Richard W. Ely Registered Geologist #4137 2138 Green Hill Rd. Sebastopol, CA 95472 707-824-4836

October 29, 2001

Mr. Don Hwang Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, CA 94502-8577

Groundwater Monitoring Report Salle's Paint & Body Shop 1049 9th Avenue Oakland, CA 94606

01-71-05PO5:

Dear Mr. Hwang:

Mr. Richard Ely, Registered Geologist, has been retained by Mr. Dick Cochran to prepare this Groundwater Monitoring Report for a former waste-oil underground storage tank (UST) located at Salle's Paint & Body Shop, 1049 9th Avenue, California (site) (Figure 1). The Alameda County Health Care Services Agency (ACHCSA) requested this investigation, which provides the results of the second of four proposed quarterly monitoring events that the site.

BACKGROUND

The site is owned by C&C Property Management Trust, and has been occupied by Salle's Paint & Body Shop since approximately 1981. With the exception of a small parking area on the west, the site is entirely occupied by a large building that fronts on the sidewalks on the east and north and the property line on the south.

UST Removal Activities

Walker's Hydraulics Inc. of Concord, California removed a 280-gallon UST for waste oil from the site on July 20, 1994. Barney Chan of the ACHCSA witnessed the removal. The UST was located beneath the sidewalk on the 9th Avenue side of the building. Touchstone Developments of San Francisco, California observed the tank removal and collected two soil samples from the excavation, and a four-fold composite-sample from the spoil pile. The field activities and analytical results were presented in an Underground Storage Tank Removal Report dated August 3, 1994.

September 2000 Monitoring Well Installations

On September 8, 2000, three soil borings were constructed and converted into monitoring wells to assess the groundwater gradient and the impact to the shallow ground water. The soil borings were drilled to approximately 20 feet depth. Figure 2 shows the locations of wells.

The wells were screened to monitor the first water-bearing zone encountered. Fifteen feet of well screen was used in the wells, with approximately 4.8-ft of blank casing on top. The wells were constructed with flush-threaded, 2-inch diameter Schedule 40 PVC blank casing with 0.010-inch factory-milled screen size. Number #2/12 RMC sand was used in the annular space around the well screen to approximately one foot above the top of the screen. One foot of bentonite pellets was used to separate the sand from the sanitary surface seal (grout).

WELL SAMPLING

Water level measurements were made in all wells using an electronic water level meter and noted on the sampling form (Appendix A). Well MW-1 was sampled by Environmental Sampling Services on September 18, 2001. Wells MW-2 and MW-3 were not sampled because they have been non-detect for all analytes.

Prior to sampling, well MW-1 was checked for the presence of free-phase hydrocarbons using an interface probe, clear bailer, or tape with product detection paste. The well was purged of a minimum of five well-casing volumes of water using a pre-cleaned sampling pump. Temperature, pH and electrical conductivity were measured at least three times during purging. Purging continued until these parameters had stabilized (i.e., changes in temperature, pH or conductivity did not exceed ± 0.5 F, 0.1 or 5 percent, respectively).

The purge water was stored temporarily on-site in DOT 17H 55-gallon drums pending analytic results. The drums were labeled with the date, contents, and the field personnel initials, and telephone number.

Groundwater samples were collected from the well with new disposable PVC bailers. For the sample to be analyzed for Halogenated Volatile Organic Compounds (HVOCs), a bottom-emptying device was used to minimize loss of volatile components. The samples were labeled to include sample ID, date, preservative, and the field technician's initials. The samples were placed in polyethylene bags and in a chilled ice chest for transport under chain-of-custody to the laboratory.

Laboratory Analysis

Analytical Sciences, of Petaluma, California, a state-certified laboratory analyzed the samples using methods approved by the California Regional Water Quality Control Board (CRWQCB) and the Environmental Protection Agency (EPA). The laboratory analyzed the water samples for TPHg (EPA Method 8015 Modified); TPHd (EPA Method 8015 Modified); BTEX compounds and methyl-tert-butyl-ether (MTBE) (EPA Method 8020); and HVOCs (EPA Method 8010).

