obstruction permit, with a Traffic Control Plan, shall be required for equipment and/or material storage in the Public Right-of-Way, and for traffic lane, parking lane closure and/or sidewalk barricades.
- 5- OMC Section 12.12.110 No work that will interfere with traffic shall be performed in any limited operation public street or roadway during the hours of seven a.m. to nine a.m. and four p.m. to six p.m. (except Sundays and Holidays). No equipment, construction materials or excavated material that will interfere with traffic shall be stored on any public street or roadway during hours noted above. All trenches and excavations in any public street or roadway shall be backfilled and opened to traffic, or covered with suitable steel plates securely placed and opened to traffic at all times except during actual construction operations. Each section of work shall be completed or temporarily paved and open to traffic in not more than five days after commencing work unless otherwise permitted in writing by the City Engineer.
- 6- OMC Section 12.12.150 If the work is unduly delayed, for whatever reason, the Director of Public Works, or his or her authorized representative, may order the condition remedied. If the permittee does not take immediate action, the Office of Public Works shall have full power to complete said work, or may contract for the completion of said work, and the cost thereof, including administrative expense, shall be charged to the permittee.

As permittee, I certify that I have read and agree to these requirements including provisions of Chapter 9 of Division 3 of the Business and Professions Code and that my license is in full force and effect and state that the information given is true and correct and make this statement under penalty of law. Furthermore I affirm that I have Worker's Compensation Insurance. This permit is issued pursuant to all provisions of Title 12, Chapter 12.12 of the Oakland Municipal Code and is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in the consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void after the number of days mentioned herein unless an extension is granted by Public Works Agency Director.

APPENDIX B

BORING LOGS



PAGE 1 OF 3

PROJECT: 5082

DATE DRILLED: March 16, 2016

SITE LOCATION: 2844 Mountain Blvd., Oakland

CASING ELEVATION: NA

DRILLER: Cascade Drilling

First Encountered GW: 13 feet bgs

DRILLING METHOD: Direct Push

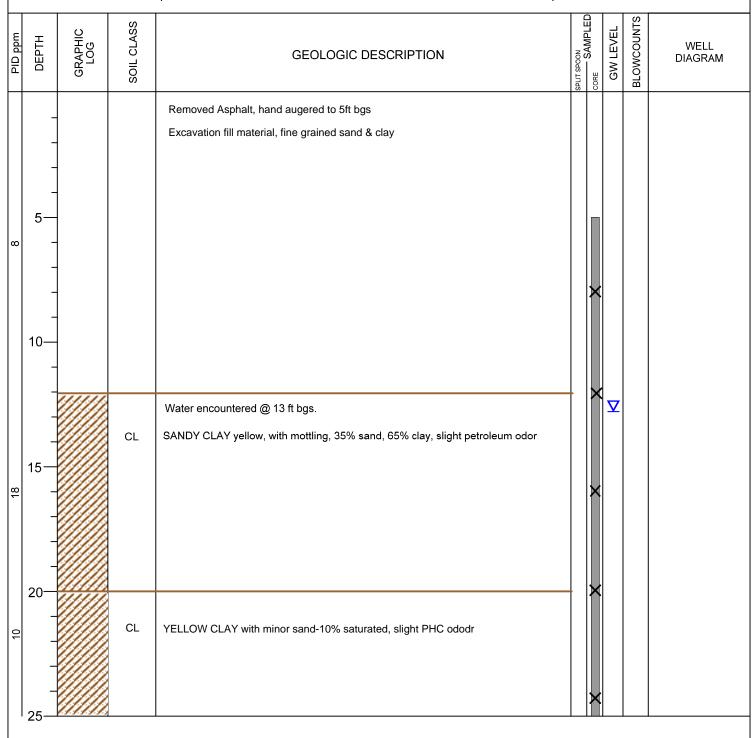
T.O.C. TO SCREEN: NA

BORING DIAMETER: 1 inch

SCREEN LENGTH: NA

LOGGED BY: M. Sepehr

APPROVED BY: M. Sepehr





PAGE 2 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

LOGGED BY: M. Sepehr

DATE DRILLED: March 16, 2016

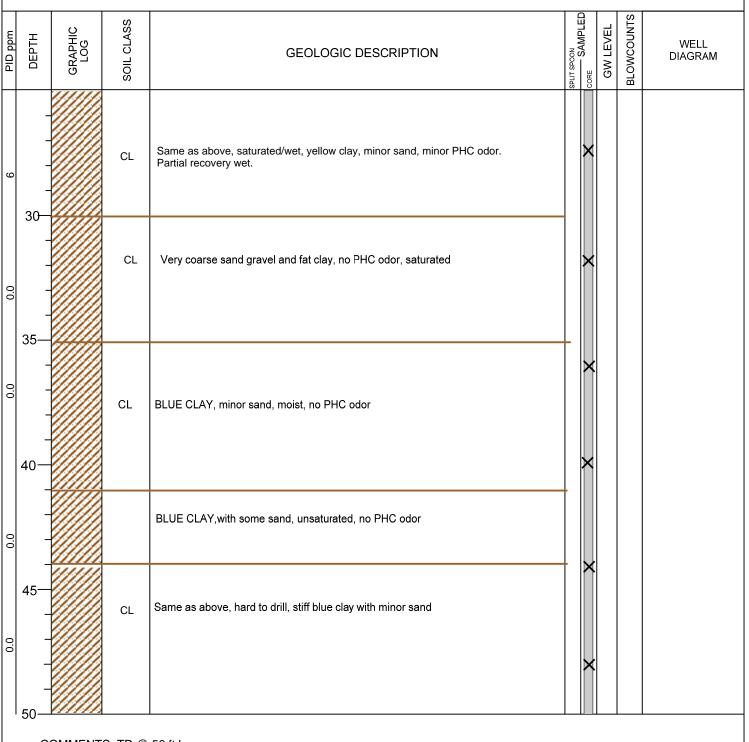
CASING ELEVATION: N/A

First Encountered GW: 13 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr





PAGE 3 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

LOGGED BY: M. Sepehr

DATE DRILLED: March 16, 2016

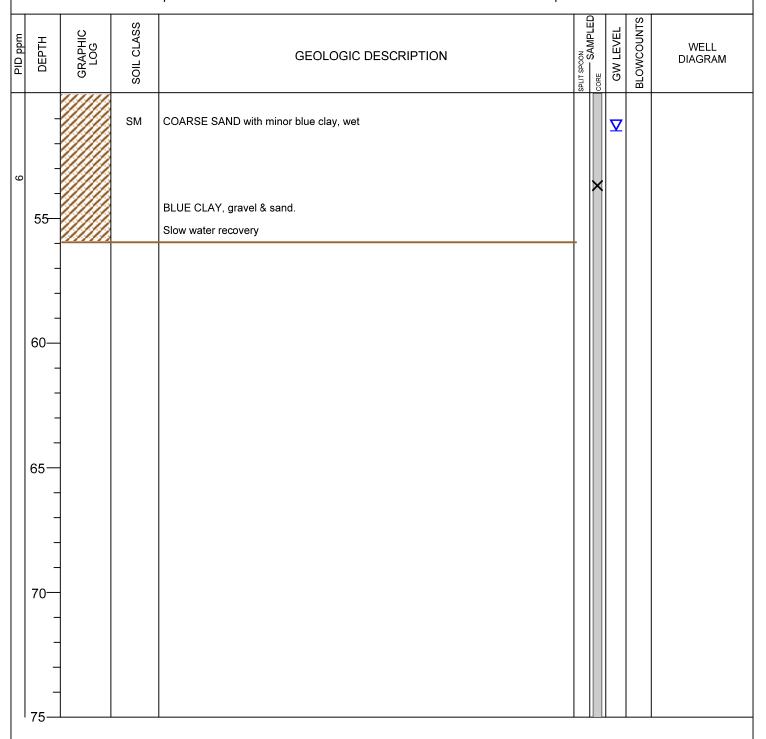
CASING ELEVATION: N/A

First Encountered GW: 13 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr





PAGE 1 OF 3

PROJECT: 5082

DATE DRILLED: March 14, 2016

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

CASING ELEVATION: N/A

DRILLER: Cascade Drilling

First Encountered GW: 19 Feet bgs

DRILLING METHOD: Direct Push

T.O.C. TO SCREEN: N/A

BORING DIAMETER: 1 inch

SCREEN LENGTH: N/A

LOGGED BY: M. Sepehr

APPROVED BY: M. Sepehr

					_	_		_	
PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON	CORE SAMPLED	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
0.0				Hand Augered to 5 ft bgs WELL GRADED GRAVEL SAND: Reddish-brown, moist, no Petroleum Hydrocarbon (PHC) odor, 75% fine gravel, 20% fine- to coarse-grained sand.					
0.0	5		CL	SANDY FAT CLAY: Yellowish, moist, coarse sand content increases by depth, medium dry strength, slow dilatancy, clay with medium plasticity plasticity, no PHC odor.		X			
0.0	10— - - -					×			
3.5	15— - - -					×	∇		
0.0	20— - - -			First water was encountered at 19'		×			
0.0									



PAGE 2 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

LOGGED BY: M. Sepehr

DATE DRILLED: March 14, 2016

CASING ELEVATION: N/A

First Encountered GW: 19 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	NOOds 117ds	CORE	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
0.0	30		CL	Becomes dark clay with some sands 10% lesser water content until 40%, no pHC odor, moist		×			
0.0	- - - 35—					×			
	- 40— - -			Same as above. Dry, blue/dark fat clay with some sand and gravel-20%, no PHC odor		×			
0.0 0.0	- 45— - -		CL	Same as above, blue clay with finer sand, no PHC odor Water was encountered at 46'		×			
	- 50—								



PAGE 3 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

LOGGED BY: M. Sepehr

DATE DRILLED: March 14, 2016

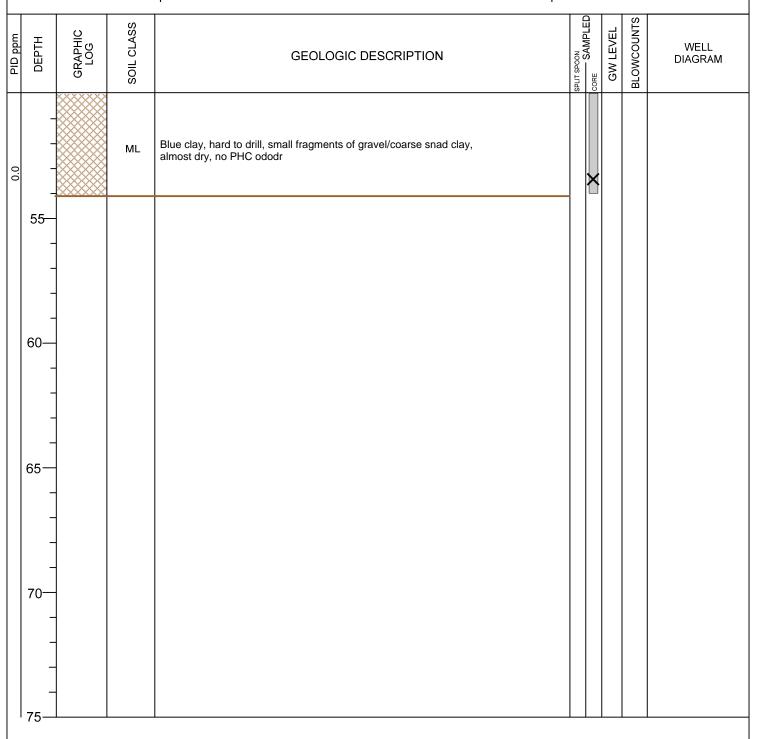
CASING ELEVATION: N/A

First Encountered GW: 19 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr





PAGE 1 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

LOGGED BY: M. Sepehr

DATE DRILLED: March 15, 2016

CASING ELEVATION: N/A

First Encountered GW: 18 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr

PID ppm	DEPTH	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	SPLIT SPOON	CORE	GW LEVEL	BLOWCOUNTS	WELL DIAGRAM
0.0	-		СН	Hand Augered to 5 ft bgs COARSE SAND, gravel with some clay					
	5— - -		- Cl	VELLOW FAT OLAV with high planticity primary and procedure and the PUC adapt		×			
0.0	- 10—		CL	YELLOW FAT CLAY with high plasticity, minor sand, unsaturated, no PHC odor.					
0.0	- - 15—					×			
3.5	-		CL	BLUE CLAY with some sand 25% and course gravel		×	▽		
0.0	20— -					×			
	- 25—			56 ft bas		×			



