

RECEIVED

By DEHLOPTOXIC at 3:55 pm, Jun 30, 2006

June 28, 2006

**SOIL AND GROUNDWATER
INVESTIGATION REPORT**

6310 Houston Place
Dublin, California

Project No. 116304
ACHCS Fuel Leak Case RO0002862

Prepared For

Mr. Cary Greyson
G & G International Holding
2413 Stirrup Court
Walnut Creek, CA 94596

Prepared By

AEI Consultants
2500 Camino Diablo, Suite 200
Walnut Creek, CA 94597
(925) 283-6000

AEI



June 28, 2006

Mr. Cary Greyson
G & G International Holding
2413 Stirrup Court
Walnut Creek, CA 94596

Subject: Soil and Groundwater Investigation
6310 Houston Place
Dublin, California
AEI Project No. 116304
ACHCS Fuel Leak Case RO0002862

Dear Mr. Greyson:

The following report describes the activities and results of the subsurface investigation performed by AEI Consultants at the above referenced property (Figure 1: Site Location Map). The investigation was required by the Alameda County Health Care Services Agency (ACHCSA) to investigate the possible release of petroleum hydrocarbons from the former 12,000-gallon diesel underground storage tank (UST) removed from the property in 2004. The investigation included the collection and analysis of soil and groundwater samples from soil boring locations advanced in the vicinity of the former diesel UST, former dispenser island and product lines.

I Site Description and Background

The subject property is located in a commercial and light industrial area of Dublin, on the south side of Houston Place, just east of Dougherty Road. The subject property yard is currently vacant although the building is used for storage. Please refer to Figures 1 and 2 for the site location map and site plan details.

According to records on file with the Dublin Building Department (DBD), three USTs (one 12,000-gallon diesel USTs, one 7,500-gallon gasoline UST, and one 2,000-gallon gasoline UST) were installed on the subject property in 1968.

According to a case closure summary report prepared by the ACHCSA, a piping leak and a localized surface spill of used motor oil were discovered at the site prior to 1984. Following the release, 156 cubic yards of contaminated soil was removed from the site to the satisfaction of San Francisco Bay Regional Water Quality Control Board (SFRWQCB). On March 31, 1989, four USTs (one 500-gallon waste oil, two 12,000-gallon and one 8,000-gallon diesel tanks) were excavated, three of which were removed. One 12,000-gallon diesel UST was refinished internally with "Glass Armor" coating and was reinstalled for continued use. Soil samples collected from the sidewalls of the excavation during tank removal activities had concentrations of Total Petroleum Hydrocarbons as diesel (TPH-d) to 190 milligrams per kilogram (mg/kg) and

Total Oil and Grease (TOG) up to 240 mg/kg. No concentrations of TPH as gasoline; Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX); or chlorinated hydrocarbons were detected in these samples. One grab groundwater sample was collected from the diesel UST excavation, which had concentrations of TPH-d and TOG up to 380,000 micrograms per liter ($\mu\text{g/L}$) and 50,000 $\mu\text{g/l}$, respectively.

Following removal of the three USTs, three groundwater monitoring wells (MW-1 through MW-3) were installed on August 9, 1989, and quarterly groundwater monitoring and sampling commenced. To further define the extent of the groundwater contamination plume, three additional wells (MW-4 through MW-6) were installed between May 1990 and March 1991. TPH-d and TOG were detected up to 22,000 $\mu\text{g/L}$ and 8,600 $\mu\text{g/L}$, respectively, during initial sampling of these wells. Intermittent monitoring and sampling of the wells continued between August 1989 and October 1994. During the last sampling episode conducted in October 1994 concentrations of TPH-d and TOG were detected up to 850 $\mu\text{g/L}$ and 600 $\mu\text{g/L}$, respectively. Refer to Appendix A for previous groundwater sample analytical results. Based on a recent site inspection, the former onsite monitoring wells had been decommissioned. Approximate former well locations are shown on Figure 2.

Based on the gradual decline of TPH-d and TOG in the groundwater, and the remaining low concentrations of these contaminants in groundwater and soil, the ACHCSA granted case closure in a letter dated February 28, 1995.

At the request of a prospective purchaser of the property, AEI collected samples from on-site monitoring wells MW-1, MW-2, and MW-5 on January 23, 2001. TPH-d was detected up to 5,200 $\mu\text{g/L}$ in the samples. No concentrations of TOG were detected in these samples.

On October 27, 2004, the remaining 12,000-gallon diesel UST, fuel dispensers, and product piping were removed from the subject property by Golden Gate Tank Removal, Inc. (GGTR). Following excavation, GGTR collected a total of seven soil and two groundwater samples from the UST excavation bottom and sidewall, overburden stockpile, and areas in the vicinity of the fuel dispensers and product piping. These samples were analyzed for TPH-d, MTBE, and BTEX. TPH-d was detected at concentrations of 6 mg/kg and 197 mg/kg in stockpile soil samples and at a concentration of 1 mg/kg in a soil sample obtained from the UST excavation sidewall. TPH-d was detected in the water sample collected from the UST pit at 0.3 mg/L and at 23.8 mg/L in water that was present in the shallow excavation beneath the dispenser. Locations of the samples collected by GGTR are shown on Figures 2 and 3 and a summary of sample analytical data from the tank removal is presented in Tables 1 and 2. The excavation was backfilled with the stockpiled soil and imported fill.

Upon reviewing the GGTR Tank Closure Report, the ACHCSA issued a letter requesting the investigation presented in this report.

II Investigative Efforts

After approval of the scope of work for these investigation activities on March 10, 2006 by Mr. Barney Chan of the ACHCSA, a drilling permit application was submitted to and approved by the Alameda County Zone 7 Water Agency (Permit # 26044). Prior to commencing drilling activities, Underground Service Alert (USA) was notified to identify any onsite public utilities.

Soil Boring and Soil Sample Collection

AEI performed the subsurface investigation at the property on March 14, 2006. Five (5) soil borings were advanced to groundwater at depths ranging from 16 feet below ground surface (bgs) to 20 feet bgs. The borings were drilled adjacent to the former 12,000-gallon diesel UST, the former dispenser island and product lines, and down-gradient from the former diesel UST. As requested by Barney Chan of the ACHCSA, boring SB-1 was relocated to the east side of the former tank hold as opposed to the proposed west side location. It should be noted that placement of boring SB-2 was limited due to standing water from heavy precipitation prior to and on the day of drilling, and was moved to an area not inundated with water, near former monitoring well MW-5. Locations of the soil borings are presented on Figure 2.

Drilling work was performed by En-Prob, Inc., California C57 license # 777007. The borings were advanced using a truck-mounted Geoprobe™ 5410 direct push drilling rig. Soil samples were field screened using a photo ionization detector (PID). No significant PID readings were noted during sample collection from any of the borings. Field screening data is presented on the borings logs found in Appendix A.

The soil borings were continuously cored using a drive sampler that contained 4-foot long, 1.5-inch diameter acrylic liners. A 6-inch sample was cut from the liners at selected depths. The ends of the selected sample were sealed with Teflon film and plastic end-caps, labeled with unique identifiers, and placed in a cooler with water ice pending transportation to a state-certified laboratory. The remainder of the core was examined and described by an AEI geologist. The descriptions of the cores are included on the boring logs in Appendix A.

Groundwater Sample Collection

Groundwater was encountered in all of the borings at depths ranging from approximately 13 feet bgs to 13.8 feet bgs. Upon encountering groundwater, a 3/4" poly-vinyl chloride (PVC) temporary casing was installed to maintain an open hole and facilitate collection of groundwater. The temporary casing consisted of one 5-foot slotted section of 0.010 inch and 5-foot sections of blank 3/4-inch PVC casing. A sheen and diesel odor were noted in groundwater samples following groundwater collection from all of the borings. Depth to groundwater was measured at depths ranging from approximately 5.5 feet bgs to 6.8 feet bgs once the temporary casings were inserted.