Analyses for Oil & Grease (EPA Method 418.1) and Semi-Volatile Organic Compounds (EPA Method 8270) were discontinued because these methods had yielded non-detect results in the previous sampling event. Don Hwang of the ACHCSA, in a letter dated February 13, 2001, approved the discontinuation of these analyses.

Disposal of Wastewater

Water from equipment decontamination and well sampling was stored in DOT 17-H 55-gallon drums. The water will be disposed of in accordance with State and local regulations.

HYDROGEOLOGY

The site is situated at an elevation of 18-feet (ft) above Mean Sea Level in an area of apartment buildings and small businesses. The Oakland Inner Harbor (part of San Francisco Bay) lies 1100 feet to the south. Late Pleistocene age alluvial fan deposits of the Temescal Formation underlie the site. These materials have moderate permeability and consist primarily of interfingering lenses of clayey gravel, sandy silty clay, and sand-silt-clay mixtures.

On September 18, 2001 the depth to static groundwater ranged from 11.13 to 12.50 ft below top-of-casing (Table 1). The water table gradient and flow direction were 0.033 ft/ft and S35°E, respectively (Figure 2).

ANALYTICAL RESULTS

Laboratory analytical data sheets are included in Appendix B.

No MTBE (Method 8020) was detected in the groundwater sample from MW-1 (Table 2).

In monitoring well MW-1, positive detections were reported for TPH-diesel (TPHd) (63 μ g/l), TPH-gasoline (TPHg) (250 μ g/l), toluene (3.1 μ g/l), ethyl benzene (3.3 μ g/l), and xylenes (3.4 μ g/l). The laboratory reported the diesel-range compounds to be the high-boiling components of gasoline.

Chlorobenzene was detected at $0.82 \mu g/l$ (Method 8010) in MW-1; no other chlorinated solvents were reported.

DISCUSSION

After four monitoring episodes, TPH-gasoline, TPH-diesel (probably weathered gasoline), BTEX compounds and chlorobenzene are the only contaminants detected to date at the site. Probably some gasoline was disposed of in the waste-oil tank along with oil. and grease. Because gasoline-range compounds and BTEX are more mobile than oil, they have been detected in monitoring well MW-1.

The concentrations of TPHg , benzene, ethyl benzene, xylenes and chlorobenzene have all declined since groundwater monitoring began in September 2000 (Table 1). TPHd has declined since March 2001. Toluene has fluctuated between <0.5 μ g/l and 4.5 μ g/l since September 2000.

Chlorobenzene has been detected twice, and the concentration has declined somewhat from the initial detection in September 2000.

Concentrations of chlorobenzene and the BTEX compounds are below the California State Maximum Contaminant Levels (MCLs). Benzene is the only compound that has exceeded the California State MCL. These data are summarized below:

Compound	California State MCL (µg/l)	Maximum Concentration (μg/l)	Concentration on 09/18/ 2001 (μg/l)	
Chlorobenzene	70	1,1	0.82	
Benzene	1.0	1.7	<0.5	
Toluene	150	4.5	3.1	
Ethyl Benzene	700	3.5	3.3	
Total Xylenes	1,750	9.8	3.4	

The plume is confined to the immediate vicinity of the former UST location. Downgradient wells MW-2 and MW-3 located about 50 ft from the former UST have had no detections of these compounds.

CONCLUSIONS

Concentrations of BTEX compounds and chlorobenzene are below California State MCLs for these compounds. Concentrations of TPHg, BTEX and chlorobenzene have declined slightly during since monitoring began. The concentration of TPHd has declined from 170 μ g/l to 63 μ g/l since March 2001, and may have declined since September 2000 (the reporting limit for that event was 100 μ g/l).

Slow degradation of the contaminants is taking place and will continue to do so in the future.

RECOMMENDATIONS

The site should be considered for case closure.

If the site not closed, monitoring should be done on a biannual basis beginning in March 2002.