PAGE 2 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

LOGGED BY: M. Sepehr

DATE DRILLED: March 15, 2016

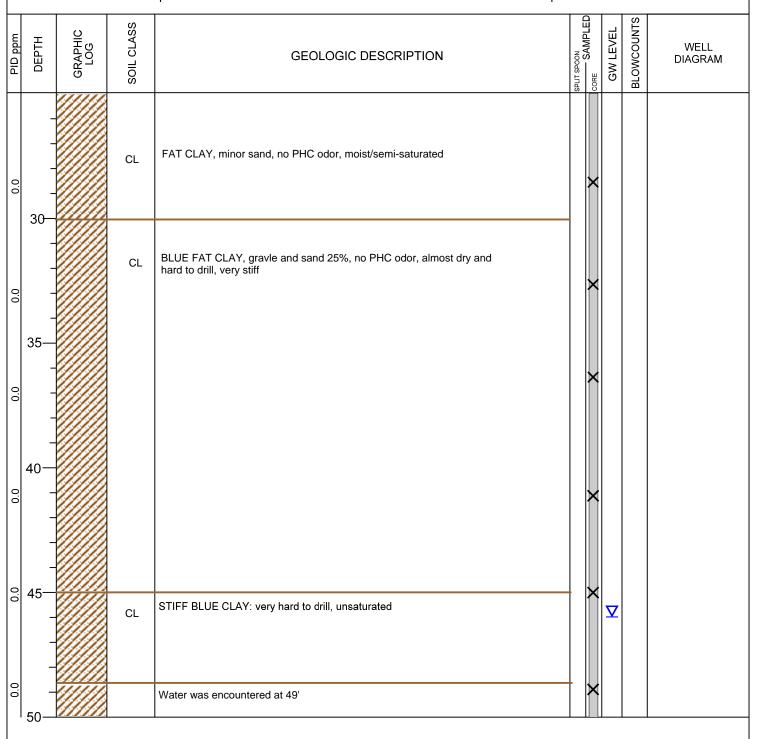
CASING ELEVATION: N/A

First Encountered GW: 18 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr





PAGE 3 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

COMMENTS: TD @ 56 ft bgs

LOGGED BY: M. Sepehr

DATE DRILLED: March 15, 2016

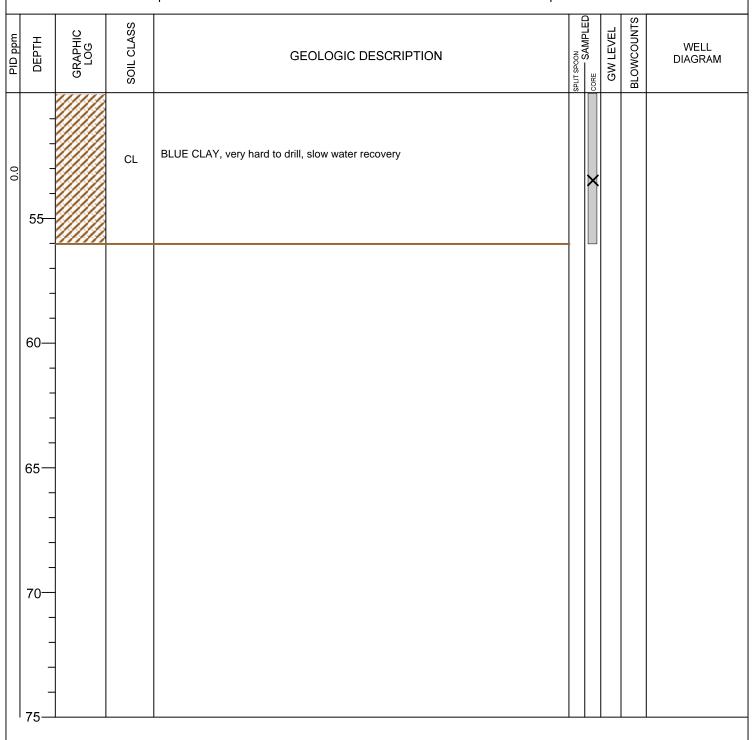
CASING ELEVATION: N/A

First Encountered GW: 18 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr





PAGE 1 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

LOGGED BY: M. Sepehr

DATE DRILLED: March 15, 2016

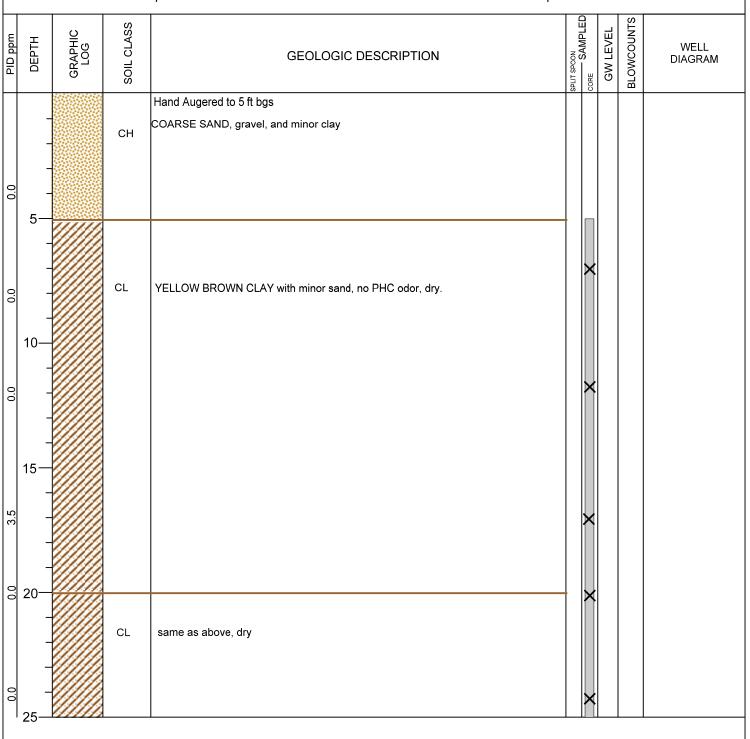
CASING ELEVATION: N/A

First Encountered GW: 45 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr





PAGE 2 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

LOGGED BY: M. Sepehr

DATE DRILLED: March 15, 2016

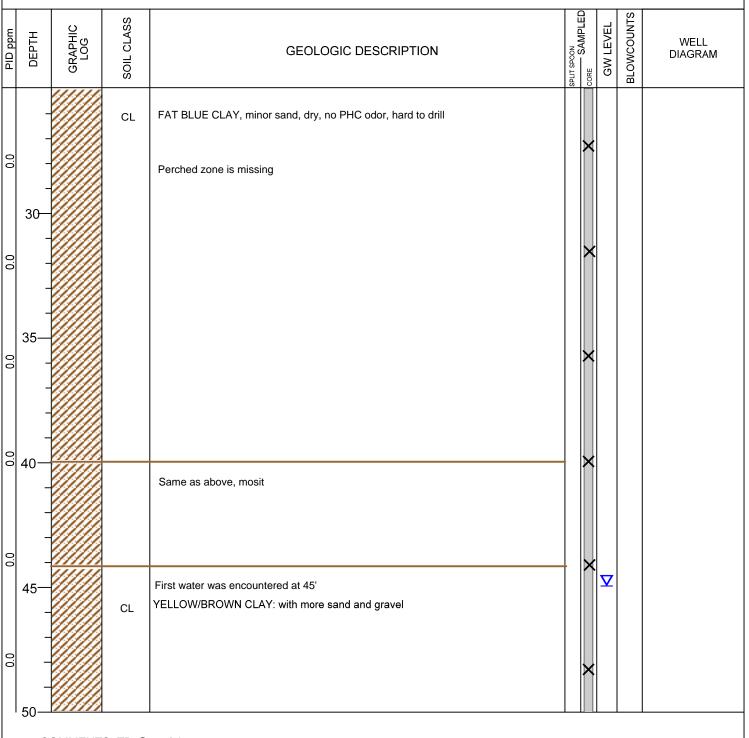
CASING ELEVATION: N/A

First Encountered GW: 45 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr





PAGE 3 OF 3

PROJECT: 5082

SITE LOCATION: 2844 Mountain Blvd., Oakland, CA

DRILLER: Cascade Drilling

DRILLING METHOD: Direct Push

BORING DIAMETER: 1 inch

LOGGED BY: M. Sepehr

COMMENTS: TD @ 54 ft bgs

DATE DRILLED: March 15, 2016

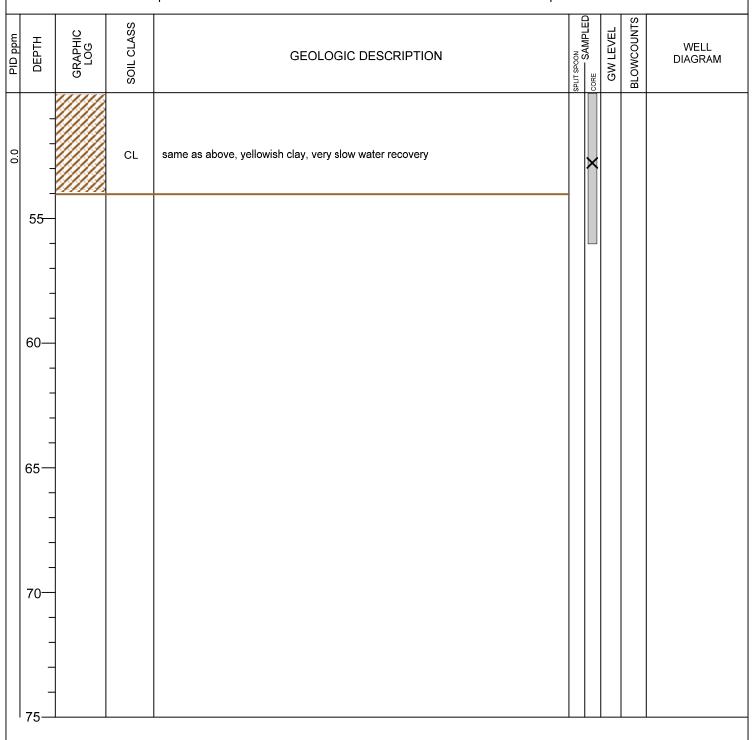
CASING ELEVATION: N/A

First Encountered GW: 45 Feet bgs

T.O.C. TO SCREEN: N/A

SCREEN LENGTH: N/A

APPROVED BY: M. Sepehr



APPENDIX C

LABORATORY REPORTS AND CHAIN OF CUSTODY FORMS



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

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

Laboratory Job Number 275217 ANALYTICAL REPORT

SOMA Environmental Engineering Inc. Project : 5082

6620 Owens Dr. Location: 2844 Mountain Blvd, Oakland

Pleasanton, CA 94588 Level : II

<u>Sample</u>	<u> ID</u>	<u>Lab ID</u>
DPT-6	@16	275217-001
DPT-6	@44	275217-002
DPT-7	@20	275217-003
DPT-7	@48	275217-004
DPT-8	@24	275217-005
DPT-8	@36	275217-006
DPT-8	@45	275217-007
DPT-9	@24	275217-008
DPT-9	@48	275217-009
DPT-6	A	275217-010
DPT-6	В	275217-011
DPT-7	A	275217-012
DPT-7	В	275217-013
DPT-8	A	275217-014
DPT-8	В	275217-015
DPT-9	В	275217-016

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

Signature:

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226

CA ELAP# 2896, NELAP# 4044-001

Date: <u>03/24/2016</u>



CASE NARRATIVE

Laboratory number: 275217

Client: SOMA Environmental Engineering Inc.

Project: 5082

Location: 2844 Mountain Blvd, Oakland

Request Date: 03/17/16 Samples Received: 03/17/16

This data package contains sample and QC results for nine soil samples and seven water samples, requested for the above referenced project on 03/17/16. The samples were received cold and intact.

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

No analytical problems were encountered.

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

Low surrogate recovery was observed for o-terphenyl in DPT-7 B (lab # 275217-013). There was no extra volume submitted to re-extract. No other analytical problems were encountered.

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

No analytical problems were encountered.

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

DPT-6 B (lab # 275217-011) and DPT-7 A (lab # 275217-012) had pH greater than 2. DPT-6 B (lab # 275217-011) had multiple vials combined due to sediment. No other analytical problems were encountered.

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

Low response was observed for tert-butyl alcohol (TBA) in the CCV analyzed 03/20/16 18:20; this analyte met minimum response criteria, and affected data was qualified with "b". No other analytical problems were encountered.

CHAIN OF CUSTODY

Analyses			8560 808 8260	928	e e	Scav	halen ss, Pb	Napht	Oxyg	TPH-9, T 3asoline PPH-4 80 PPH-9, B) *	*	*	*	*	*	* + +	*	*	*	*	*	EÇEIVED BY:	1/2/18 3/16/16	12:45 PM 3/7/10 T 4	13 MMM 12 1111
		L/2217 # NBO1	Monday Company	1	Report To: Joyce Bobek	pany: SOMA Environmental	Telephone: 925-734-6400	925-734-6401	Matrix	# of Containers	*	*	*	*	-		* *		* * * * * * * * * * * * * * * * * * *	* 500-ml Amber *	* * * * * * * * * * * * * * * * * * *	* 500-ml Amber *	RELINQUISHED BY:	3116/16 3:00P	Lule Kast 318716 12:1	11 91/E//E
Curtis & Tompkins, Ltd	ce 1878	2323 Fifth Street Berkeley, CA 94710	(510)486-0532 Fax		Project No: 5082	Project Name: 2844 Mountain Blvd., Oakland Company:	Turnaround Time: Standard Telep	Fax:		Sample ID. Sampling Date							DPT-8 @45 3/15/16 11:20 DPT-9 @24		DPT-6 A 3/16/16 9:15		DPT-6 B 3/16/16 11:15		Notes: EDF OUTPUT REQUIRED	cas Ox. IBA, DIPE, ETBE, TAME Pb Scavengers: 1.2-DCA, EDB		
Curt	Analyti		*		Project	Project	Turnaro			Lab No.	Ω	≈		<	T	5 č	T	\Box	egin Gine				Notes:	Pb Scave	Ethanol	

Analyses

CHAIN OF CUSTODY

Curtis & Tompkins, Ltd

Analyses		 928 908 908	28	e əue	Scav	halendas, Pb	Napht genate	Oxyg	TPH-g, T BTEX, M Gasoline TPH-d, E TPH-g, E	*	*	*	*	*	*	*	\dashv	*	*		REÇEIVED BY:	Me. Moth 5/16/163:00	SHO WHEN THE	SITTING HAS	VILLE DATE LIME
		nier: Mancour Senahr		Report To: Joyce Bobek	pany: SOMA Environmental	Telephone: 925-734-6400	925-734-6401	Matrix	Soil Waster Containers	* * * * * * * * * * * * * * * * * * *	* 1 L Amber *	* 4 VOAs * *	* 1 L Amber *	*	* 2-500-ml Amber *	4 VOAs *	er	4 VOAs *	* 500-ml Amber		RELINQUISHED BY:	3/16/16 5:00/1	Lul Mart 3/17/16 12:45	SALVINE POR LINE	The control was
Analytical observations Giron 4040	Analytical Laboratory Silice 1678	 		Project No: 5082 Repo	Project Name: 2844 Mountain Blvd., Oakland Comp	Turnaround Time: Standard Telep	Fax:		Lab Sample ID. Sampling Date No.	(2 DPT-7 A 3/14/16 10:45		3/14/16 12:45		4 DPT-8 A 3/15/16 9:30		3/15/16 10:37	d c	15 JULI-9 B 3/13/16 13:52			Notes: EDF OUTPUT REQUIRED	Gas Ox: TBA, DIPE, ETBE, TAME Ph Scayengers: 1 2-DCA EDR	Ethanol		

COOLER RECEIPT CHECKLIST



Login # 275217 Date Received 3/17/16 Nu	mber of coolers
Client SOM & Env. Project 5082	7
Date Opened 3/17 By (print) CJN (sign)	MMM
Date Logged in 3/18 By (print) (sign)	+
Did cooler come with a shipping slip (airbill, etc) Shipping info	YES NO
2A. Were custody seals present? YES (circle) on cooler How many Name	Date
2B. Were custody seals intact upon arrival? 3. Were custody papers dry and intact when received? 4. Were custody papers filled out properly (ink, signed, etc)? 5. Is the project identifiable from custody papers? (If so fill out top of 6. Indicate the packing in cooler: (if other, describe)	YES NO YES NO
☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ Cloth material ☐ Cardboard ☐ Styrofoam 7. Temperature documentation: * Notify PM if temperature excee	☐ None ☑ Paper towels
Type of ice used: ☐ Wet ☐ Blue/Gel ☑ None Te	mp(°C) 11,4
☐ Temperature blank(s) included? ☐ Thermometer#	
☐ Samples received on ice directly from the field. Cooling proces	
8. Were Method 5035 sampling containers present? If YES, what time were they transferred to freezer? 9. Did all bottles arrive unbroken/unopened? 10. Are there any missing / extra samples? 11. Are samples in the appropriate containers for indicated tests? 12. Are sample labels present, in good condition and complete? 13. Do the sample labels agree with custody papers? 14. Was sufficient amount of sample sent for tests requested? 15. Are the samples appropriately preserved? 16. Did you check preservatives for all bottles for each sample? 17. Did you document your preservative check? (pH strip lot# 18. Did you change the hold time in LIMS for unpreserved VOAs? 19. Did you change the hold time in LIMS for preserved terracores? 20. Are bubbles > 6mm absent in VOA samples? 21. Was the client contacted concerning this sample delivery? If YES, Who was called? By COMMENTS	YES NO N/A



Detections Summary for 275217

Results for any subcontracted analyses are not included in this summary.