Groundwater samples were collected using new disposable 3/8-inch bailers. Each groundwater sample was collected into three 40 ml volatile organic analysis (VOA) vials and one 1-liter

amber bottles. The groundwater samples were capped so that there was no headspace or visible air bubbles, and labeled with unique identifiers. The samples were then placed in a cooler with wet ice to await transportation to the laboratory.

Boring Destruction

Upon completion of sampling, the borings were sealed to the surface with neat cement grout to existing grade and topped with an asphalt patch.

Laboratory Analysis

Samples were transported on the same day of collection, March 13, 2006, to McCampbell Analytical Inc. (Department of Health Services Certification #1644) for analysis under chain of custody protocol.

Five (5) soil and five (5) groundwater samples were analyzed for total petroleum hydrocarbons (TPH) as diesel (TPH-d) and BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes) by EPA Method SW8021B/8015C, and Methyl Tertiary Butyl Ether (MTBE) by EPA Method SW8260B.

Remaining soil samples were placed on hold at the laboratory. Analytical reports and chain of custody documents are included as Appendix B.

III Findings

The near surface soil encountered in the borings generally consisted of fine sand overlying silty clay. Saturated sediments were encountered at approximately 13.5 feet bgs within a fine-grained sand or gravelly clay. Previous data from the former monitoring wells identified a southeasterly groundwater flow direction with a hydraulic gradient of 10^{-3} ft/ft. Refer to Attachment A for detailed logs of the borings.

Soil

TPH-d was detected in soil sample SB-4-8' at a concentration of 53 milligrams per kilogram (mg/kg).

No other TPH-d, MTBE, or BTEX concentrations were detected exceeding laboratory detection limits in the rest of the soil samples analyzed.

Groundwater

TPH-d was detected in all of the groundwater samples, up to a concentration of 580,000 micrograms per liter ($\mu\text{g/L}$).

Methyl tertiary butyl ether was detected in groundwater sample SB-4-W at a concentration of 2.6 µg/L.

No MTBE or BTEX analytes were detected exceeding laboratory reporting limits in the rest of the groundwater samples analyzed.

Soil and groundwater sample analytical data are presented in Tables 3 and 4.

IV Summary and Conclusions

This investigation was required by the Alameda County Health Care Services Agency (ACHCSA) to investigate the possible release of petroleum hydrocarbons from the former 12,000-gallon diesel UST removed from the property in 2004. The investigation included the collection and analysis of soil and groundwater samples from borings drilled adjacent to the former 12,000-gallon diesel UST, the former dispenser island and product lines, and down-gradient from the former diesel UST.

Groundwater sample analyses revealed the presence of diesel-range petroleum hydrocarbons in the groundwater in the vicinity of the former diesel UST. Light Non-Aqueous Phase Liquid (LNAPL) was reported by the laboratory in all five of the groundwater samples collected, although visible free phase hydrocarbons were not observed. The source of the released diesel is likely the former diesel UST. In addition, the distribution of dissolved phase diesel and apparent LNAPL indicates that the plume is migrating down-gradient to the south-southeast.

MTBE detected in groundwater sample SB-4-W is very low and not indicative of a significant MTBE plume, but may be residual from the former release of the older tanks.

Based on the results of this investigation, it appears that the source of the diesel release post-dates the previous releases at the property, which was given case closure. Further investigation of soil and groundwater will be required characterize the extent and nature of the recent release. Since groundwater has been impacted, the installation of monitoring wells will be necessary to evaluate local groundwater conditions on the property and the stability of the hydrocarbon plume.

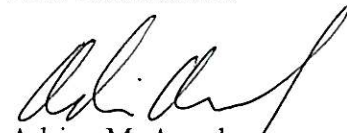
VI Report Limitation

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the required information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact either of the undersigned at (925) 283-6000.

Sincerely,
AEI Consultants


Adrian M. Angel
Project Geologist


Peter J. McIntyre, P.G.
Senior Project Geologist



Figures

- Figure 1: Site Location Map
- Figure 2: Site Plan with Soil Borings
- Figure 3: Contaminant Distributions

Tables

- Table 1: Tank Removal Soil Sample Analytical Data
- Table 2: Tank Removal Groundwater Sample Analytical Data
- Table 3: Soil Sample Analytical Data – March 14, 2006
- Table 4: Groundwater Sample Analytical Data – March 14, 2006

Appendix A

Soil Boring Logs

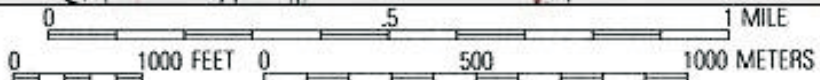
Appendix B

Sample Analytical and Chain of Custody Documentation

FIGURES



TN
 MN
 15°

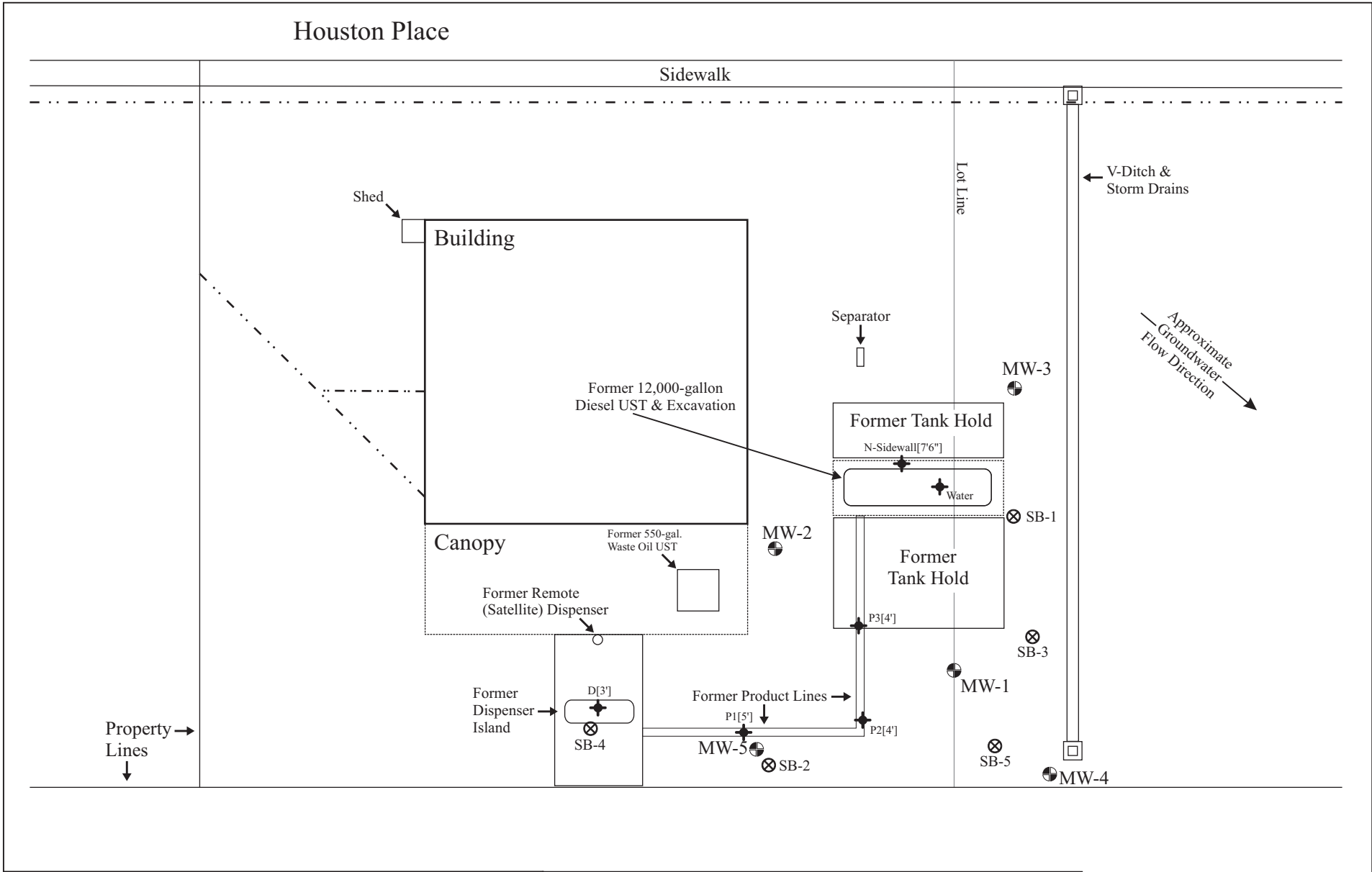


Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)