Sincerely,

Richard W. Ely RG #4197

2138 Green Hill Rd. Sebastopol, CA 95472

707-824-4836



The following Figures, Tables and Appendixes are attached:

Figure 1 Site Location Map

Figure 2 Groundwater Elevation Map

Table 1. Excavation Soil Sample Analytical Results

Table 2. Groundwater Elevations

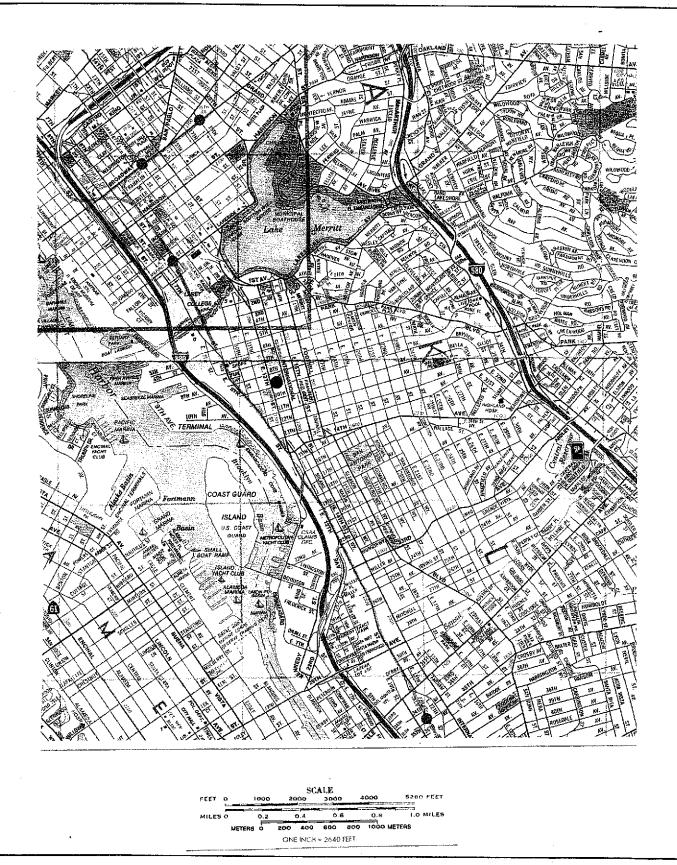
Table 3. Monitoring Well Soil Sample Analytical Results