Client : SOMA Environmental Engineering Inc.

Project : 5082

Location: 2844 Mountain Blvd, Oakland

Client Sample ID: DPT-6 @16 Laboratory Sample ID: 275217-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Met	hod	Prep	Method
MTBE	40		4.9	ug/Kg	As Recd	0.9881	EPA	8260B	EPA	5030B

Client Sample ID : DPT-6 @44 Laboratory Sample ID: 275217-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	5.5	Y	1.0	mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B

Client Sample ID: DPT-7 @20 Laboratory Sample ID: 275217-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	6.3	Y	1.0	mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B
tert-Butyl Alcohol (TBA)	6,000		5,000	ug/Kg	As Recd	50.00	EPA 8260B	EPA 5030B
MTBE	3,300		250	ug/Kg	As Recd	50.00	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	290		250	ug/Kg	As Recd	50.00	EPA 8260B	EPA 5030B

Client Sample ID: DPT-7 @48 Laboratory Sample ID: 275217-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	1.7	Y	1.0	mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B

Client Sample ID: DPT-8 @24 Laboratory Sample ID: 275217-005

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
MTBE	500		48	ug/Kg	As Recd	9.615	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	45		4.6	ug/Kg	As Recd	0.9225	EPA 8260B	EPA 5030B

Client Sample ID: DPT-8 @36 Laboratory Sample ID: 275217-006

No Detections

Client Sample ID: DPT-8 @45 Laboratory Sample ID: 275217-007

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
MTBE	8.2		4.5	ug/Kg	As Recd	0.9058	EPA 8260B	EPA 5030B

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Client Sample ID : DPT-9 @24

Laboratory Sample ID :

275217-008

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	2.4	Y	1.0	mg/Kg	As Recd	1.000	EPA 8015B	EPA 3550B

Client Sample ID : DPT-9 @48

Laboratory Sample ID : 275217-009

No Detections

Client Sample ID : DPT-6 A

Laboratory Sample ID:

275217-010

Analyte	Result Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	230 Y	61	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
tert-Butyl Alcohol (TBA)	140	20	ug/L	As Recd	2.000	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	27	1.0	ug/L	As Recd	2.000	EPA 8260B	EPA 5030B
MTBE	770	5.0	ug/L	As Recd	10.00	EPA 8260B	EPA 5030B

Client Sample ID : DPT-6 B Laboratory Sample ID :

275217-011

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
MTBE	7.7		0.50	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : DPT-7 A Laboratory Sample ID :

275217-012

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep	Method
Diesel C10-C24	83	Y	50	ug/L	As Recd	1.000	EPA 8015B	EPA	3520C
tert-Butyl Alcohol (TBA)	40,000		1,000	ug/L	As Recd	100.0	EPA 8260B	EPA	5030B
Methyl tert-Amyl Ether (TAME)	730		10	ug/L	As Recd	20.00	EPA 8260B	EPA	5030B
MTBE	5,900		100	ug/L	As Recd	200.0	EPA 8260B	EPA	5030B

Client Sample ID : DPT-7 B

Laboratory Sample ID:

275217-013

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep	Method
Diesel C10-C24	78	Y	63	ug/L	As Recd	1.000	EPA 8015B	EPA	3520C
tert-Butyl Alcohol (TBA)	310		100	ug/L	As Recd	10.00	EPA 8260B	EPA	5030B
Methyl tert-Amyl Ether (TAME)	56		1.3	ug/L	As Recd	2.500	EPA 8260B	EPA	5030B
MTBE	780		5.0	ug/L	As Recd	10.00	EPA 8260B	EPA	5030B

Client Sample ID : DPT-8 A

Laboratory Sample ID:

275217-014

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	210	Y	63	ug/L	As Recd	1.000	EPA 8015B	EPA 3520C
tert-Butyl Alcohol (TBA)	4,500		630	ug/L	As Recd	62.50	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	2,200		31	ug/L	As Recd	62.50	EPA 8260B	EPA 5030B
MTBE	30,000		170	ug/L	As Recd	333.3	EPA 8260B	EPA 5030B
m,p-Xylenes	70		31	ug/L	As Recd	62.50	EPA 8260B	EPA 5030B

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Client Sample ID : DPT-8 B

Laboratory Sample ID:

275217-015

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
tert-Butyl Alcohol (TBA)	48		10	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Methyl tert-Amyl Ether (TAME)	27		0.50	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
MTBE	310		2.5	ug/L	As Recd	5.000	EPA 8260B	EPA 5030B
Benzene	3.5		0.50	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Toluene	0.50		0.50	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
Ethylbenzene	1.9		0.50	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
m,p-Xylenes	2.6		0.50	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B
o-Xylene	0.81		0.50	ug/L	As Recd	1.000	EPA 8260B	EPA 5030B

Client Sample ID : DPT-9 B

Laboratory Sample ID:

275217-016

No Detections



Total Volatile Hydrocarbons

Lab #: 275217 2844 Mountain Blvd, Oakland Location: EPA 5030B Client: Prep: SOMA Environmental Engineering Inc.

Project#: 5082 Analysis: EPA 8015B 1.000 Diln Fac: Matrix: Soil 233220 Units: mg/Kg Batch#: Basis: as received Received: 03/17/16

Field ID: DPT-6 @16 Sampled: 03/16/16 Type: SAMPLE Analyzed: 03/18/16

Lab ID: 275217-001

Analyte Result RLGasoline C7-C12 ND

0.95

Surrogate %REC Limits Bromofluorobenzene (FID) 103 78-138

DPT-6 @44 Field ID: Sampled: 03/16/16 SAMPLE Analyzed: 03/18/16 Type:

275217-002 Lab ID:

Analyte Result RL Gasoline C7-C12 ND 1.1

%REC Limits Surrogate Bromofluorobenzene (FID) 78-138

Field ID: DPT-7 @20 03/14/16 Sampled: Type: SAMPLE Analyzed: 03/18/16

Lab ID: 275217-003

Analyte Result RL

Gasoline C7-C12

%REC Limits Surrogate Bromofluorobenzene (FID) 78-138

Field ID: DPT-7 @48 Sampled: 03/14/16 Type: SAMPLE Analyzed: 03/18/16

Lāb ID: 275217-004

Analyte Result

Gasoline C7-C12 ND 1.0

Surrogate %REC Limits

Bromofluorobenzene (FID)

ND= Not Detected RL= Reporting Limit Page 1 of 3



Total Volatile Hydrocarbons

Lab #: 275217 Location: 2844 Mountain Blvd, Oakland Client: SOMA Environmental Engineering Inc. EPA 5030B Prep:

Analysis: Diln Fac: Project#: 5082 EPA 8015B Soil Matrix: 1.000 Units: mg/Kg Batch#: 233220 Basis: as received Received: 03/17/16

Field ID: DPT-8 @24 Sampled: 03/15/16 SAMPLE Type: Analyzed: 03/18/16

Lab ID: 275217-005

Result Analyte

Gasoline C7-C12 ND 1.0

Limits Surrogate %REC Bromofluorobenzene (FID) 100 78-138

Field ID: DPT-8 @36 Sampled: 03/15/16 SAMPLE 03/18/16 Type: Analyzed:

Lab ID: 275217-006

Result Analyte RLGasoline C7-C12 ND 0.97

%REC Limits Surrogate

78-138 Bromofluorobenzene (FID)

Field ID: DPT-8 @45 Sampled: 03/15/16 SAMPLE Analyzed: 03/19/16 Type:

Lab ID: 275217-007

Analyte Result Gasoline C7-C12 ND 1.1

%REC Limits Surrogate Bromofluorobenzene (FID) 78-138

DPT-9 @24 Field ID: Sampled: 03/15/16 03/19/16

Type: SAMPLE Analyzed: Lab ID: 275217-008

Result Analyte RLGasoline C7-C12 ND 1.1

%REC Limits Surrogate Bromofluorobenzene (FID) 100 78-138

ND= Not Detected RL= Reporting Limit

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3.0



Total Volatile Hydrocarbons 2844 Mountain Blvd, Oakland EPA 5030B Lab #: 275217 Location: SOMA Environmental Engineering Inc. Client: Prep: Analysis: Diln Fac: EPA 8015B Project#: 5082 Matrix: Soil 233220 Units: mg/Kg Batch#: Basis: as received Received: 03/17/16

Field ID: DPT-9 @48 Sampled: 03/15/16 Type: SAMPLE Analyzed: 03/19/16

Lab ID: 275217-009

Analyte Result RL
Gasoline C7-C12 ND 0.94

Surrogate %REC Limits
Bromofluorobenzene (FID) 103 78-138

Type: BLANK Analyzed: 03/18/16

Lab ID: QC827981

Analyte Result RL
Gasoline C7-C12 ND 1.0

Surrogate%RECLimitsBromofluorobenzene (FID)10178-138

ND= Not Detected RL= Reporting Limit Page 3 of 3

3.0



Batch QC Report

Total Volatile Hydrocarbons								
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland					
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B					
Project#:	5082	Analysis:	EPA 8015B					
Type:	LCS	Diln Fac:	1.000					
Lab ID:	QC827980	Batch#:	233220					
Matrix:	Soil	Analyzed:	03/18/16					
Units:	mg/Kg							

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.035	103	80-121

Surrogate	%REC	Limits	
Bromofluorobenzene (FID)	108	78-138	

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Batch QC Report

Total Volatile Hydrocarbons								
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland				
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B				
Project#:	5082		Analysis:	EPA 8015B				
Field ID:	ZZZZZZZZZ		Diln Fac:	1.000				
MSS Lab II	275143-001		Batch#:	233220				
Matrix:	Soil		Sampled:	03/15/16				
Units:	mg/Kg		Received:	03/15/16				
Basis:	as received		Analyzed:	03/18/16				

Type: MS Lab ID: QC827982

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.08225	10.64	9.791	91	50-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	108	78-138

Type: MSD Lab ID: QC827983

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.615	8.614	89	50-120	3	31



Total Extractable Hydrocarbons 2844 Mountain Blvd, Oakland Lab #: 275217 Location: EPA 3520C Client: SOMA Environmental Engineering Inc. Prep: Project#: 5082 Analysis: EPA 8015B 03/17/16 03/21/16 Matrix: Water Received: Units: ug/L Prepared: Diln Fac: 1.000 03/22/16 Analyzed: Batch#: 233290

Field ID: DPT-6 A Lab ID: 275217-010 SAMPLE 03/16/16 Type: Sampled:

Analyte Result RLDiesel C10-C24 230

Surrogate Limits o-Terphenyl 89 67-136

Field ID: DPT-6 B Lab ID: 275217-011 SAMPLE Sampled: 03/16/16 Type:

Analyte Result

%REC Limits Surrogate 67-136 o-Terphenyl

Field ID: DPT-7 A Lab ID: 275217-012 SAMPLE 03/14/16 Sampled: Type:

Analyte Result RL83 Y Diesel C10-C24 50

%REC Limits Surrogate o-Terphenyl 67-136

Field ID: DPT-7 B Lab ID: 275217-013 Type: SAMPLE Sampled: 03/14/16

Analyte Result Diesel C10-C24 78

Surrogate %REC Limits o-Terphenyl

Field ID: DPT-8 A Lab ID: 275217-014 03/15/16 SAMPLE Sampled: Type:

Analyte Result RLDiesel C10-C24 210

Surrogate %REC Limits o-Terphenyl 97

*= Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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26.0



Total Extractable Hydrocarbons 2844 Mountain Blvd, Oakland Lab #: 275217 Location: Client: SOMA Environmental Engineering Inc. EPA 3520C Prep: Analysis: Received: EPA 8015B 03/17/16 Project#: 5082 Matrix: Water 03/21/16 Units: ug/L Prepared: 1.000 Diln Fac: Analyzed: 03/22/16 233290 Batch#:

Field ID: DPT-8 B Lab ID: 275217-015 Type: SAMPLE Sampled: 03/15/16

Analyte Result Diesel C10-C24 ND

%REC Limits Surrogate 98 67-136 o-Terphenyl

Field ID: DPT-9 B Lab ID: 275217-016 SAMPLE Sampled: 03/15/16 Type:

Analyte Result RLDiesel C10-C24

Surrogate %REC Limits o-Terphenyl 88 67-136

Lab ID: Type: BLANK QC828271

Analyte Result RL Diesel C10-C24 ND

Surrogate %REC Limits o-Terphenyl 114 67-136

ND= Not Detected

RL= Reporting Limit

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26.0

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

Y= Sample exhibits chromatographic pattern which does not resemble standard



Batch QC Report

Total Extractable Hydrocarbons						
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3520C			
Project#:	5082	Analysis:	EPA 8015B			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC828272	Batch#:	233290			
Matrix:	Water	Prepared:	03/21/16			
Units:	ug/L	Analyzed:	03/22/16			

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,386	95	60-121

Surrogate	%REC	Limits
o-Terphenyl	120	67-136

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Total Extractable Hydrocarbons					
Lab #: 275217		Location:	2844 Mountain Blvd, Oakland		
Client: SOMA E	nvironmental Engineering Inc.	Prep:	EPA 3520C		
Project#: 5082		Analysis:	EPA 8015B		
Field ID:	ZZZZZZZZZZ	Batch#:	233290		
MSS Lab ID:	275135-003	Sampled:	03/13/16		
Matrix:	Water	Received:	03/15/16		
Units:	ug/L	Prepared:	03/21/16		
Diln Fac:	1.000	Analyzed:	03/22/16		

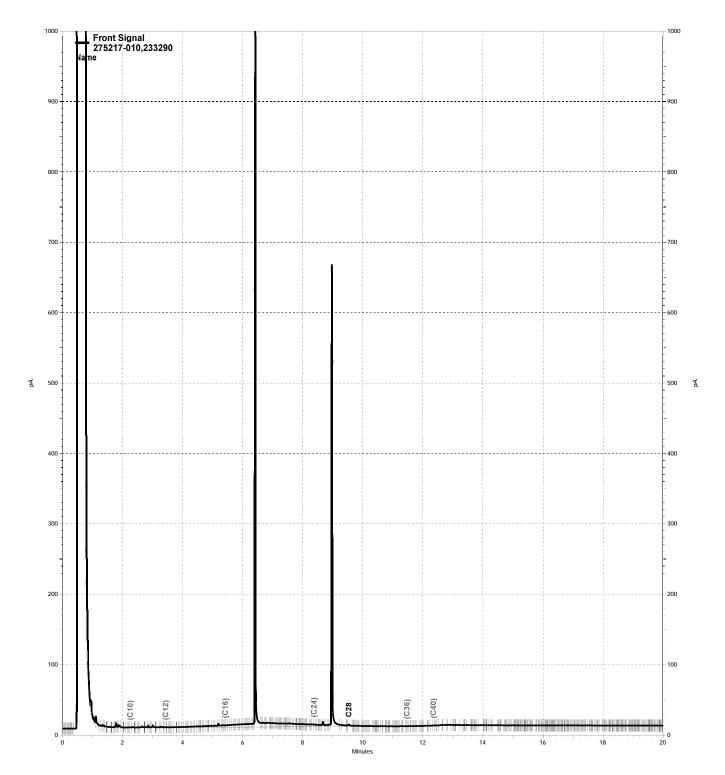
Type: MS Lab ID: QC828273

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	108.9	2,500	2,250	86	55-122

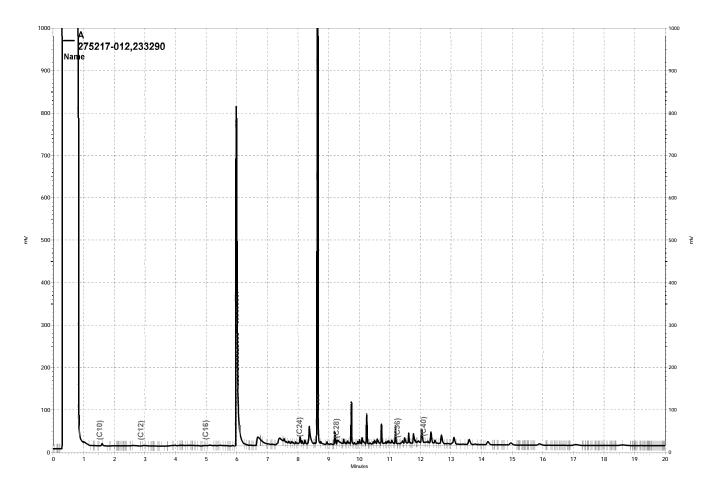
Type: MSD Lab ID: QC828274

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,444	93	55-122	8	53

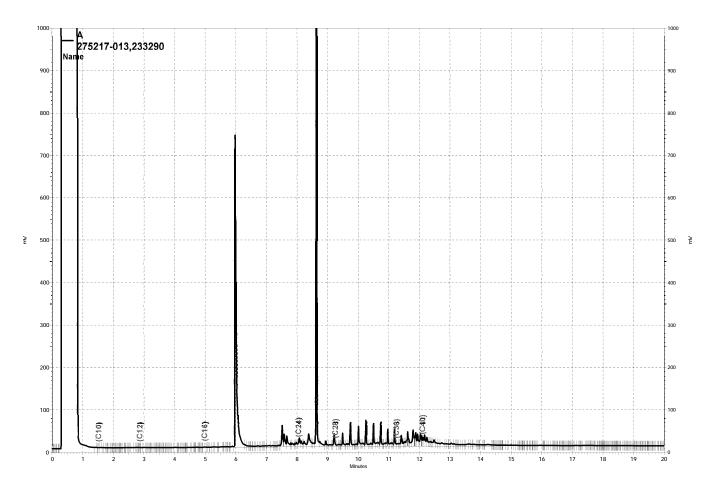
Surrogate	%REC	Limits	
o-Terphenyl	106	67-136	



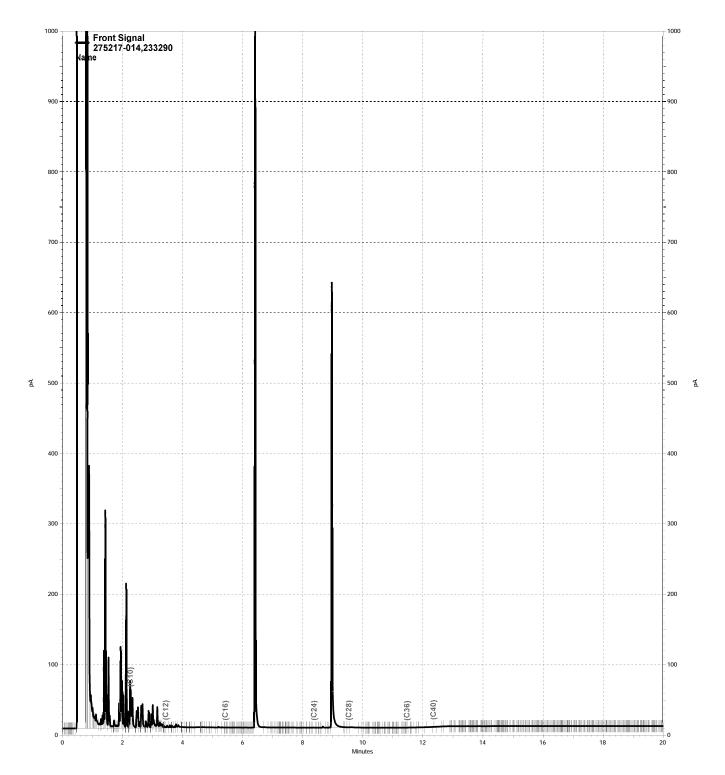
\\lims\gdrive\ezchrom\Projects\GC27\Data\082a013.dat, Front Signal



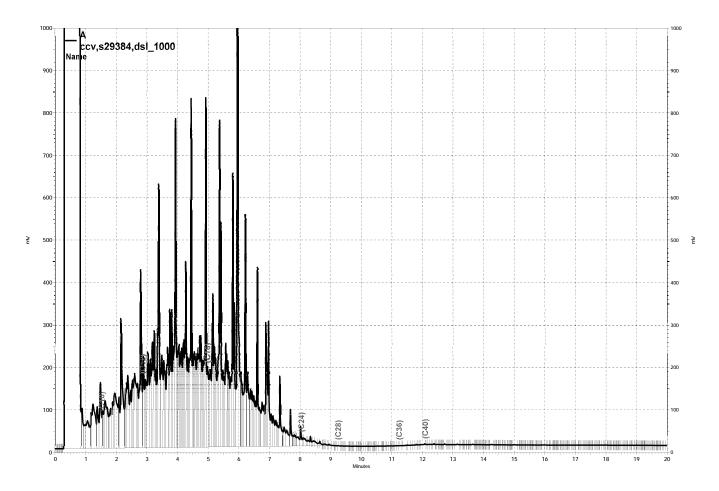
\Lims\gdrive\ezchrom\Projects\GC17A\Data\082a018, A



\Lims\gdrive\ezchrom\Projects\GC17A\Data\082a019, A



\lims\gdrive\ezchrom\Projects\GC27\Data\082a017.dat, Front Signal



\Lims\gdrive\ezchrom\Projects\GC17A\Data\082a016, A



Total Extractable Hydrocarbons Lab #: 275217 2844 Mountain Blvd, Oakland Location: EPA 3550B Client: SOMA Environmental Engineering Inc. Prep: Project#: 5082 Analysis: EPA 8015B Matrix: Soil Batch#: 233241 03/17/16 Units: mg/Kg Received: Basis: 03/18/16 as received Prepared: Diln Fac: 1.000 Analyzed: 03/21/16

Field ID: DPT-6 @16 Lab ID: 275217-001 Type: SAMPLE Sampled: 03/16/16

 Analyte
 Result
 RL

 Diesel C10-C24
 ND
 1.0

Surrogate %REC Limits
o-Terphenyl 122 59-140

Field ID: DPT-6 @44 Lab ID: 275217-002 Type: SAMPLE Sampled: 03/16/16

AnalyteResultRLDiesel C10-C245.5 Y1.0

Surrogate %REC Limits
o-Terphenyl 125 59-140

Field ID: DPT-7 @20 Lab ID: 275217-003 Type: SAMPLE Sampled: 03/14/16

 Analyte
 Result
 RL

 Diesel C10-C24
 6.3 Y
 1.0

Surrogate %REC Limits
o-Terphenyl 112 59-140

Field ID: DPT-7 @48 Lab ID: 275217-004 Type: SAMPLE Sampled: 03/14/16

Type: SAMPLE Sampled: 03/14/16

 Analyte
 Result
 RL

 Diesel C10-C24
 1.7 Y
 1.0

Surrogate %REC Limits o-Terphenyl 109 59-140

Field ID: DPT-8 @24 Lab ID: 275217-005 Type: SAMPLE Sampled: 03/15/16

AnalyteResultRLDiesel C10-C24ND1.0

Surrogate %REC Limits
o-Terphenyl 114 59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons 2844 Mountain Blvd, Oakland Lab #: Location: Client: SOMA Environmental Engineering Inc. EPA 3550B Prep: Project#: 5082 EPA 8015B Analysis: 233241 Matrix: Soil Batch#: 03/17/16 Units: mg/Kg Received: Basis: as received Prepared: 03/18/16 Diln Fac: 1.000 03/21/16 Analyzed:

Field ID: DPT-8 @36 Lab ID: 275217-006 Type: SAMPLE Sampled: 03/15/16

 Analyte
 Result
 RL

 Diesel C10-C24
 ND
 1.0

Surrogate %REC Limits
o-Terphenyl 102 59-140

Field ID: DPT-8 @45 Lab ID: 275217-007 Type: SAMPLE Sampled: 03/15/16

 Analyte
 Result
 RL

 Diesel C10-C24
 ND
 1.0

Surrogate %REC Limits
o-Terphenyl 114 59-140

Field ID: DPT-9 @24 Lab ID: 275217-008 Type: SAMPLE Sampled: 03/15/16

 Analyte
 Result
 RL

 Diesel C10-C24
 2.4 Y
 1.0

Surrogate %REC Limits
o-Terphenyl 103 59-140

Field ID: DPT-9 @48 Lab ID: 275217-009 Type: SAMPLE Sampled: 03/15/16

Analyte Result RL

Analyte Result RL
Diesel C10-C24 ND 1.0

Surrogate %REC Limits o-Terphenyl 91 59-140

Type: BLANK Lab ID: QC828063

 Analyte
 Result
 RL

 Diesel C10-C24
 ND
 1.0

Surrogate %REC Limits o-Terphenyl 129 59-140

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Total Extractable Hydrocarbons					
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland		
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 3550B		
Project#:	5082	Analysis:	EPA 8015B		
Type:	LCS	Diln Fac:	1.000		
Lab ID:	QC828064	Batch#:	233241		
Matrix:	Soil	Prepared:	03/18/16		
Units:	mg/Kg	Analyzed:	03/21/16		

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	50.10	59.20	118	58-137

Surrogate	%REC	Limits
o-Terphenyl	138	59-140

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Total Extractable Hydrocarbons					
Lab #: 275217	Location:	2844 Mountain Blvd, Oakland			
Client: SOMA Environmental Engineering Inc.	Prep:	EPA 3550B			
Project#: 5082	Analysis:	EPA 8015B			
Field ID: DPT-8 @24	Batch#:	233241			
MSS Lab ID: 275217-005	Sampled:	03/15/16			
Matrix: Soil	Received:	03/17/16			
Units: mg/Kg	Prepared:	03/18/16			
Basis: as received	Analyzed:	03/21/16			
Diln Fac: 1.000					