USGS DUBLIN, CALIFORNIA
 QUADRANGLE TOPOGRAPHIC MAP
 Created 1979, Revised 1980

AEI CONSULTANTS 2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597	
SITE LOCATION MAP	
6310 HOUSTON PLACE DUBLIN, CA 94568	FIGURE 1 PROJECT No. 116304

Houston Place



AEI CONSULTANTS
 2500 CAMINO DIABLO, STE 200 WALNUT CREEK, CA 94597

Site Plan

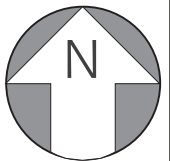
6310 HOUSTON PLACE
 DUBLIN, CA 94568

FIGURE 2
 Project # 116304

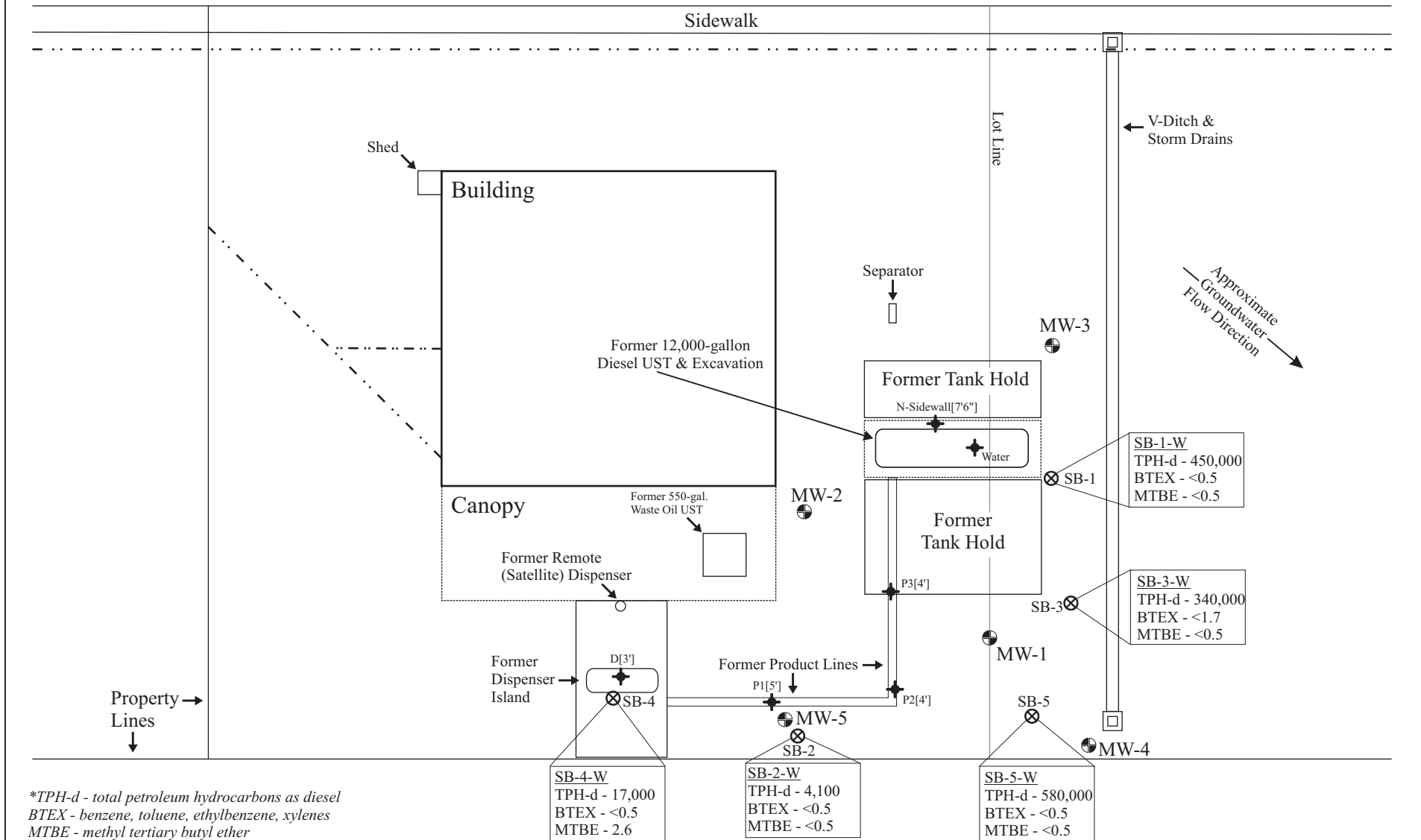
LEGEND

- ⊕ Former Monitoring Well Location
- ⬤ Tank Removal Sample Locations (GGTR, 2004)
- ⊗ Boring Location (3/14/016)
- · - · - Approximate Location of Subsurface Utilities

0' 10' 20' 30'
 Scale: 1 in = 30 ft
 Revised Mar. 2006



Houston Place



*TPH-d - total petroleum hydrocarbons as diesel
BTEX - benzene, toluene, ethylbenzene, xylenes
MTBE - methyl tertiary butyl ether

AEI CONSULTANTS
2500 CAMINO DIABLO, STE 200 WALNUT CREEK, CA 94597

Contaminant Distributions

6310 HOUSTON PLACE
DUBLIN, CA 94568

FIGURE 3
Project # 116304

LEGEND

- ⊕ Former Monitoring Well Location
- ⬠ Tank Removal Sample Locations (GGTR, 2004)
- ⊗ Boring Location (3/14/016)
- - - Approximate Location of Subsurface Utilities

***Values represent contaminant concentrations in groundwater in units of micrograms per liter (ug/L)**

0' 10' 20' 30'

Scale: 1 in = 30 ft
Revised Mar. 2006

TABLES

Table 1
Soil Sample Analytical Data
Diesel, BTEX, & MTBE

Sample ID	Date	TPH-d mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	MTBE mg/kg
			<i>EPA Method 8021B/8015C</i>				<i>EPA Method 8260B</i>
SB-1-8'	3/14/06	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
SB-2-8'	3/14/06	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
SB-3-8'	3/14/06	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
SB-4-8'	3/14/06	53	<0.005	<0.005	<0.005	<0.005	<0.005
SB-5-8'	3/14/06	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005
LDL		1.0	0.005	0.005	0.005	0.005	0.005

TPH-d - total petroleum hydrocarbons as diesel

MTBE - methyl tertiary butyl ether

LDL = laboratory detection limit (with no dilution) - see laboratory reports for sample specific dilution factors

SB - Soil boring

Table 2
Groundwater Sample Analytical Data
Diesel, BTEX, & MTBE

Sample ID	Date	TPH-d µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L
			<i>EPA Method 8021B/8015C</i>				<i>EPA Method 8260B</i>
SB-1-W	3/14/06	450,000	<0.5	<0.5	<0.5	<0.5	<0.5
SB-2-W	3/14/06	4,100	<0.5	<0.5	<0.5	<0.5	<0.5
SB-3-W	3/14/06	340,000	<0.5	<0.5	<0.5	<0.5	<0.5
SB-4-W	3/14/06	17,000	<0.5	<0.5	<0.5	<0.5	2.6
SB-5-W	3/14/06	580,000	<0.5	<0.5	<0.5	<0.5	<0.5
LDL		1.0	0.5	0.5	0.5	0.5	0.5