Table 4. Groundwater Sample Analytical Results

Appendix A Well Sampling Data Sheets

Appendix B Laboratory Analytical Data Sheets

cc: Dick Cochran



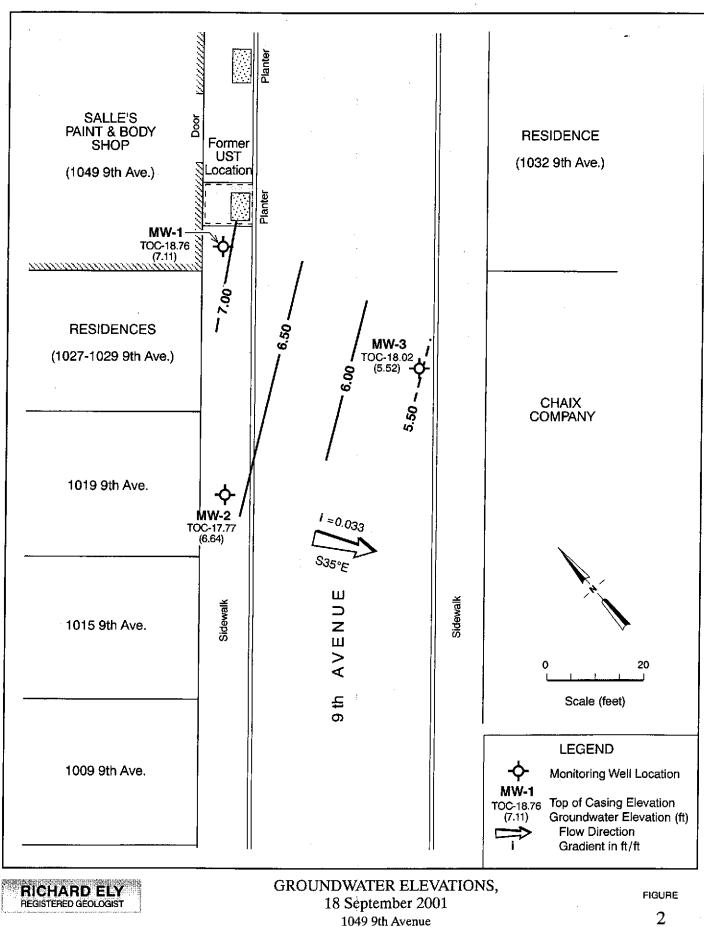
RICHARD ELY

LOCATION MAP 1049 9th Avenue Oakland, California

FIGURE

1

JOB NUMBER TRACE 165 REVIEWED BY R. Ely December 1999 REVISED DATE



JOB REFERENCE Salle's Paint & Body Shop

REVIEWED BY

Richard Ely

Oakland, California

April 2001

REVISED DATE October 2001

TABLE 1
GROUNDWATER ELEVATIONS
SALLE'S PAINT & BODY SHOP,
1049 9TH AVENUE, OAKLAND, CALIFORNIA

Well ID	Date	Top of Casing Elevation*	Depth to Groundwater	Groundwater Elevation*	Gradient
	09/29/00		11,35	7.41	0.033/S30°E
3 BY 1	03/05/01	10.50	9,35	9.41	0.019/S77°V
MW-1	05/31/01	18.76	10.18	8.58	0.031/S24°E
	09/18/01		11.65	7.11	0.033/S35°E
	09/29/00		10,92	6.85	0.033/S30°F
MW-2	03/05/01] ,,,,,,	9.13	8.64	0.019/S77°V
IVI VV - 2	05/31/01	17.77	9,83	7.94	0.031/S24°E
_	09/18/01] [11,13	6.64	0.033/S35°E
				· • • • • • • • • • • • • • • • • • • •	
	09/29/00		12.09	5.93	0.033/\$30°E
MW-3	03/05/01	18.02	8.54	9.48	0.019/S77°V
141 AL -2	05/31/01	10.02	10.91	7.11	0.031/S24°E
	09/18/01		12.50	5.52	0.033/S35°E

Note: * = Feet, Mean Sea Level

TABLE 2 GROUNDWATER SAMPLE ANALYTICAL RESULTS SALLE'S PAINT & BODY SHOP, 1049 9TH AVENUE, OAKLAND, CALIFORNIA

Sample ID	Date	Oil & Grease	TPH ¹ Diesel	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Xylenes	MtBE ²	Chloro- benzene ³	Semi-Volatile Organics ⁴
MW-1	09/29/00	ND ⁵ <100 ⁶	ND<100	280	1.4	ND<0.5	2.5	4.5	ND<2.5	1.1	ND
	03/05/01	NA ⁷	170 ⁸	300	1.7	2.1	1.4	2.6	ND<2.5	ND<0.5	NA
	05/31/01	NA	70 ⁷	380	1.0	4.5	3.5	9.8	ND<2.5	ND<0.5	NA
	09/18/01	NA	63	250	<0.5	3.1	3.3	3.4	ND<2.5	0.82	NA
					·					l .	
MW-2	09/29/00	ND<100	ND<100	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1,5	ND<2.5	ND<0.5	ND
	03/05/01	NA	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<2.5	ND<0.5	NA
•			· · · · · · · · · · · · · · · · · · ·		•		**************************************	· · · · · · · · · · · · · · · · · · ·	l		
MW-3	09/29/00	ND<100	ND<100	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<2.5	ND<0.5	ND
	03/05/01	NA	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<2.5	ND<0.5	NA

Notes:

- TPH = Total Petroleum Hydrocarbons 1.
- Methyl tert-Butyl Ether 2.
- 3. Other EPA Method 8010 Compounds are ND
- EPA method 8270 4.
- ND = Not Detected at or above the reporting limit All results in micrograms per liter ($\mu g/l$) 5.
- 6.
- 7. NA = Not Analyzed
- Laboratory reports this to be weathered gasoline 8.