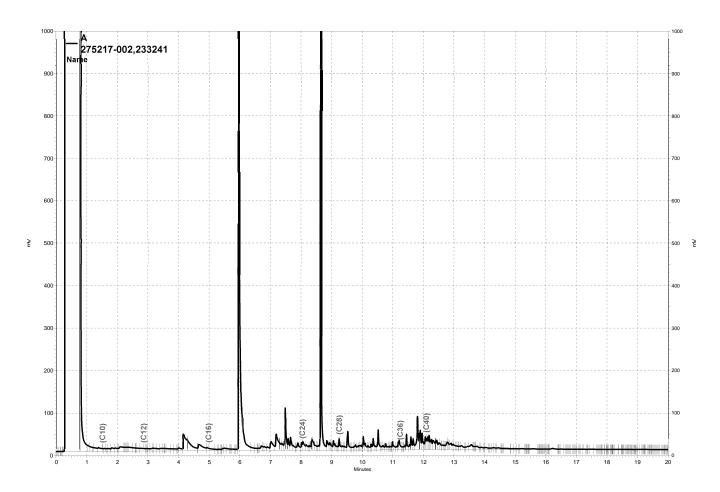
Type: MS Lab ID: QC828065

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	0.4319	50.13	50.48	100	46-154

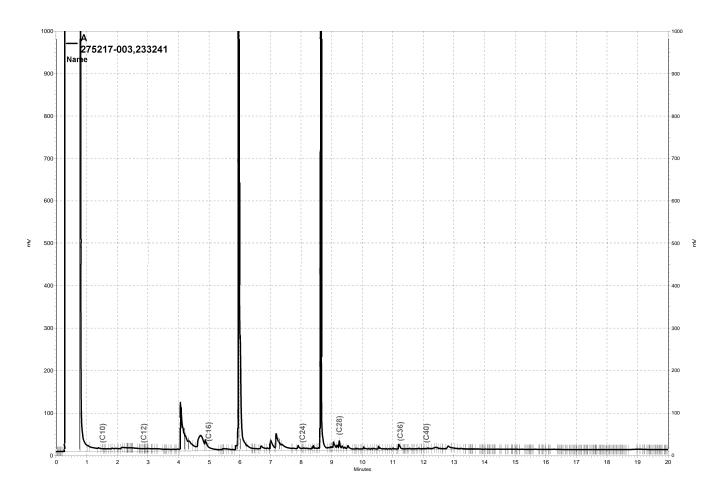
Type: MSD Lab ID: QC828066

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.23	50.30	99	46-154	1	50

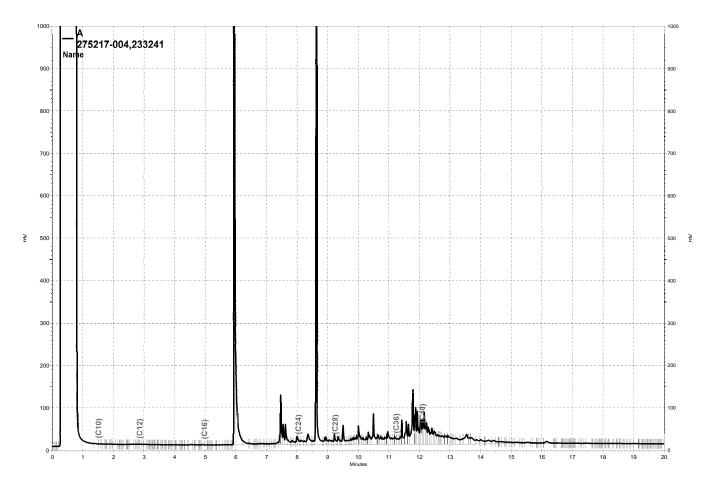
Surrogate	%REC	Limits
o-Terphenyl	125	59-140



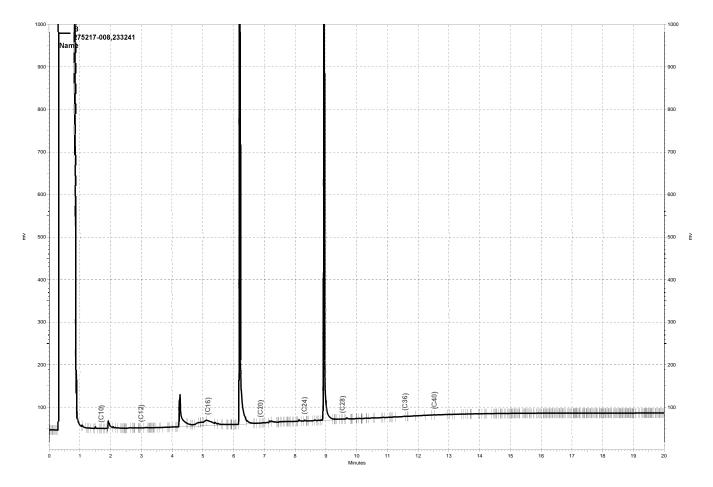
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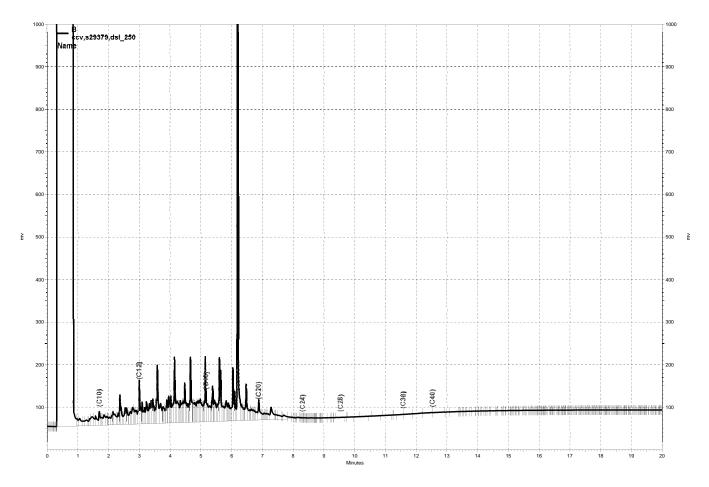
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\Lims\gdrive\ezchrom\Projects\GC15B\Data\081b005, B



\Lims\gdrive\ezchrom\Projects\GC15B\Data\081b003, B



Purgeable Organics by GC/MS						
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B			
Project#:	5082	Analysis:	EPA 8260B			
Field ID:	DPT-6 A	Units:	ug/L			
Lab ID:	275217-010	Sampled:	03/16/16			
Matrix:	Water	Received:	03/17/16			

Analyte	Result	RL	Diln Fac	Batch# Analyzed
Gasoline C7-C12	ND	100	2.000	233260 03/21/16
tert-Butyl Alcohol (TBA)	140	20	2.000	233260 03/21/16
Isopropyl Ether (DIPE)	ND	1.0	2.000	233260 03/21/16
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	2.000	233260 03/21/16
Methyl tert-Amyl Ether (TAME)	27	1.0	2.000	233260 03/21/16
Ethanol	ND	10,000	10.00	233325 03/22/16
MTBE	770	5.0	10.00	233325 03/22/16
1,2-Dichloroethane	ND	1.0	2.000	233260 03/21/16
Benzene	ND	1.0	2.000	233260 03/21/16
Toluene	ND	1.0	2.000	233260 03/21/16
1,2-Dibromoethane	ND	1.0	2.000	233260 03/21/16
Ethylbenzene	ND	1.0	2.000	233260 03/21/16
m,p-Xylenes	ND	1.0	2.000	233260 03/21/16
o-Xylene	ND	1.0	2.000	233260 03/21/16
Naphthalene	ND	4.0	2.000	233260 03/21/16

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed
Dibromofluoromethane	94	80-128	2.000	233260 03/21/16
1,2-Dichloroethane-d4	113	75-139	2.000	233260 03/21/16
Toluene-d8	100	80-120	2.000	233260 03/21/16
Bromofluorobenzene	100	80-120	2.000	233260 03/21/16

ND= Not Detected
RL= Reporting Limit

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Purgeable Organics by GC/MS						
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland		
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B		
Project#:	5082		Analysis:	EPA 8260B		
Field ID:	DPT-6 B		Diln Fac:	1.000		
Lab ID:	275217-011		Sampled:	03/16/16		
Matrix:	Water		Received:	03/17/16		
Units:	ug/L					

Analyte	Result	RL	Batch#	Analyzed
Gasoline C7-C12	ND	50	233260	03/21/16
tert-Butyl Alcohol (TBA)	ND	10	233325	03/22/16
Isopropyl Ether (DIPE)	ND	0.50	233325	03/22/16
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	233325	03/22/16
Methyl tert-Amyl Ether (TAME)	ND	0.50	233325	03/22/16
Ethanol	ND	1,000	233325	03/22/16
MTBE	7.7	0.50	233325	03/22/16
1,2-Dichloroethane	ND	0.50	233325	03/22/16
Benzene	ND	0.50	233325	03/22/16
Toluene	ND	0.50	233325	03/22/16
1,2-Dibromoethane	ND	0.50	233325	03/22/16
Ethylbenzene	ND	0.50	233325	03/22/16
m,p-Xylenes	ND	0.50	233325	03/22/16
o-Xylene	ND	0.50	233325	03/22/16
Naphthalene	ND	2.0	233325	03/22/16

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	107	80-128	233325	03/22/16
1,2-Dichloroethane-d4	109	75-139	233325	03/22/16
Toluene-d8	103	80-120	233325	03/22/16
Bromofluorobenzene	106	80-120	233325	03/22/16

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Purgeable Organics by GC/MS						
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland		
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B		
Project#:	5082		Analysis:	EPA 8260B		
Field ID:	DPT-7 A		Units:	ug/L		
Lab ID:	275217-012		Sampled:	03/14/16		
Matrix:	Water		Received:	03/17/16		

Analyte	Result	RL	Diln Fac	Batch# Analyzed
Gasoline C7-C12	ND	1,000	20.00	233260 03/21/16
tert-Butyl Alcohol (TBA)	40,000	1,000	100.0	233325 03/22/16
Isopropyl Ether (DIPE)	ND	10	20.00	233260 03/21/16
Ethyl tert-Butyl Ether (ETBE)	ND	10	20.00	233260 03/21/16
Methyl tert-Amyl Ether (TAME)	730	10	20.00	233260 03/21/16
Ethanol	ND	100,000	100.0	233325 03/22/16
MTBE	5,900	100	200.0	233378 03/23/16
1,2-Dichloroethane	ND	10	20.00	233260 03/21/16
Benzene	ND	10	20.00	233260 03/21/16
Toluene	ND	10	20.00	233260 03/21/16
1,2-Dibromoethane	ND	10	20.00	233260 03/21/16
Ethylbenzene	ND	10	20.00	233260 03/21/16
m,p-Xylenes	ND	10	20.00	233260 03/21/16
o-Xylene	ND	10	20.00	233260 03/21/16
Naphthalene	ND	40	20.00	233260 03/21/16

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed
Dibromofluoromethane	95	80-128	20.00	233260 03/21/16
1,2-Dichloroethane-d4	115	75-139	20.00	233260 03/21/16
Toluene-d8	103	80-120	20.00	233260 03/21/16
Bromofluorobenzene	99	80-120	20.00	233260 03/21/16

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Purgeable Organics by GC/MS						
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B			
Project#:	5082	Analysis:	EPA 8260B			
Field ID:	DPT-7 B	Units:	ug/L			
Lab ID:	275217-013	Sampled:	03/14/16			
Matrix:	Water	Received:	03/17/16			

Analyte	Result	RL	Diln Fac	Batch# Analyzed
Gasoline C7-C12	ND	130	2.500	233260 03/21/16
tert-Butyl Alcohol (TBA)	310	100	10.00	233325 03/22/16
Isopropyl Ether (DIPE)	ND	1.3	2.500	233260 03/21/16
Ethyl tert-Butyl Ether (ETBE)	ND	1.3	2.500	233260 03/21/16
Methyl tert-Amyl Ether (TAME)	56	1.3	2.500	233260 03/21/16
Ethanol	ND	10,000	10.00	233325 03/22/16
MTBE	780	5.0	10.00	233325 03/22/16
1,2-Dichloroethane	ND	1.3	2.500	233260 03/21/16
Benzene	ND	1.3	2.500	233260 03/21/16
Toluene	ND	1.3	2.500	233260 03/21/16
1,2-Dibromoethane	ND	1.3	2.500	233260 03/21/16
Ethylbenzene	ND	1.3	2.500	233260 03/21/16
m,p-Xylenes	ND	1.3	2.500	233260 03/21/16
o-Xylene	ND	1.3	2.500	233260 03/21/16
Naphthalene	ND	5.0	2.500	233260 03/21/16

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed
Dibromofluoromethane	93	80-128	2.500	233260 03/21/16
1,2-Dichloroethane-d4	113	75-139	2.500	233260 03/21/16
Toluene-d8	101	80-120	2.500	233260 03/21/16
Bromofluorobenzene	105	80-120	2.500	233260 03/21/16

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Purgeable Organics by GC/MS						
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B			
Project#:	5082	Analysis:	EPA 8260B			
Field ID:	DPT-8 A	Units:	ug/L			
Lab ID:	275217-014	Sampled:	03/15/16			
Matrix:	Water	Received:	03/17/16			

Analyte	Result	RL	Diln Fac	Batch# Analyzed
Gasoline C7-C12	ND	3,100	62.50	233260 03/21/16
tert-Butyl Alcohol (TBA)	4,500	630	62.50	233260 03/21/16
Isopropyl Ether (DIPE)	ND	31	62.50	233260 03/21/16
Ethyl tert-Butyl Ether (ETBE)	ND	31	62.50	233260 03/21/16
Methyl tert-Amyl Ether (TAME)	2,200	31	62.50	233260 03/21/16
Ethanol	ND	330,000	333.3	233325 03/22/16
MTBE	30,000	170	333.3	233325 03/22/16
1,2-Dichloroethane	ND	31	62.50	233260 03/21/16
Benzene	ND	31	62.50	233260 03/21/16
Toluene	ND	31	62.50	233260 03/21/16
1,2-Dibromoethane	ND	31	62.50	233260 03/21/16
Ethylbenzene	ND	31	62.50	233260 03/21/16
m,p-Xylenes	70	31	62.50	233260 03/21/16
o-Xylene	ND	31	62.50	233260 03/21/16
Naphthalene	ND	130	62.50	233260 03/21/16

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed
Dibromofluoromethane	94	80-128	62.50	233260 03/21/16
1,2-Dichloroethane-d4	112	75-139	62.50	233260 03/21/16
Toluene-d8	102	80-120	62.50	233260 03/21/16
Bromofluorobenzene	104	80-120	62.50	233260 03/21/16