TPH-d - total petroleum hydrocarbons as diesel

MTBE - methyl tertiary butyl ether

LDL = laboratory detection limit (with no dilution) - see laboratory reports for sample specific dilution factors

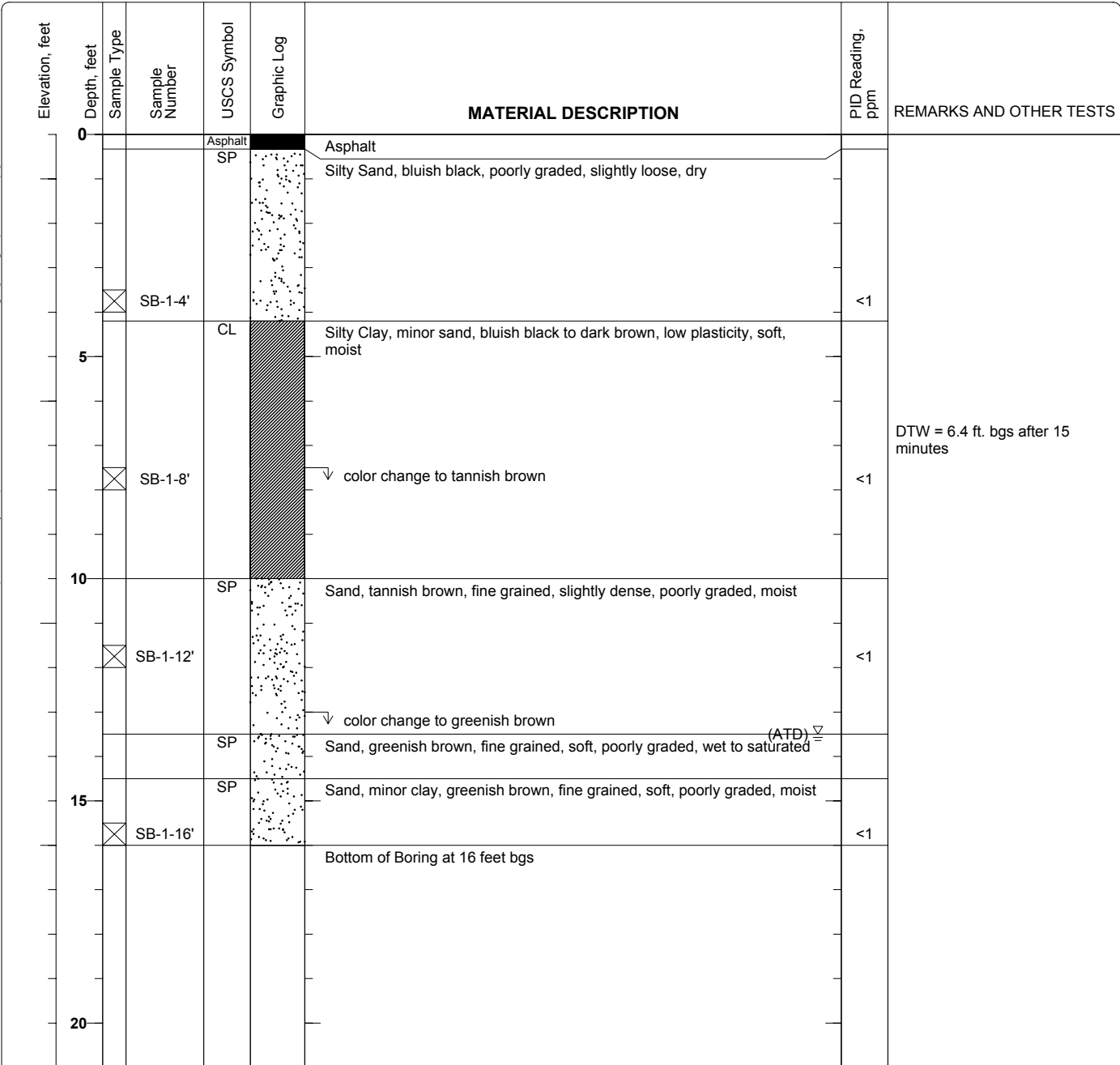
SB - Soil boring

APPENDIX A
Soil Boring Logs

Project: G & G International
Project Location: 6310 Houston Place, Dublin, CA
Project Number: 116304

Log of Boring SB-1
 Sheet 1 of 1

Date(s) Drilled	March 14, 2006	Logged By	Adrian Angel	Checked By	Peter McIntyre
Drilling Method	Direct Push	Drill Bit Size/Type	2 3/4 inch	Total Depth of Borehole	16 feet bgs
Drill Rig Type	Geoprobe 5410	Drilling Contractor	En-Prob	Approximate Surface Elevation	
Groundwater Level and Date Measured	13.5 feet ATD	Sampling Method(s)	Tube	Well Permit.	
Borehole Backfill	Neat Cement with Asphalt Patch	Location			



DTW = 6.4 ft. bgs after 15 minutes

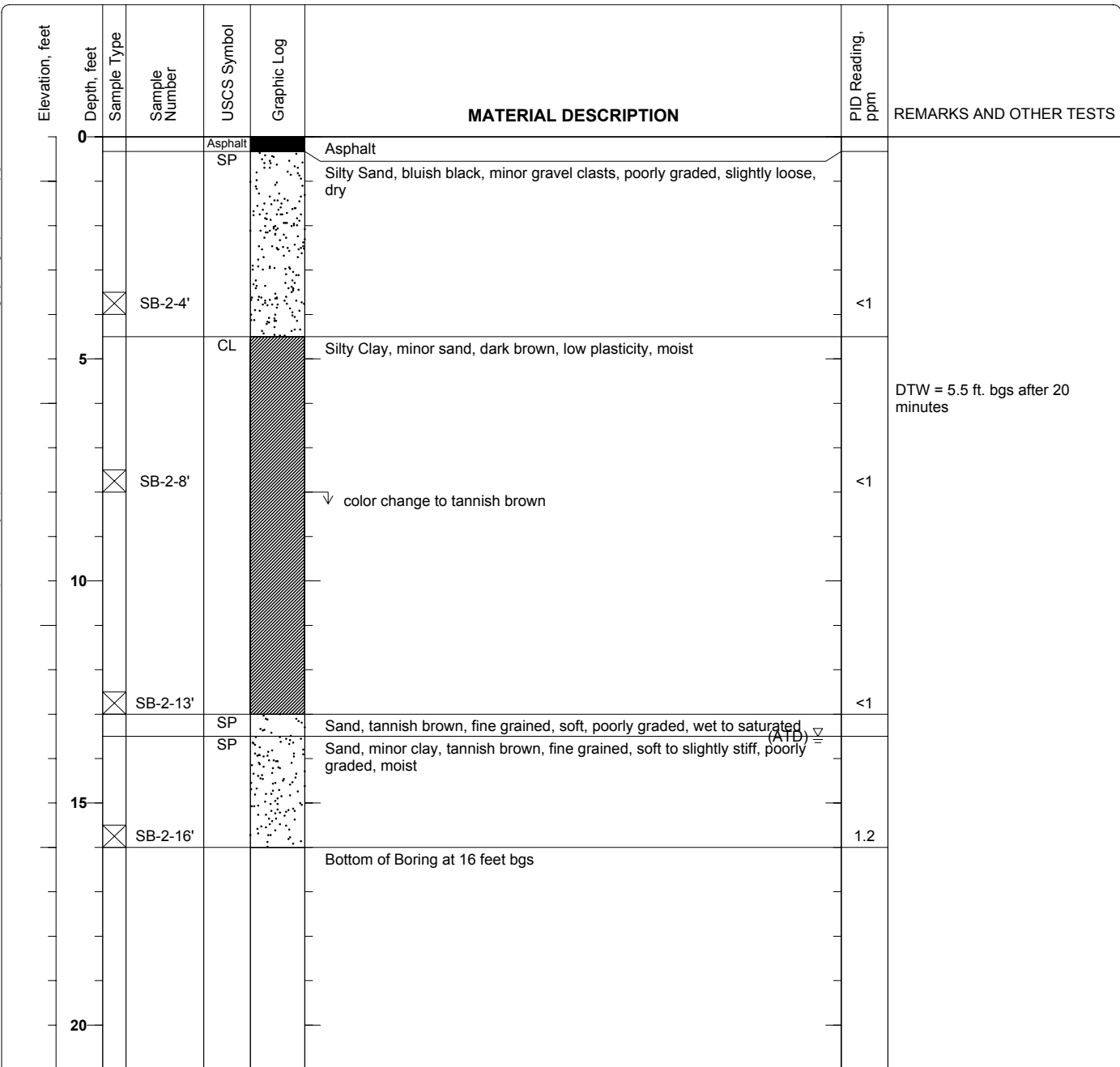
Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\116304 SGW\ (G&G - Greystone) Dublin\116304 SGW\116304.bgs [AEl] geoprobe 20.tpl]