APPENDIX A

WATER QUALITY SAMPLE LOG SHEETS



FIELD ACTIVITY REPORT QUARTERLY GROUNDWATER MONITORING 1049-9th AVENUE OAKLAND, CALIFORNIA SEPTEMBER 2001

ESS Personnel: Stephen Penman

Date of Activities: September 18, 2001

Decontamination Procedures

All downhole equipment was cleaned with a solution of Liqui-Nox® laboratory-grade detergent and potable water, rinsed with potable water, followed by a final rinse with distilled water.

Field Equipment Calibration

All field measurements were performed in accordance with the instruments' calibration and operating procedures. Instrument calibrations were performed on a daily basis. Field measurements included pH, specific conductance, turbidity, and temperature.

Water Level Measurements

Water level measurements for three monitoring wells were performed with a Solinst® electrical water level indicator. All measurements were referenced to the surveyor's mark on the well casing.

Well Evacuation Procedures

One monitoring well (MW-1) was purged using a new disposable PVC bailer. After removal of three casing volumes and stabilization of groundwater quality parameters, the monitoring well was sampled for: Halogenated Volatile Organic Compounds (HVOCs-EPA Method 8010), Total Petroleum Hydrocarbon (TPH) as Gasoline/BTEX and MTBE (EPA Method 8015/8020) and TPH as Diesel (EPA Method 8015M).

Sample Handling

Analytical Sciences of Petaluma, California supplied all sample containers and performed required analyses. Samples were relinquished on September 19, 2001.

TPH (Gas)/BTEX, MTBE and HVOCs samples were contained in six 40-ml clear glass containers preserved with hydrochloric acid.

TPH (Diesel) samples were contained in two, non-preserved, 1-Liter amber glass containers.



All samples were placed in bubblewrap protective material, sealed in Ziploc® bags and stored in a chilled ice chest for storage and shipment.

QA/QC

No QA/QC samples were requested for this project.

Comments

All derived groundwater and decontamination water were placed into a labeled 55-gallon drum. Approximately 10 gallons were generated during this sampling event.

Jacqueline Lee

President

Enclosure

Table 1: Summary of Groundwater Level Measurements

Water Sample Log Sheet

Chain of Custody



Quarterly Groundwater Level Measurements

Client: Richard Ely

Project Name: 1049-9th Avenue

Project Location: 1049-9th Avenue, Oakland, California

Date of Measurement: September 18, 2001

Well I.D.	Time of Measurement	Water Level (Ft.,TOC)
MW-1	11:15	11.65
MW-2	11:12	11.13
MW-3	11:10	12.5

Legend:

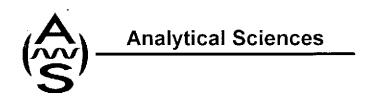
Ft., TOC = measured in feet, from top of well casing @ north rim