ND= Not Detected
RL= Reporting Limit

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Purgeable Organics by GC/MS						
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B			
Project#:	5082	Analysis:	EPA 8260B			
Field ID:	DPT-8 B	Units:	ug/L			
Lab ID:	275217-015	Sampled:	03/15/16			
Matrix:	Water	Received:	03/17/16			

Analyte	Result	RL	Diln Fac	Batch# Analyzed
Gasoline C7-C12	ND	50	1.000	233260 03/21/16
tert-Butyl Alcohol (TBA)	48	10	1.000	233260 03/21/16
Isopropyl Ether (DIPE)	ND	0.50	1.000	233260 03/21/16
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	1.000	233260 03/21/16
Methyl tert-Amyl Ether (TAME)	27	0.50	1.000	233260 03/21/16
Ethanol	ND	5,000	5.000	233325 03/22/16
MTBE	310	2.5	5.000	233325 03/22/16
1,2-Dichloroethane	ND	0.50	1.000	233260 03/21/16
Benzene	3.5	0.50	1.000	233260 03/21/16
Toluene	0.50	0.50	1.000	233260 03/21/16
1,2-Dibromoethane	ND	0.50	1.000	233260 03/21/16
Ethylbenzene	1.9	0.50	1.000	233260 03/21/16
m,p-Xylenes	2.6	0.50	1.000	233260 03/21/16
o-Xylene	0.81	0.50	1.000	233260 03/21/16
Naphthalene	ND	2.0	1.000	233260 03/21/16

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed
Dibromofluoromethane	94	80-128	1.000	233260 03/21/16
1,2-Dichloroethane-d4	111	75-139	1.000	233260 03/21/16
Toluene-d8	101	80-120	1.000	233260 03/21/16
Bromofluorobenzene	104	80-120	1.000	233260 03/21/16

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Purgeable Organics by GC/MS						
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland		
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B		
Project#:	5082		Analysis:	EPA 8260B		
Field ID:	DPT-9 B		Diln Fac:	1.000		
Lab ID:	275217-016		Sampled:	03/15/16		
Matrix:	Water		Received:	03/17/16		
Units:	ug/L					

Analyte	Result	RL	Batch#	Analyzed
Gasoline C7-C12	ND	50	233260	03/21/16
tert-Butyl Alcohol (TBA)	ND	10	233325	03/22/16
Isopropyl Ether (DIPE)	ND	0.50	233325	03/22/16
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	233325	03/22/16
Methyl tert-Amyl Ether (TAME)	ND	0.50	233325	03/22/16
Ethanol	ND	1,000	233325	03/22/16
MTBE	ND	0.50	233325	03/22/16
1,2-Dichloroethane	ND	0.50	233325	03/22/16
Benzene	ND	0.50	233325	03/22/16
Toluene	ND	0.50	233325	03/22/16
1,2-Dibromoethane	ND	0.50	233325	03/22/16
Ethylbenzene	ND	0.50	233325	03/22/16
m,p-Xylenes	ND	0.50	233325	03/22/16
o-Xylene	ND	0.50	233325	03/22/16
Naphthalene	ND	2.0	233325	03/22/16

Surrogate	%REC	Limits	Batch#	Analyzed
Dibromofluoromethane	106	80-128	233325	03/22/16
1,2-Dichloroethane-d4	109	75-139	233325	03/22/16
Toluene-d8	103	80-120	233325	03/22/16
Bromofluorobenzene	105	80-120	233325	03/22/16

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Purgeable Organics by GC/MS						
Lab #: Client: Project#:	275217 SOMA Environmental 5082	Engineering Inc.	Location: Prep: Analysis:	2844 Mountain Blvd, Oakland EPA 5030B EPA 8260B		
Matrix: Units: Diln Fac:	Water ug/L 1.000		Batch#: Analyzed:	233260 03/21/16		

Type: BS Lab ID: QC828137

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	52.33	84	32-155
Isopropyl Ether (DIPE)	12.50	11.08	89	57-128
Ethyl tert-Butyl Ether (ETBE)	12.50	10.48	84	62-120
Methyl tert-Amyl Ether (TAME)	12.50	12.28	98	69-120
MTBE	12.50	9.905	79	65-120
1,2-Dichloroethane	12.50	13.64	109	74-133
Benzene	12.50	12.89	103	80-123
Toluene	12.50	12.85	103	80-121
1,2-Dibromoethane	12.50	11.19	90	80-120
Ethylbenzene	12.50	13.35	107	80-123
m,p-Xylenes	25.00	25.05	100	80-126
o-Xylene	12.50	12.96	104	80-126

Surrogate	%REC	Limits
Dibromofluoromethane	94	80-128
1,2-Dichloroethane-d4	109	75-139
Toluene-d8	98	80-120
Bromofluorobenzene	97	80-120

Type: BSD Lab ID: QC828138

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	51.05	82	32-155	2	33
Isopropyl Ether (DIPE)	12.50	10.68	85	57-128	4	20
Ethyl tert-Butyl Ether (ETBE)	12.50	10.31	82	62-120	2	20
Methyl tert-Amyl Ether (TAME)	12.50	11.92	95	69-120	3	20
MTBE	12.50	9.600	77	65-120	3	22
1,2-Dichloroethane	12.50	13.41	107	74-133	2	20
Benzene	12.50	12.93	103	80-123	0	20
Toluene	12.50	13.49	108	80-121	5	20
1,2-Dibromoethane	12.50	12.47	100	80-120	11	20
Ethylbenzene	12.50	13.73	110	80-123	3	21
m,p-Xylenes	25.00	27.13	109	80-126	8	21
o-Xylene	12.50	13.12	105	80-126	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-128
1,2-Dichloroethane-d4	108	75-139
Toluene-d8	103	80-120
Bromofluorobenzene	93	80-120



Purgeable Organics by GC/MS							
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland				
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B				
Project#:	5082	Analysis:	EPA 8260B				
Matrix:	Water	Batch#:	233260				
Units:	ug/L	Analyzed:	03/21/16				
Diln Fac:	1.000						

Type: BS Lab ID: QC828139

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,097	110	76-120

Surrogate %	%REC	Limits
Dibromofluoromethane 92	2	80-128
1,2-Dichloroethane-d4 10	02	75-139
Toluene-d8 10	01	80-120
Bromofluorobenzene 10	02	80-120

Type: BSD Lab ID: QC828145

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	1,069	107	76-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-128
1,2-Dichloroethane-d4	107	75-139
Toluene-d8	105	80-120
Bromofluorobenzene	100	80-120



Purgeable Organics by GC/MS								
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland				
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B				
Project#:	5082		Analysis:	EPA 8260B				
Type:	BLANK		Diln Fac:	1.000				
Lab ID:	QC828146		Batch#:	233260				
Matrix:	Water		Analyzed:	03/21/16				
Units:	ug/L							

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
Ethanol	ND	1,000	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	
Naphthalene	ND	2.0	

Surrogate	%REC	Limits
Dibromofluoromethane 91	1	80-128
1,2-Dichloroethane-d4	10	75-139
Toluene-d8 98	8	80-120
Bromofluorobenzene 10	.02	80-120

ND= Not Detected RL= Reporting Limit Page 1 of 1



Purgeable Organics by GC/MS							
Lab #: Client: Project#:	275217 SOMA Environmental 5082	Engineering Inc.	Location: Prep: Analysis:	2844 Mountain Blvd, Oakland EPA 5030B EPA 8260B			
Matrix: Units: Diln Fac:	Water ug/L 1.000		Batch#: Analyzed:	233325 03/22/16			

Type: BS Lab ID: QC828416

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	62.72	100	32-155
Isopropyl Ether (DIPE)	12.50	12.42	99	57-128
Ethyl tert-Butyl Ether (ETBE)	12.50	11.51	92	62-120
Methyl tert-Amyl Ether (TAME)	12.50	11.10	89	69-120
MTBE	12.50	10.64	85	65-120
1,2-Dichloroethane	12.50	12.30	98	74-133
Benzene	12.50	12.09	97	80-123
Toluene	12.50	12.09	97	80-121
1,2-Dibromoethane	12.50	10.94	88	80-120
Ethylbenzene	12.50	12.13	97	80-123
m,p-Xylenes	25.00	23.62	94	80-126
o-Xylene	12.50	11.66	93	80-126

Surrogate	%REC	Limits	
Dibromofluoromethane	104	80-128	
1,2-Dichloroethane-d4	108	75-139	
Toluene-d8	101	80-120	
Bromofluorobenzene	100	80-120	

Type: BSD Lab ID: QC828417

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	70.34	113	32-155	11	33
Isopropyl Ether (DIPE)	12.50	12.02	96	57-128	3	20
Ethyl tert-Butyl Ether (ETBE)	12.50	11.22	90	62-120	3	20
Methyl tert-Amyl Ether (TAME)	12.50	10.73	86	69-120	3	20
MTBE	12.50	10.68	85	65-120	0	22
1,2-Dichloroethane	12.50	11.99	96	74-133	3	20
Benzene	12.50	11.65	93	80-123	4	20
Toluene	12.50	11.69	94	80-121	3	20
1,2-Dibromoethane	12.50	11.07	89	80-120	1	20
Ethylbenzene	12.50	11.59	93	80-123	5	21
m,p-Xylenes	25.00	22.72	91	80-126	4	21
o-Xylene	12.50	11.24	90	80-126	4	20

Surrogate	%REC	Limits	
Dibromofluoromethane	104	80-128	
1,2-Dichloroethane-d4	104	75-139	
Toluene-d8	101	80-120	
Bromofluorobenzene	101	80-120	



	F	Purgeable Org	anics by GC/MS	
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland
Client:	SOMA Environmental En	ngineering Inc.	Prep:	EPA 5030B
Project#:	5082		Analysis:	EPA 8260B
Type:	BLANK		Diln Fac:	1.000
Lab ID:	QC828418		Batch#:	233325
Matrix:	Water		Analyzed:	03/22/16
Units:	ug/L			

Analyte	Result	RL	
Gasoline C7-C12	NA		
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
Ethanol	ND	1,000	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	
Naphthalene	ND	2.0	

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-128
1,2-Dichloroethane-d4	109	75-139
Toluene-d8	104	80-120
Bromofluorobenzene	108	80-120

NA= Not Analyzed ND= Not Detected

RL= Reporting Limit

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		Purgeable On	rganics by GC/MS	
Lab #: Client: Project#:	275217 SOMA Environmental 5082	Engineering Inc	Location: . Prep: Analysis:	2844 Mountain Blvd, Oakland EPA 5030B EPA 8260B
Matrix: Units: Diln Fac:	Water ug/L 1.000		Batch#: Analyzed:	233378 03/23/16

Type: BS Lab ID: QC828626

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	62.50	48.83	78	32-155
Isopropyl Ether (DIPE)	12.50	11.36	91	57-128
Ethyl tert-Butyl Ether (ETBE)	12.50	11.00	88	62-120
Methyl tert-Amyl Ether (TAME)	12.50	11.21	90	69-120
MTBE	12.50	9.858	79	65-120
1,2-Dichloroethane	12.50	11.02	88	74-133
Benzene	12.50	12.87	103	80-123
Toluene	12.50	13.16	105	80-121
1,2-Dibromoethane	12.50	11.89	95	80-120
Ethylbenzene	12.50	13.05	104	80-123
m,p-Xylenes	25.00	26.37	105	80-126
o-Xylene	12.50	13.30	106	80-126

Surrogate %	%REC	Limits
Dibromofluoromethane 96	6	80-128
1,2-Dichloroethane-d4 88	8	75-139
Toluene-d8 98	8	80-120
Bromofluorobenzene 98	8	80-120

Type: BSD Lab ID: QC828627

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	62.50	51.65	83	32-155	6	33
Isopropyl Ether (DIPE)	12.50	10.97	88	57-128	4	20
Ethyl tert-Butyl Ether (ETBE)	12.50	10.85	87	62-120	1	20
Methyl tert-Amyl Ether (TAME)	12.50	11.23	90	69-120	0	20
MTBE	12.50	9.940	80	65-120	1	22
1,2-Dichloroethane	12.50	10.40	83	74-133	6	20
Benzene	12.50	12.56	100	80-123	2	20
Toluene	12.50	12.31	98	80-121	7	20
1,2-Dibromoethane	12.50	12.06	97	80-120	1	20
Ethylbenzene	12.50	12.44	100	80-123	5	21
m,p-Xylenes	25.00	24.54	98	80-126	7	21
o-Xylene	12.50	12.68	101	80-126	5	20

Surrogate	%REC	Limits	
Dibromofluoromethane	95	80-128	
1,2-Dichloroethane-d4	86	75-139	
Toluene-d8	97	80-120	
Bromofluorobenzene	95	80-120	



	Pui	rgeable Org	anics by GC/MS	
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland
Client:	SOMA Environmental Engi	neering Inc.	Prep:	EPA 5030B
Project#:	5082		Analysis:	EPA 8260B
Type:	BLANK		Diln Fac:	1.000
Lab ID:	QC828628		Batch#:	233378
Matrix:	Water		Analyzed:	03/23/16
Units:	ug/L			

Analyte	Result	RL	
Gasoline C7-C12	NA		
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
Ethanol	ND	1,000	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	
Naphthalene	ND	2.0	

Surrogate	%REC	Limits
Dibromofluoromethane 9	91	80-128
1,2-Dichloroethane-d4 8	36	75-139
Toluene-d8 9	97	80-120
Bromofluorobenzene 1	L00	80-120

NA= Not Analyzed ND= Not Detected

RL= Reporting Limit

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BTXE & Oxygenates							
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B			
Project#:	5082		Analysis:	EPA 8260B			
Field ID:	DPT-6 @16		Diln Fac:	0.9881			
Lab ID:	275217-001		Batch#:	233253			
Matrix:	Soil		Sampled:	03/16/16			
Units:	ug/Kg		Received:	03/17/16			
Basis:	as received		Analyzed:	03/20/16			