Project: G & G International
Project Location: 6310 Houston Place, Dublin, CA
Project Number: 116304

Log of Boring SB-2
 Sheet 1 of 1

Date(s) Drilled	March 14, 2006	Logged By	Adrian Angel	Checked By	Peter McIntyre
Drilling Method	Direct Push	Drill Bit Size/Type	2 3/4 inch	Total Depth of Borehole	16 feet bgs
Drill Rig Type	Geoprobe 5410	Drilling Contractor	En-Prob	Approximate Surface Elevation	
Groundwater Level and Date Measured	13.5 feet ATD	Sampling Method(s)	Tube	Well Permit.	
Borehole Backfill	Neat Cement with Asphalt Patch	Location			



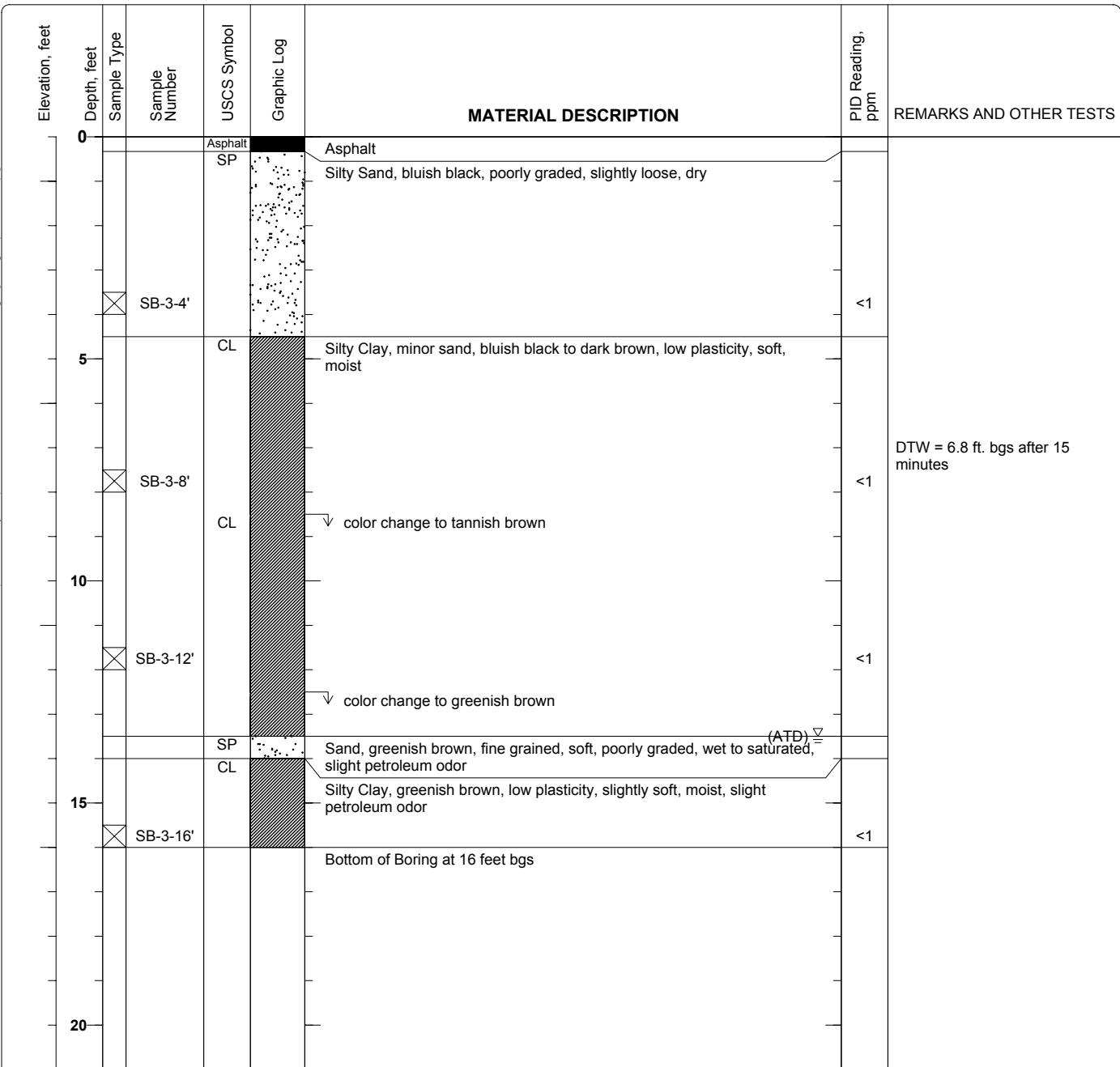
Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\116304 SGW\ (G&G - Greystone) Dublin\116304.bgs [AEI geoprobe 20.tpl]

Project: G & G International
Project Location: 6310 Houston Place, Dublin, CA
Project Number: 116304

Log of Boring SB-3
 Sheet 1 of 1

Date(s) Drilled	March 14, 2006	Logged By	Adrian Angel	Checked By	Peter McIntyre
Drilling Method	Direct Push	Drill Bit Size/Type	2 3/4 inch	Total Depth of Borehole	16 feet bgs
Drill Rig Type	Geoprobe 5410	Drilling Contractor	En-Prob	Approximate Surface Elevation	
Groundwater Level and Date Measured	13.5 feet ATD	Sampling Method(s)	Tube	Well Permit.	
Borehole Backfill	Neat Cement with Asphalt Patch	Location			