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	99	
MTBE	40	4.9	
Isopropyl Ether (DIPE)	ND	4.9	
Ethyl tert-Butyl Ether (ETBE)	ND	4.9	
1,2-Dichloroethane	ND	4.9	
Benzene	ND	4.9	
Methyl tert-Amyl Ether (TAME)	ND	4.9	
Ethanol	ND	990	
Toluene	ND	4.9	
1,2-Dibromoethane	ND	4.9	
Ethylbenzene	ND	4.9	
m,p-Xylenes	ND	4.9	
o-Xylene	ND	4.9	
Naphthalene	ND	4.9	

Surrogate	%REC	Limits	
Dibromofluoromethane	96	78-134	
1,2-Dichloroethane-d4	92	80-138	
Toluene-d8	93	80-120	
Bromofluorobenzene	101	78-123	

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BTXE & Oxygenates						
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B			
Project#:	5082	Analysis:	EPA 8260B			
Field ID:	DPT-6 @44	Diln Fac:	0.9766			
Lab ID:	275217-002	Batch#:	233253			
Matrix:	Soil	Sampled:	03/16/16			
Units:	ug/Kg	Received:	03/17/16			
Basis:	as received	Analyzed:	03/20/16			

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	98	
MTBE	ND	4.9	
Isopropyl Ether (DIPE)	ND	4.9	
Ethyl tert-Butyl Ether (ETBE)	ND	4.9	
1,2-Dichloroethane	ND	4.9	
Benzene	ND	4.9	
Methyl tert-Amyl Ether (TAME)	ND	4.9	
Ethanol	ND	980	
Toluene	ND	4.9	
1,2-Dibromoethane	ND	4.9	
Ethylbenzene	ND	4.9	
m,p-Xylenes	ND	4.9	
o-Xylene	ND	4.9	
Naphthalene	ND	4.9	

Surrogate	%REC	Limits	
Dibromofluoromethane	98	78-134	
1,2-Dichloroethane-d4	95	80-138	
Toluene-d8	94	80-120	
Bromofluorobenzene	102	78-123	

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BTXE & Oxygenates						
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B			
Project#:	5082	Analysis:	EPA 8260B			
Field ID:	DPT-7 @20	Basis:	as received			
Lab ID:	275217-003	Sampled:	03/14/16			
Matrix:	Soil	Received:	03/17/16			
Units:	ug/Kg					

Analyte	Result	RL	Diln Fac	Batch# Analyzed
tert-Butyl Alcohol (TBA)	6,000	5,000	50.00	233261 03/21/16
MTBE	3,300	250	50.00	233261 03/21/16
Isopropyl Ether (DIPE)	ND	4.7	0.9452	233253 03/20/16
Ethyl tert-Butyl Ether (ETBE)	ND	4.7	0.9452	233253 03/20/16
1,2-Dichloroethane	ND	4.7	0.9452	233253 03/20/16
Benzene	ND	4.7	0.9452	233253 03/20/16
Methyl tert-Amyl Ether (TAME)	290	250	50.00	233261 03/21/16
Ethanol	ND	950	0.9452	233253 03/20/16
Toluene	ND	4.7	0.9452	233253 03/20/16
1,2-Dibromoethane	ND	4.7	0.9452	233253 03/20/16
Ethylbenzene	ND	4.7	0.9452	233253 03/20/16
m,p-Xylenes	ND	4.7	0.9452	233253 03/20/16
o-Xylene	ND	4.7	0.9452	233253 03/20/16
Naphthalene	ND	4.7	0.9452	233253 03/20/16

Surrogate	%REC	Limits	Diln Fac	Batch# Analyzed
Dibromofluoromethane	95	78-134	0.9452	233253 03/20/16
1,2-Dichloroethane-d4	106	80-138	0.9452	233253 03/20/16
Toluene-d8	93	80-120	0.9452	233253 03/20/16
Bromofluorobenzene	102	78-123	0.9452	233253 03/20/16
Trifluorotoluene (MeOH)	103	52-147	50.00	233261 03/21/16

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BTXE & Oxygenates							
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B			
Project#:	5082		Analysis:	EPA 8260B			
Field ID:	DPT-7 @48		Diln Fac:	0.9901			
Lab ID:	275217-004		Batch#:	233253			
Matrix:	Soil		Sampled:	03/14/16			
Units:	ug/Kg		Received:	03/17/16			
Basis:	as received		Analyzed:	03/20/16			

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	99	
MTBE	ND	5.0	
Isopropyl Ether (DIPE)	ND	5.0	
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Methyl tert-Amyl Ether (TAME)	ND	5.0	
Ethanol	ND	990	
Toluene	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Naphthalene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	99	78-134	
1,2-Dichloroethane-d4	94	80-138	
Toluene-d8	93	80-120	
Bromofluorobenzene	104	78-123	



BTXE & Oxygenates							
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental En	ngineering Inc.	Prep:	EPA 5030B			
Project#:	5082		Analysis:	EPA 8260B			
Field ID:	DPT-8 @24		Basis:	as received			
Lab ID:	275217-005		Sampled:	03/15/16			
Matrix:	Soil		Received:	03/17/16			
Units:	ug/Kg		Analyzed:	03/21/16			

Analyte	Result	RL	Diln Fac	Batch#
tert-Butyl Alcohol (TBA)	ND	960	9.615	233261
MTBE	500	48	9.615	233261
Isopropyl Ether (DIPE)	ND	4.6	0.9225	233253
Ethyl tert-Butyl Ether (ETBE)	ND	4.6	0.9225	233253
1,2-Dichloroethane	ND	4.6	0.9225	233253
Benzene	ND	4.6	0.9225	233253
Methyl tert-Amyl Ether (TAME)	45	4.6	0.9225	233253
Ethanol	ND	920	0.9225	233253
Toluene	ND	4.6	0.9225	233253
1,2-Dibromoethane	ND	4.6	0.9225	233253
Ethylbenzene	ND	4.6	0.9225	233253
m,p-Xylenes	ND	4.6	0.9225	233253
o-Xylene	ND	4.6	0.9225	233253
Naphthalene	ND	4.6	0.9225	233253

Surrogate	%REC	Limits	Diln Fac	Batch#
Dibromofluoromethane	97	78-134	0.9225	233253
1,2-Dichloroethane-d4	94	80-138	0.9225	233253
Toluene-d8	92	80-120	0.9225	233253
Bromofluorobenzene	101	78-123	0.9225	233253

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BTXE & Oxygenates							
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland				
Client:	SOMA Environmental Engineering Inc	. Prep:	EPA 5030B				
Project#:	5082	Analysis:	EPA 8260B				
Field ID:	DPT-8 @36	Diln Fac:	0.9615				
Lab ID:	275217-006	Batch#:	233261				
Matrix:	Soil	Sampled:	03/15/16				
Units:	ug/Kg	Received:	03/17/16				
Basis:	as received	Analyzed:	03/21/16				

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	96	
MTBE	ND	4.8	
Isopropyl Ether (DIPE)	ND	4.8	
Ethyl tert-Butyl Ether (ETBE)	ND	4.8	
1,2-Dichloroethane	ND	4.8	
Benzene	ND	4.8	
Methyl tert-Amyl Ether (TAME)	ND	4.8	
Ethanol	ND	960	
Toluene	ND	4.8	
1,2-Dibromoethane	ND	4.8	
Ethylbenzene	ND	4.8	
m,p-Xylenes	ND	4.8	
o-Xylene	ND	4.8	
Naphthalene	ND	4.8	

Surrogate	%REC	Limits	
Dibromofluoromethane	98	78-134	
1,2-Dichloroethane-d4	94	80-138	
Toluene-d8	93	80-120	
Bromofluorobenzene	103	78-123	

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	BTXE & Oxygenates							
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland				
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B				
Project#:	5082		Analysis:	EPA 8260B				
Field ID:	DPT-8 @45		Diln Fac:	0.9058				
Lab ID:	275217-007		Batch#:	233253				
Matrix:	Soil		Sampled:	03/15/16				
Units:	ug/Kg		Received:	03/17/16				
Basis:	as received		Analyzed:	03/21/16				

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	91
MTBE	8.2	4.5
Isopropyl Ether (DIPE)	ND	4.5
Ethyl tert-Butyl Ether (ETBE)	ND	4.5
1,2-Dichloroethane	ND	4.5
Benzene	ND	4.5
Methyl tert-Amyl Ether (TAME)	ND	4.5
Ethanol	ND	910
Toluene	ND	4.5
1,2-Dibromoethane	ND	4.5
Ethylbenzene	ND	4.5
m,p-Xylenes	ND	4.5
o-Xylene	ND	4.5
Naphthalene	ND	4.5

Surrogate	%REC	Limits	
Dibromofluoromethane	99	78-134	
1,2-Dichloroethane-d4	94	80-138	
Toluene-d8	91	80-120	
Bromofluorobenzene	103	78-123	

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BTXE & Oxygenates								
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland				
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B				
Project#:	5082		Analysis:	EPA 8260B				
Field ID:	DPT-9 @24		Diln Fac:	0.9107				
Lab ID:	275217-008		Batch#:	233253				
Matrix:	Soil		Sampled:	03/15/16				
Units:	ug/Kg		Received:	03/17/16				
Basis:	as received		Analyzed:	03/21/16				

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	91	
MTBE	ND	4.6	
Isopropyl Ether (DIPE)	ND	4.6	
Ethyl tert-Butyl Ether (ETBE)	ND	4.6	
1,2-Dichloroethane	ND	4.6	
Benzene	ND	4.6	
Methyl tert-Amyl Ether (TAME)	ND	4.6	
Ethanol	ND	910	
Toluene	ND	4.6	
1,2-Dibromoethane	ND	4.6	
Ethylbenzene	ND	4.6	
m,p-Xylenes	ND	4.6	
o-Xylene	ND	4.6	
Naphthalene	ND	4.6	

Surrogate	%REC	Limits	
Dibromofluoromethane	98	78-134	
1,2-Dichloroethane-d4	95	80-138	
Toluene-d8	93	80-120	
Bromofluorobenzene	101	78-123	

ND= Not Detected RL= Reporting Limit Page 1 of 1

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BTXE & Oxygenates								
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland				
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B				
Project#:	5082		Analysis:	EPA 8260B				
Field ID:	DPT-9 @48		Diln Fac:	0.9381				
Lab ID:	275217-009		Batch#:	233253				
Matrix:	Soil		Sampled:	03/15/16				
Units:	ug/Kg		Received:	03/17/16				
Basis:	as received		Analyzed:	03/21/16				

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	94	
MTBE	ND	4.7	
Isopropyl Ether (DIPE)	ND	4.7	
Ethyl tert-Butyl Ether (ETBE)	ND	4.7	
1,2-Dichloroethane	ND	4.7	
Benzene	ND	4.7	
Methyl tert-Amyl Ether (TAME)	ND	4.7	
Ethanol	ND	940	
Toluene	ND	4.7	
1,2-Dibromoethane	ND	4.7	
Ethylbenzene	ND	4.7	
m,p-Xylenes	ND	4.7	
o-Xylene	ND	4.7	
Naphthalene	ND	4.7	

Surrogate	%REC	Limits
Dibromofluoromethane	100	78-134
1,2-Dichloroethane-d4	94	80-138
Toluene-d8	90	80-120
Bromofluorobenzene	100	78-123

ND= Not Detected RL= Reporting Limit Page 1 of 1

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14.0



BTXE & Oxygenates							
Lab #: Client: Project#:	275217 SOMA Environmental Engineering 5082	g Inc.	Location: Prep: Analysis:	2844 Mountain Blvd, Oakland EPA 5030B EPA 8260B			
Matrix: Units: Diln Fac:	Soil ug/Kg 1.000		Batch#: Analyzed:	233253 03/20/16			

Type: BS Lab ID: QC828103

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	94.59 b	76	49-131
MTBE	25.00	18.91	76	61-122
Isopropyl Ether (DIPE)	25.00	21.93	88	54-129
Ethyl tert-Butyl Ether (ETBE)	25.00	21.06	84	60-120
1,2-Dichloroethane	25.00	22.71	91	78-136
Benzene	25.00	23.53	94	80-123
Methyl tert-Amyl Ether (TAME)	25.00	21.70	87	70-120
Toluene	25.00	22.05	88	80-120
1,2-Dibromoethane	25.00	21.09	84	80-124
Ethylbenzene	25.00	23.33	93	80-122
m,p-Xylenes	50.00	46.58	93	80-127
o-Xylene	25.00	22.52	90	80-125

Surrogate	%REC	Limits
Dibromofluoromethane	94	78-134
1,2-Dichloroethane-d4	90	80-138
Toluene-d8	92	80-120
Bromofluorobenzene	92	78-123

Type: BSD Lab ID: QC828104

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	86.37 b	69	49-131	9	40
MTBE	25.00	18.28	73	61-122	3	26
Isopropyl Ether (DIPE)	25.00	21.38	86	54-129	3	24
Ethyl tert-Butyl Ether (ETBE)	25.00	20.62	82	60-120	2	24
1,2-Dichloroethane	25.00	22.15	89	78-136	3	21
Benzene	25.00	23.03	92	80-123	2	21
Methyl tert-Amyl Ether (TAME)	25.00	21.13	85	70-120	3	22
Toluene	25.00	22.05	88	80-120	0	20
1,2-Dibromoethane	25.00	21.20	85	80-124	1	21
Ethylbenzene	25.00	22.72	91	80-122	3	20
m,p-Xylenes	50.00	44.97	90	80-127	4	20
o-Xylene	25.00	22.03	88	80-125	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	92	78-134
1,2-Dichloroethane-d4	90	80-138
Toluene-d8	93	80-120
Bromofluorobenzene	93	78-123

b= See narrative
RPD= Relative Percent Difference
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BTXE & Oxygenates							
Lab #:	275217		Location:	2844 Mountain Blvd, Oakland			
Client:	SOMA Environmental Engineeri	ng Inc.	Prep:	EPA 5030B			
Project#:	5082		Analysis:	EPA 8260B			
Type:	BLANK		Diln Fac:	1.000			
Lab ID:	QC828105		Batch#:	233253			
Matrix:	Soil		Analyzed:	03/20/16			
Units:	ug/Kg						