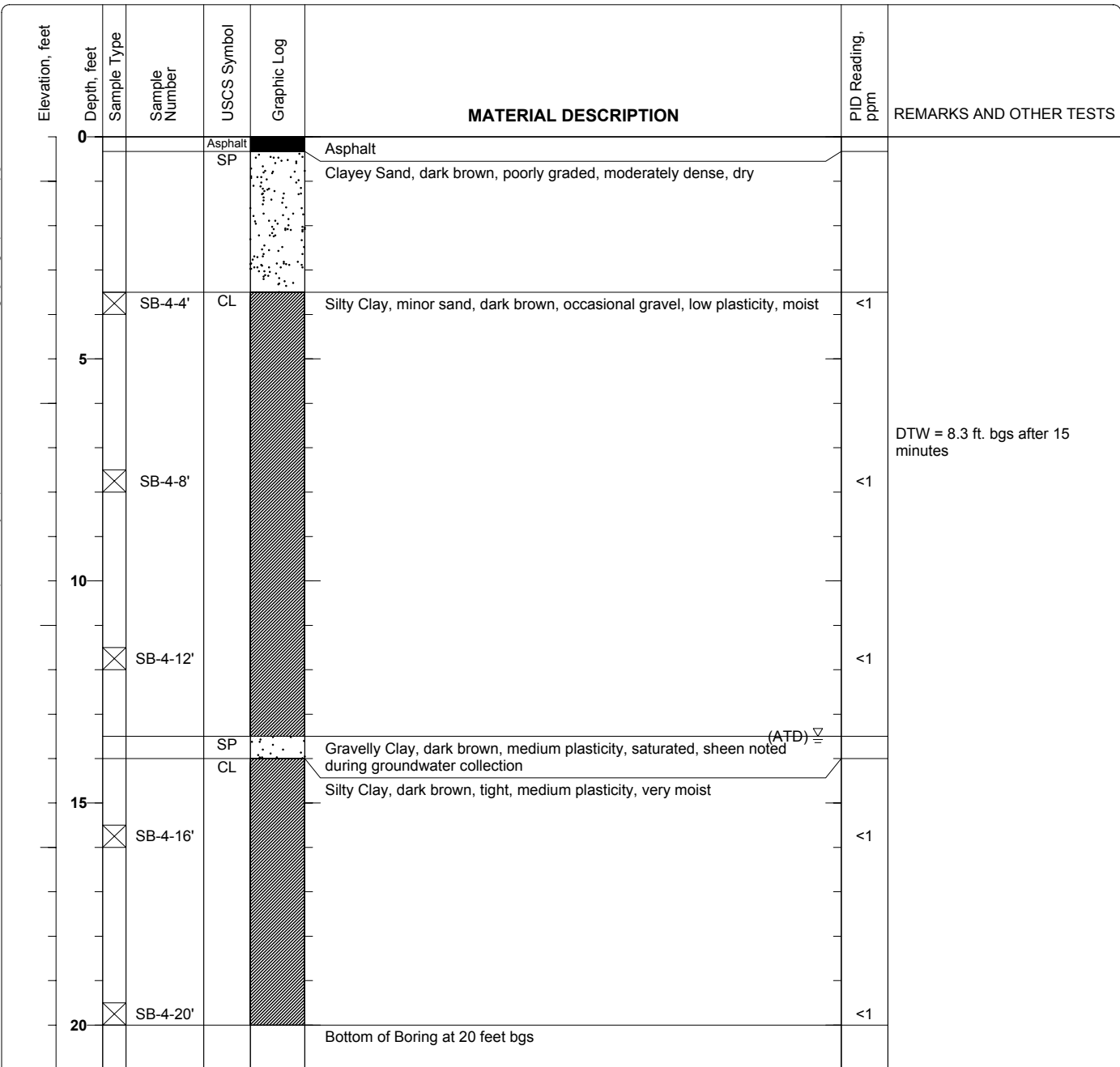
Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\116304 SGWI (G&G - Greystone) Dublin\116304.bgs [AEI geoprobe 20.tpl]

Project: G & G International
Project Location: 6310 Houston Place, Dublin, CA
Project Number: 116304

Log of Boring SB-4
 Sheet 1 of 1

Date(s) Drilled	March 14, 2006	Logged By	Adrian Angel	Checked By	Peter McIntyre
Drilling Method	Direct Push	Drill Bit Size/Type	2 3/4 inch	Total Depth of Borehole	20 feet bgs
Drill Rig Type	Geoprobe 5410	Drilling Contractor	En-Prob	Approximate Surface Elevation	
Groundwater Level and Date Measured	13.5 feet ATD	Sampling Method(s)	Tube	Well Permit.	
Borehole Backfill	Neat Cement with Asphalt Patch	Location			



DTW = 8.3 ft. bgs after 15 minutes

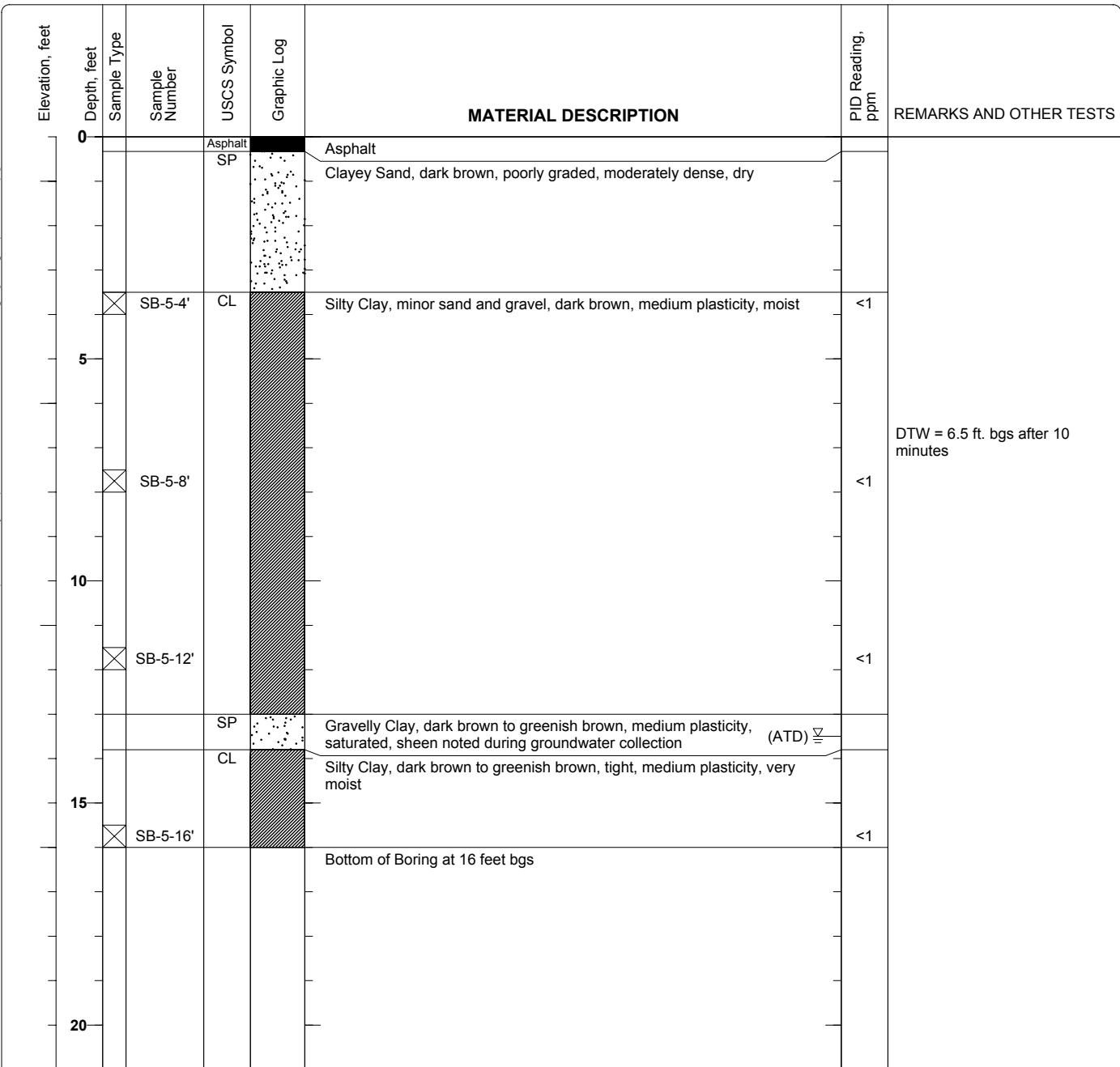
Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\116304 SGWI (G&G - Greystone) Dublin\116304 SGWI\116304.bgs [AEI geoprobe 20.tpl]

Project: G & G International
Project Location: 6310 Houston Place, Dublin, CA
Project Number: 116304

Log of Boring SB-5
 Sheet 1 of 1

Date(s) Drilled	March 14, 2006	Logged By	Adrian Angel	Checked By	Peter McIntyre
Drilling Method	Direct Push	Drill Bit Size/Type	2 3/4 inch	Total Depth of Borehole	16 feet bgs
Drill Rig Type	Geoprobe 5410	Drilling Contractor	En-Prob	Approximate Surface Elevation	
Groundwater Level and Date Measured	13.5 feet ATD	Sampling Method(s)	Tube	Well Permit.	
Borehole Backfill	Neat Cement with Asphalt Patch	Location			