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	100	
MTBE	ND	5.0	
Isopropyl Ether (DIPE)	ND	5.0	
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Methyl tert-Amyl Ether (TAME)	ND	5.0	
Ethanol	ND	1,000	
Toluene	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Naphthalene	ND	5.0	

Surrogate	%REC	Limits
Dibromofluoromethane	96	78-134
1,2-Dichloroethane-d4	91	80-138
Toluene-d8	92	80-120
Bromofluorobenzene	101	78-123

ND= Not Detected RL= Reporting Limit

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16.0



BTXE & Oxygenates								
Lab #: 2752	217		Location:	2844 Mountain Blvd, Oakland				
Client: SOM	A Environmental	Engineering Inc.	Prep:	EPA 5030B				
Project#: 5082	2	_	Analysis:	EPA 8260B				
Field ID:	DPT-7 @48		Batch#:	233253				
MSS Lab ID:	275217-004		Sampled:	03/14/16				
Matrix:	Soil		Received:	03/17/16				
Units:	ug/Kg		Analyzed:	03/21/16				
Basis:	as received							

Type: Lab ID: MS QC828106 Diln Fac: 0.9242

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<8.574	231.1	135.4 b	59	44-120
MTBE	<0.4792	46.21	28.01	61	49-120
Isopropyl Ether (DIPE)	<0.5596	46.21	32.84	71	46-120
Ethyl tert-Butyl Ether (ETBE)	<0.5635	46.21	31.09	67	48-120
1,2-Dichloroethane	<0.6183	46.21	33.09	72	55-124
Benzene	<0.6906	46.21	37.55	81	57-120
Methyl tert-Amyl Ether (TAME)	<0.4807	46.21	32.28	70	52-120
Toluene	<0.7564	46.21	34.46	75	51-120
1,2-Dibromoethane	<0.5080	46.21	29.41	64	51-120
Ethylbenzene	<0.7064	46.21	34.69	75	45-120
m,p-Xylenes	<1.365	92.42	68.37	74	45-123
o-Xylene	<0.5894	46.21	33.03	71	44-122

Surrogate	%REC	Limits
Dibromofluoromethane	96	78-134
1,2-Dichloroethane-d4	93	80-138
Toluene-d8	90	80-120
Bromofluorobenzene	90	78-123

Type: Lab ID: MSD QC828107 Diln Fac: 0.9452

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	236.3	183.6 b	78	44-120	28	46
MTBE	47.26	33.91	72	49-120	17	40
Isopropyl Ether (DIPE)	47.26	38.95	82	46-120	15	41
Ethyl tert-Butyl Ether (ETBE)	47.26	37.24	79	48-120	16	40
1,2-Dichloroethane	47.26	37.08	78	55-124	9	41
Benzene	47.26	40.59	86	57-120	6	44
Methyl tert-Amyl Ether (TAME)	47.26	39.88	84	52-120	19	36
Toluene	47.26	36.82	78	51-120	4	47
1,2-Dibromoethane	47.26	33.46	71	51-120	11	45
Ethylbenzene	47.26	37.53	79	45-120	6	55
m,p-Xylenes	94.52	73.56	78	45-123	5	53
o-Xylene	47.26	35.90	76	44-122	6	55

Surrogate	%REC	Limits
Dibromofluoromethane	93	78-134
1,2-Dichloroethane-d4	96	80-138
Toluene-d8	91	80-120
Bromofluorobenzene	88	78-123

b= See narrative RPD= Relative Percent Difference Page 1 of 1



	B.	XE & C	xygenates	
Lab #: Client: Project#:	275217 SOMA Environmental Engineeri 5082	ng Inc.	Location: Prep: Analysis:	2844 Mountain Blvd, Oakland EPA 5030B EPA 8260B
Matrix: Units: Diln Fac:	Soil ug/Kg 1.000		Batch#: Analyzed:	233261 03/21/16

Type: BS Lab ID: QC828140

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	88.84	71	49-131
MTBE	25.00	17.87	71	61-122
Isopropyl Ether (DIPE)	25.00	20.96	84	54-129
Ethyl tert-Butyl Ether (ETBE)	25.00	20.05	80	60-120
1,2-Dichloroethane	25.00	21.96	88	78-136
Benzene	25.00	23.92	96	80-123
Methyl tert-Amyl Ether (TAME)	25.00	21.07	84	70-120
Toluene	25.00	22.70	91	80-120
1,2-Dibromoethane	25.00	20.92	84	80-124
Ethylbenzene	25.00	23.87	95	80-122
m,p-Xylenes	50.00	48.32	97	80-127
o-Xylene	25.00	23.29	93	80-125

Surrogate	%REC	Limits	
Dibromofluoromethane	91	78-134	
1,2-Dichloroethane-d4	90	80-138	
Toluene-d8	92	80-120	
Bromofluorobenzene	90	78-123	

Type: BSD Lab ID: QC828141

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	97.85	78	49-131	10	40
MTBE	25.00	20.38	82	61-122	13	26
Isopropyl Ether (DIPE)	25.00	23.55	94	54-129	12	24
Ethyl tert-Butyl Ether (ETBE)	25.00	22.55	90	60-120	12	24
1,2-Dichloroethane	25.00	24.63	99	78-136	11	21
Benzene	25.00	26.04	104	80-123	8	21
Methyl tert-Amyl Ether (TAME)	25.00	23.84	95	70-120	12	22
Toluene	25.00	24.74	99	80-120	9	20
1,2-Dibromoethane	25.00	23.41	94	80-124	11	21
Ethylbenzene	25.00	26.06	104	80-122	9	20
m,p-Xylenes	50.00	53.14	106	80-127	10	20
o-Xylene	25.00	25.72	103	80-125	10	20

Surrogate	%REC	Limits
Dibromofluoromethane	93	78-134
1,2-Dichloroethane-d4	91	80-138
Toluene-d8	92	80-120
Bromofluorobenzene	92	78-123



BTXE & Oxygenates								
Lab #:	275217	Location:	2844 Mountain Blvd, Oakland					
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B					
Project#:	5082	Analysis:	EPA 8260B					
Type:	BLANK	Diln Fac:	1.000					
Lab ID:	QC828142	Batch#:	233261					
Matrix:	Soil	Analyzed:	03/21/16					
Units:	ug/Kg							

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	100	
MTBE	ND	5.0	
Isopropyl Ether (DIPE)	ND	5.0	
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Methyl tert-Amyl Ether (TAME)	ND	5.0	
Ethanol	ND	1,000	
Toluene	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	
Naphthalene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	95	78-134	
1,2-Dichloroethane-d4	89	80-138	
Toluene-d8	93	80-120	
Bromofluorobenzene	101	78-123	

ND= Not Detected RL= Reporting Limit

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BTXE & Oxygenates								
Lab #: 2752	217		Location:	2844 Mountain Blvd, Oakland				
Client: SOMA	A Environmental	Engineering Inc.	Prep:	EPA 5030B				
Project#: 5082	2		Analysis:	EPA 8260B				
Field ID:	DPT-8 @36		Batch#:	233261				
MSS Lab ID:	275217-006		Sampled:	03/15/16				
Matrix:	Soil		Received:	03/17/16				
Units:	ug/Kg		Analyzed:	03/21/16				
Basis:	as received							

Type: Lab ID: MS QC828152 Diln Fac: 0.9881

Analyte	MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	<8.327	247.0	154.0	62	44-120
MTBE	3.637	49.41	33.66	61	49-120
Isopropyl Ether (DIPE)	<0.5434	49.41	36.00	73	46-120
Ethyl tert-Butyl Ether (ETBE)	<0.5472	49.41	34.11	69	48-120
1,2-Dichloroethane	<0.6005	49.41	35.33	72	55-124
Benzene	<0.6707	49.41	38.99	79	57-120
Methyl tert-Amyl Ether (TAME)	<0.4668	49.41	35.57	72	52-120
Toluene	<0.7346	49.41	36.44	74	51-120
1,2-Dibromoethane	<0.4934	49.41	32.40	66	51-120
Ethylbenzene	<0.6861	49.41	37.24	75	45-120
m,p-Xylenes	<1.326	98.81	74.29	75	45-123
o-Xylene	<0.5724	49.41	36.09	73	44-122

Surrogate	%REC	Limits	
Dibromofluoromethane	94	78-134	
1,2-Dichloroethane-d4	95	80-138	
Toluene-d8	92	80-120	
Bromofluorobenzene	90	78-123	

Type: Lab ID: MSD QC828153 Diln Fac: 0.9862

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	246.5	185.5	75	44-120	19	46
MTBE	49.31	39.14	72	49-120	15	40
Isopropyl Ether (DIPE)	49.31	41.55	84	46-120	15	41
Ethyl tert-Butyl Ether (ETBE)	49.31	39.14	79	48-120	14	40
1,2-Dichloroethane	49.31	40.63	82	55-124	14	41
Benzene	49.31	43.67	89	57-120	12	44
Methyl tert-Amyl Ether (TAME)	49.31	40.97	83	52-120	14	36
Toluene	49.31	40.70	83	51-120	11	47
1,2-Dibromoethane	49.31	36.73	74	51-120	13	45
Ethylbenzene	49.31	40.95	83	45-120	10	55
m,p-Xylenes	98.62	80.79	82	45-123	9	53
o-Xylene	49.31	39.82	81	44-122	10	55

Surrogate	%REC	Limits
Dibromofluoromethane	92	78-134
1,2-Dichloroethane-d4	93	80-138
Toluene-d8	93	80-120
Bromofluorobenzene	90	78-123

APPENDIX D

PHOTOGRAPHIC DOCUMENTATION

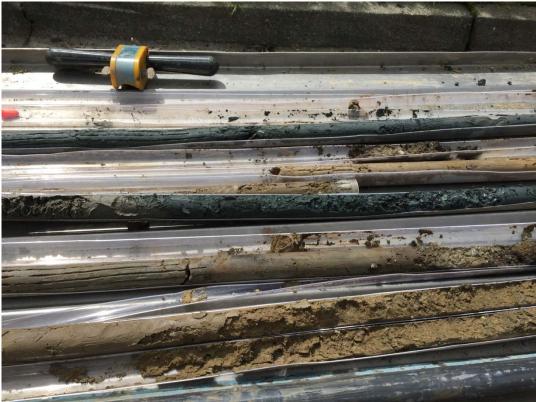


Drilling operation along Mountain Blvd



DPT rig is getting ready to drill first boring

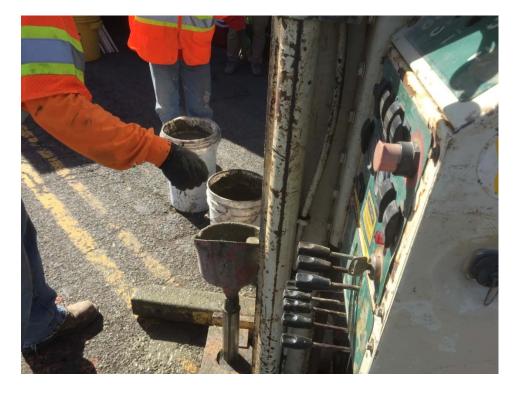




Comparing the color contrast of the blue and yellow sandy clay encountered almost in every borehole



Drilling along the Mountain Blvd



Grouting one of the DPT boreholes

APPENDIX E

WASTE MANIFEST

NON-HAZARDOUS WASTE MANIFEST

Pleas	e print or type (Form designed for use on elite (12 pitch) typewriter)					
	NON-HAZARDOUS WASTE MANIFEST 1. Generator's US EPA ID No.			Manifest Document No.		2. Page 1
	3. Generator's Name and Mailing Address DESERT PETROLEM	M				
	2844 MOUNTAIN				DOMA ENV	
		0-17.				
	4. Generator's Phone () OAKIAND, CA					
	5. Transporter 1 Company Name 6.	US EPA ID Number		A. State Transp	orter's ID	
	INSTRAT INC			B. Transporter 1	Phone	
	7. Transporter 2 Company Name 8.	US EPA ID Number		C. State Transp	orter's ID	N. T.
				D. Transporter 2	? Phone	
	9. Designated Facility Name and Site Address 10.	US EPA ID Number		E. State Facility	s ID	
	INSTRAT, INC.					
	1105 C ARPORT RO. RIO VISTA, CA 94571			F. Facility's Pho	ne (797) 374	-3834
	11. WASTE DESCRIPTION		12. C	ontainers	_13.	14.
			No.	Туре	Total Quantity	Unit Wt./Vol.
	a.					
	NON-HAZ MONITORING WELL	WATER	1	DRM	25	GAL
GEN	b.			-200	2	
N	NON-HAZ DRILL CUTTINGS			DRM	400	LBS
E R	C.					
A						
TO						
R	d.					
	G. Additional Descriptions for Materials Listed Above			H. Handling Co	des for Wastes Listed Abo	ove
	BROWN, SOIL & DEBRIS, NO ODOR					
	3002 7700					
	15. Special Handling Instructions and Additional Information					
	16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipme in proper condition for transport. The materials described on this manifest are not s	ent are fully and accurately describe subject to federal hazardous waste r	a and are i egulations	n all respects		
						D. f.
		Licenstone				Date Voc
	Printed/Typed Name	Signature			Mo	onth Day Yea
_	47. Transporter 4. Administratory of Descript of Metallicia	<u> </u>				Date
R	17. Transporter 1 Acknowledgement of Receipt of Materials	Signature	1.1	,		onth Day Yea
N	Printed/Typed Name	LL MI	11/1	1	IVIC	11 / 11/
P	18. Transporter 2 Acknowledgement of Receipt of Materials	1 /4/1/	M	- Company		Date
R		Signature			M	onth Day Yea
TRANSPORTER	Printed/Typed Name	Signature			IVIC	mar Bay rea
F	19. Discrepancy Indication Space					
AC						
ĭ	20. Facility Owner or Operator, Certification of receipt of the waste materials covered to	by this manifest, except as noted in	item 19.			
Ļ						Date
H	Printed/Typed Name	Signature		\	M	onth Day Yea
Y	MICHAEL WHITEHEAD	Nin	ha	2		4.16 116
	1.3 Chile					