X:\PROJECTS\CHARACTERIZATION & REMEDIATION\CHARACTERIZATION\116304 SGWI (G&G - Greystone) Dublin\116304 SGWI\116304.bgs [AEI geoprobe 20.tpl]

Figure

APPENDIX B

Sample Analytical Data With Chain of Custody Documentation

**McC Campbell Analytical, Inc.**

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mcccampbell.com E-mail: main@mcccampbell.com

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116304; G & G	Date Sampled: 03/14/06
		Date Received: 03/14/06
	Client Contact: Adrian Angel	Date Reported: 03/20/06
	Client P.O.:	Date Completed: 03/21/06

WorkOrder: 0603239

March 21, 2006

Dear Adrian:

Enclosed are:

- 1). the results of **10** analyzed samples from your **#116304; G & G project**,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH
 24 HR
 48 HR
 72 HR
 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Adrian Angel Bill To: Same
 Company: AET Consultants
2500 Camino Diablo
Walnut Creek CA E-Mail:
 Tele: () (925) 283-6000 Fax: () (925) 283-6121
 Project #: 116304 Project Name: 636
 Project Location: Dublin
 Sampler Signature: [Signature]

Analysis Request Other Comments

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	MTBE by 8260 BTEX by 8021							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other																							
SB-1-4'	Dublin	5/14/06	11:15A	1	A	X					X																										
SB-1-8'			11:20A	1	C									X																							
SB-1-12'			11:25A	1	C																																
SB-1-16'			11:30A	1	F																																
SB-2-4'			12:15P	1	A																																
SB-2-8'			12:30P	1	F									X																							
SB-2-13'			12:32P	1	e																																
SB-3-4'			10:35A	1																																	
SB-3-8'			10:40A	1										X																							
SB-3-12'			10:42A	1																																	
SB-3-16'			10:15A	1																																	
SB-4-4'			8:15A	1																																	
SB-4-8'			8:20A	1										X																							
SB-4-12'			8:30A	1																																	

Relinquished By: [Signature] Date: 3/14/06 Time: 6:00P Received By: [Signature]
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____
 Relinquished By: _____ Date: _____ Time: _____ Received By: _____

ICE/° _____ PRESERVATION _____
 GOOD CONDITION _____ APPROPRIATE _____
 HEAD SPACE ABSENT _____ CONTAINERS _____
 DECHLORINATED IN LAB _____ PERSERVED IN LAB _____

VOAS O&G METALS OTHER

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Telephone: (925) 798-1620

Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Adrian Angel Bill To: _____
Company: AEI Consultants
2500 Camino Diablo
Walnut Creek CA E-Mail: _____
Tele: 0 (925) 283-6000 Fax: 0 (925) 283-6121
Project #: 116304 Project Name: 636
Project Location: Dublin
Sampler Signature: [Signature]

Analysis Request		Other	Comments
BTEX & TPH as Gas (602/8020 + 8015)/MTBE			
TPH as Diesel (8015)			
Total Petroleum Oil & Grease (5520 E&F/B&F)			
Total Petroleum Hydrocarbons (418.1)			
EPA 601 / 8010			
BTEX ONLY (EPA 602 / 8020)			
EPA 608 / 8080			
EPA 608 / 8080 PCB's ONLY			
EPA 624 / 8240 / 8260			
EPA 625 / 8270			
PAH's / PNA's by EPA. 625 / 8270 / 8310			
CAM-17 Metals			
LUFT 5 Metals			
Lead (7240/7421/239.2/6010)			
RCI			
		<u>MTBE by 8260</u>	
		<u>BTEX by 8021</u>	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED							
		Date	Time			Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other				
<u>SB-4-16'</u>	<u>Dublin</u>	<u>3/14/06</u>	<u>8:31A</u>	<u>1</u>	<u>A</u>		<u>X</u>						<u>X</u>					
<u>SB-4-20'</u>					<u>C</u>													
<u>SB-5-4'</u>			<u>9:45A</u>		<u>F</u>													
<u>SB-5-8'</u>			<u>9:58A</u>		<u>F</u>													
<u>SB-5-12'</u>			<u>10:00A</u>		<u>F</u>													
<u>SB-5-16'</u>				<u>4</u>	<u>11/3WA</u>		<u>X</u>											
<u>SB-1-W</u>							<u>X</u>											
<u>SB-2-W</u>																		
<u>SB-3-W</u>																		
<u>SB-4-W</u>																		
<u>SB-5-W</u>																		

Relinquished By: [Signature] Date: 3/14/06 Time: 6:00PM Received By: [Signature]
Relinquished By: _____ Date: _____ Time: _____ Received By: _____
Relinquished By: _____ Date: _____ Time: _____ Received By: _____

ICE/t° _____ PRESERVATION _____
GOOD CONDITION _____ APPROPRIATE _____
HEAD SPACE ABSENT _____ CONTAINERS _____
DECHLORINATED IN LAB _____ PERSERVED IN LAB _____

VOAS _____ O&G _____ METALS _____ OTHER _____

McCampbell Analytical, Inc.



110 Second Avenue South, #D7
 Pacheco, CA 94553-5560
 (925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0603239

ClientID: AEL

EDF: NO

Report to:

Adrian Angel
 AEI Consultants
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597

TEL: (925) 283-6000
 FAX: (925) 283-6121
 ProjectNo: #116304; G & G
 PO:

Bill to

Joanne Bryant
 AEI Consultants
 2500 Camino Diablo, Ste. #200
 Walnut Creek, CA 94597

Requested TAT: 5 days

Date Received: 03/14/2006

Date Printed: 03/14/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0603239-002	SB-1-8'	Soil	03/14/2006	<input type="checkbox"/>	A		A		A								
0603239-006	SB-2-8'	Soil	03/14/2006	<input type="checkbox"/>	A		A		A								
0603239-009	SB-3-8'	Soil	03/14/2006	<input type="checkbox"/>	A		A										
0603239-013	SB-4-8'	Soil	03/14/2006	<input type="checkbox"/>	A		A		A								
0603239-018	SB-5-8'	Soil	03/14/2006	<input type="checkbox"/>	A		A		A								
0603239-021	SB-1-W	Water	03/14/2006	<input type="checkbox"/>		A		B		C							
0603239-022	SB-2-W	Water	03/14/2006	<input type="checkbox"/>		A		B		C							
0603239-023	SB-3-W	Water	03/14/2006	<input type="checkbox"/>		A		B		C							
0603239-024	SB-4-W	Water	03/14/2006	<input type="checkbox"/>		A		B		C							
0603239-025	SB-5-W	Water	03/14/2006	<input type="checkbox"/>		A		B		C							

Test Legend:

1	G-MBTEX_S	2	G-MBTEX_W	3	MTBE_S	4	MTBE_W	5	TPH(D)_S
6	TPH(D)_W	7		8		9		10	
11		12							

Prepared by: Rosa Venegas

Comments:

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



McC Campbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
 Website: www.mccampbell.com E-mail: main@mccampbell.com

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116304; G & G	Date Sampled: 03/14/06
		Date Received: 03/14/06
	Client Contact: Adrian Angel	Date Extracted: 03/14/06-03/16/06
	Client P.O.:	Date Analyzed: 03/15/06-03/16/06

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0603239

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
002A	SB-1-8'	S	---	---	ND	ND	ND	ND	1	92
006A	SB-2-8'	S	---	---	ND	ND	ND	ND	1	94
009A	SB-3-8'	S	---	---	ND	ND	ND	ND	1	96
013A	SB-4-8'	S	---	---	ND	ND	ND	ND	1	96
018A	SB-5-8'	S	---	---	ND	ND	ND	ND	1	93
021A	SB-1-W	W	---	---	ND	ND	ND	ND	1	95
022A	SB-2-W	W	---	---	ND	ND	ND	ND	1	97
023A	SB-3-W	W	---	---	ND<1.7	ND<1.7	ND<1.7	ND<1.7	3.3	91
024A	SB-4-W	W	---	---	ND	ND	ND	ND	1	98
025A	SB-5-W	W	---	---	ND	ND	ND	ND	1	102

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	0.5	1	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; o) results are reported on a dry weight basis.



McC Campbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
 Website: www.mcccampbell.com E-mail: main@mcccampbell.com

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116304; G & G	Date Sampled: 03/14/06
		Date Received: 03/14/06
	Client Contact: Adrian Angel	Date Extracted: 03/14/06-03/16/06
	Client P.O.:	Date Analyzed: 03/16/06

Methyl tert-Butyl Ether*

Extraction method: SW5030B

Analytical methods: SW8260B

Work Order: 0603239

Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% SS
002A	SB-1-8'	S	ND	1	99
006A	SB-2-8'	S	ND	1	100
009A	SB-3-8'	S	ND	1	99
013A	SB-4-8'	S	ND	1	99
018A	SB-5-8'	S	ND	1	94
021B	SB-1-W	W	ND,h	1	105
022B	SB-2-W	W	ND,h	1	108
023B	SB-3-W	W	ND,h	1	108
024B	SB-4-W	W	2.6,h	1	107
025B	SB-5-W	W	ND,h	1	107

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.5	µg/L
	S	0.005	mg/kg

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



McC Campbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
 Website: www.mcccampbell.com E-mail: main@mcccampbell.com

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #116304; G & G	Date Sampled: 03/14/06
		Date Received: 03/14/06
	Client Contact: Adrian Angel	Date Extracted: 03/14/06
	Client P.O.:	Date Analyzed: 03/14/06-03/16/06

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C/SW3550C

Analytical methods: SW8015C

Work Order: 0603239

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0603239-002A	SB-1-8'	S	ND	1	99
0603239-006A	SB-2-8'	S	ND	1	98
0603239-009A	SB-3-8'	S	ND	1	100
0603239-013A	SB-4-8'	S	53,c	1	99
0603239-018A	SB-5-8'	S	ND	1	100
0603239-021C	SB-1-W	W	450,000,c,g,h	10	109
0603239-022C	SB-2-W	W	4100,a,g,h	1	104
0603239-023C	SB-3-W	W	340,000,a,h	10	104
0603239-024C	SB-4-W	W	17,000,a,h	1	104
0603239-025C	SB-5-W	W	580,000,c,h	100	---#

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	1.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0603239

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 20705			Spiked Sample ID: 0603227-001A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) £	ND	0.60	113	115	1.23	109	113	3.78	70 - 130	70 - 130
MTBE	ND	0.10	93.8	91.5	2.47	94.8	93.9	0.916	70 - 130	70 - 130
Benzene	ND	0.10	92.9	89.8	3.37	92.2	92.8	0.682	70 - 130	70 - 130
Toluene	ND	0.10	92	89.5	2.72	94.2	93.5	0.770	70 - 130	70 - 130
Ethylbenzene	ND	0.10	94.6	92.9	1.80	93.8	93.8	0	70 - 130	70 - 130
Xylenes	ND	0.30	95	94.7	0.351	95	95.3	0.350	70 - 130	70 - 130
%SS:	93	0.10	95	94	1.06	101	100	1.12	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 20705 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603239-002A	3/14/06 11:20 AM	3/14/06	3/15/06 12:44 AM	0603239-006A	3/14/06 12:30 PM	3/14/06	3/15/06 1:14 AM
0603239-009A	3/14/06 10:40 AM	3/14/06	3/15/06 1:43 AM	0603239-013A	3/14/06 8:20 AM	3/14/06	3/15/06 2:12 AM
0603239-018A	3/14/06 9:58 AM	3/14/06	3/15/06 3:11 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 £ TPH(btex) = sum of BTEX areas from the FID.
 # cluttered chromatogram; sample peak coelutes with surrogate peak.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603239

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 20729			Spiked Sample ID: 0603232-005A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) £	ND	60	100	105	4.79	115	112	2.46	70 - 130	70 - 130
MTBE	ND	10	82.8	92.4	11.0	91.7	91.8	0.0745	70 - 130	70 - 130
Benzene	ND	10	92.7	99.1	6.62	97.6	98.8	1.28	70 - 130	70 - 130
Toluene	ND	10	87.2	92.5	5.88	99	100	1.06	70 - 130	70 - 130
Ethylbenzene	ND	10	94.8	98.5	3.82	99.4	101	1.27	70 - 130	70 - 130
Xylenes	ND	30	90	95	5.41	100	100	0	70 - 130	70 - 130
%SS:	105	10	102	100	2.53	99	100	1.62	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 20729 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603239-021A	3/14/06	3/16/06	3/16/06 2:20 AM	0603239-022A	3/14/06	3/16/06	3/16/06 2:53 AM
0603239-023A	3/14/06	3/16/06	3/16/06 12:45 AM	0603239-024A	3/14/06	3/16/06	3/16/06 3:25 AM
0603239-025A	3/14/06	3/16/06	3/16/06 3:58 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0603239

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 20698			Spiked Sample ID: 0603188-003a		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Methyl-t-butyl ether (MTBE)	ND	0.050	106	104	2.48	106	108	1.95	70 - 130	70 - 130
%SS1:	94	0.050	112	112	0	112	114	1.08	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 20698 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603239-002A	3/14/06 11:20 AM	3/14/06	3/16/06 12:23 AM	0603239-006A	3/14/06 12:30 PM	3/14/06	3/16/06 1:06 AM
0603239-009A	3/14/06 10:40 AM	3/14/06	3/16/06 1:48 AM	0603239-013A	3/14/06 8:20 AM	3/14/06	3/16/06 2:31 AM
0603239-018A	3/14/06 9:58 AM	3/14/06	3/16/06 3:13 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.
 Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603239

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 20720			Spiked Sample ID 0603211-005C		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Methyl-t-butyl ether (MTBE)	ND	10	116	105	10.5	96.8	94.9	2.04	70 - 130	70 - 130
%SS1:	101	10	107	102	4.25	105	104	0.473	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 20720 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603239-021B	3/14/06	3/16/06	3/16/06 5:39 AM	0603239-022B	3/14/06	3/16/06	3/16/06 6:21 AM
0603239-023B	3/14/06	3/16/06	3/16/06 7:04 AM	0603239-024B	3/14/06	3/16/06	3/16/06 7:47 AM
0603239-025B	3/14/06	3/16/06	3/16/06 8:29 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder: 0603239

EPA Method: SW8015C		Extraction: SW3550C			BatchID: 20706			Spiked Sample ID: 0603239-009A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	ND	20	91.3	91.4	0.151	91.4	91.3	0.0794	70 - 130	70 - 130
%SS:	100	50	97	96	0.318	97	97	0	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 20706 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603239-002A	3/14/06 11:20 AM	3/14/06	3/14/06 9:16 PM	0603239-006A	3/14/06 12:30 PM	3/14/06	3/14/06 10:25 PM
0603239-009A	3/14/06 10:40 AM	3/14/06	3/14/06 11:33 PM	0603239-013A	3/14/06 8:20 AM	3/14/06	3/15/06 12:58 AM
0603239-018A	3/14/06 9:58 AM	3/14/06	3/15/06 2:07 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0603239

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 20719			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	103	100	3.07	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	103	102	0.974	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE										

BATCH 20719 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0603239-021C	3/14/06	3/14/06	3/15/06 2:23 AM	0603239-022C	3/14/06	3/14/06	3/15/06 4:34 PM
0603239-023C	3/14/06	3/14/06	3/15/06 3:32 AM	0603239-024C	3/14/06	3/14/06	3/15/06 12:08 AM
0603239-025C	3/14/06	3/14/06	3/16/06 3:00 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 % Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.