WATER QUALITY SAMPLE LOG SHEET WELL IDENTIFICATION: MW-1 DATE: 9/18/01								
Project N	Project Name: 1049 9th Avenue - Oakland Project Contact: Richard Ely							
Weather: Overcest + Cool ~ 67°								
Well Des	cription	2") 3" 4" 5	" 6" Oth	ier:	Well Type			
ls Well S	ecured 🔾	es / No Bol	t Size	2 tr	Type of lock	/ Lock nui	mber: 🔼	hin /1600
Observat	tions / Co	mments:						
								Pump Other:
					Bailer Line: N			
		~ `			Tap Water D			
					Tap Water D			
					Bailer Grundf			
					Spec. Cond. I			
Date/Tim	ne Calibra	ted: <u>7// C [</u>	25 4 7 1	ஹ 25°C	Spec.Cond. M	leter Calil	bration: (Sel	f Test Other:
								ppm @ Well Head
					ter Level Prior			
								V) = <u>3.9</u> (Gals.)
("K"=	0.163(2" w	rell)			02(5" well) "K			= 2.61(8" well)
			FIELD	WATER Q	UALITY PARA	METERS	<u> </u>	
D-4-	Ti	Diachassa	m* 1		Specific	Turbiditu	Color	Comments
Date	Time	Discharge (gallons)	pН	Temp. (ºC)	Conductance mS us	(NTU's)		Comments
					Υ		Clever	
10/8/1	11:34	0.1	6.58	z0.7	168.2	89,3	Lt. Roun	Act. Odor
10/8/19	11:34	0.1 2.0	6.58	20.7 20.6	168.2	84.3 168	Lt. Rown	Act. Odor
9/18/01	11:37	٥.د	6.52		**		Lt. Rown	Act. Oder
9/18/01	11:37	3.0	6.52 6.48	20.6 20.5	177.7	168	Lt. Round 11 Grewith Lt. Brown	Pet. Odor
9/18/01	FE:11	2.0 3.0 4.0	6.52 6.48 6.52	20.6 20.5 20.3	177.7 184.5 187.3	780 780	Lt. Round 11 Grewith Lt. Brown	Pet. Odor
9/18/01	11:37	3.0	6.52 6.48	20.6 20.5	177.7	280 168	II Great	Pet. Odor
9/18/01	FE:11	2.0 3.0 4.0	6.52 6.48 6.52	20.6 20.5 20.3	177.7 184.5 187.3	780 780	Lt. Round 11 Grewith Lt. Brown	Pet. Odor
9/18/01	FE:11	2.0 3.0 4.0	6.52 6.48 6.52	20.6 20.5 20.3	177.7 184.5 187.3	780 780	Lt. Round 11 Grewith Lt. Brown	Pet. Odor
9/18/01	FE:11	2.0 3.0 4.0	6.52 6.48 6.52	20.6 20.5 20.3	177.7 184.5 187.3	780 780	Lt. Round 11 Grewith Lt. Brown	Pet. Odor
V	11:40 11:40 11:40	0.c 0.p 0.7	6.52 6.48 6.52	20.6 20.5 20.3	177.7 184.5 187.3 184.9	83-4 780 168	Lt. Brown Lt. Brown Lt. Brown Lt. Brown Lt. Brown	
Total Dis	11:37 11:40 11:43 11:46	3.0 3.0 4.0 5.0	6.52 6.52 6.53	20.6 20.5 20.3 20.1	197.7 184.5 187.3 184.9	168 280 402 834	greative of Breative of Breati	8
Total Dis	11:37 11:40 11:43 11:46	3.0 4.0 5.0 5.0 I of discharge	6.52 6.48 6.52 6.53	20.6 20.5 20.3 20.1	197.7 184.5 187.3 184.9 Casing Volum Drums) Pol	\$68 280 402 834 nes Remo	ved: 3.	System Other:
Total Dis Method of Date/Tim	II:37 II:40 II:40 II:46 charge: of disposa	3.0 4.0 5.0 5.0 ol of discharge	6.52 6.52 6.53 allons ed water:(20.6 20.3 20.1 55 Gallon Analysi	184.5 184.9 184.9 Casing Volum Drums) Pol	Ses 180 402 834 nes Remo y Tank T	ved: 3.	8
Total Dis Method (Date/Tim (5 VOC's	II:37 II:40 II:43 II:46 scharge:_of disposate Sample Sample Sw/Hcl) at	3.0 4.0 5.0 5.0 I of discharge	6.52 6.48 6.52 6.53 allons ed water:(20.6 20.3 20.1 55 Gallon Analysi	197.7 184.5 187.3 184.9 Casing Volum Drum(s) Polis/No. of Bottles liter glass amb	Ses 280 402 834 nes Remo y Tank 1 s: TPHg, E	ved: 3.	System Other:
Total Dis Method of Date/Tim (5 VOC's QA/QC:	II:37 II:40 II:45 II:46 charge: of disposa ne Sample s w/Hcl) a	3.0 4.0 5.0 gl of discharge ed: 7/1/01 (and TPH Diese	6.52 6.52 6.53 allons ed water:(0.11:54	20.6 20.3 20.1 55 Gallon Analysis	184.5 184.3 184.9 Casing Volum Drums) Polis/No. of Bottles liter glass amb	Ses 280 402 834 nes Remo y Tank 1 s: TPHg, E	ved: 3.	System Other:
Total Dis Method of Date/Tim (5 VOC's QA/QC:	II:37 II:40 II:45 II:46 charge: of disposa ne Sample s w/Hcl) a	3.0 4.0 5.0 5.0 I of discharge	6.52 6.52 6.53 allons ed water:(0.11:54	20.6 20.3 20.1 55 Gallon Analysis	184.5 184.3 184.9 Casing Volum Drums) Polis/No. of Bottles liter glass amb	Ses 280 402 834 nes Remo y Tank 1 s: TPHg, E	ved: 3.	System Other:
Total Dis Method of Date/Tim (5 VOC's QA/QC:	II:37 II:40 II:45 II:46 charge: of disposa ne Sample s w/Hcl) a	3.0 4.0 5.0 gl of discharge ed: 7/1/01 (and TPH Diese	6.52 6.52 6.53 allons ed water:(0.11:54	20.6 20.3 20.1 55 Gallon Analysis	184.5 184.3 184.9 Casing Volum Drums) Polis/No. of Bottles liter glass amb	Ses 280 402 834 nes Remo y Tank 1 s: TPHg, E	ved: 3.	System Other:
Total Dis Method of Date/Tim (5 VOC's QA/QC: Commer	II:40 II:40 II:43 II:46 II:46 II:46 II:46	3.0 4.0 5.0 S.O I of discharge ed: 7/1/01 ond TPH Diese	6.52 6.52 6.53 allons ed water:(0.11:54 el/ Oil & C as an	20.6 20.5 20.3 20.1 55 Gallon Analysic reace (2-1 Equipment	184.5 184.3 184.9 Casing Volum Drums) Polis/No. of Bottles liter glass amb	Ses 280 402 834 res Remo y Tank 1 s: TPHq. I sers N/P). icate MS	ved: 3.	System Other:

APPENDIX B

LABORATORY ANALYTICAL DATA SHEETS



Report Date: October 5, 2001

Harris & Lee Environmental Sciences P.O. Box 8369 Santa Rosa, CA 95407 ATTN: Richard Ely

LABORATORY REPORT

Project Name:

1049 9th Avenue, Oakland

Lab Project Number:

1091902

This 7 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.

Laboratory Director



TPH Gasoline in Water

Lab#	Sample ID	Analysis	Result (ug/L)	RDL (ug/L)
04493	MW-1	TPH/Gasoline	250	50
		MTBE	ND	2.5
		Benzene	ND	0.5
		Toluene	3.1	0.5
		Ethyl Benzene	3.3	0.5
		Xylenes	3.4	1.5

Date Sampled:	09/18/01	Date Analyzed:	09/26/01	QC Batch #: _2	2121
Date Received:	09/19/01	Method:	EPA 5030/8015M/8020		

TPH Diesel in Water

Lab # 04493	Sample ID MW-1	Analy TPH/Dies		Result (ug/L)	RDL (ug/L) 50
Date Sampled:	09/18/01	Date Extracted:	09/19/01	QC Batch #:	2100
Date Received:	09/19/01	Date Analyzed:	09/19/01		EPA 3510/8015M

Lab Project #: 1091902



Chlorinated Solvents in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
04493		dichlorodifluoromethane	ND	0.5
	*****	chloromethane	ND	0.5
		vinyl chloride	ND	0.5
		bromomethane	ND	0.5
		chloroethane	ND	0.5
		trichlorofluoromethane	ND	0.5
		1,1-dichloroethene	ND	0.5
		methylene chloride	ND	0.5
		trans-1,2-dichloroethene	ND	0.5
		1,1-dichloroethane	ND	0.5
		cis-1,2-dichloroethene	ND	0.5
		chloroform	ND	0.5
		1,1,1-trichloroethane	ND	0.5
		carbon tetrachloride	ND	0.5
		1,2-dichloroethane	ND	0.5
		trichloroethene	ND	0.5
		1,2-dichloropropane	ND	0.5
		bromodichloromethane	ND	0.5
		dibromomethane	ND	0.5
		trans-1,3-dichloropropene	ND	0.5
		1,1,2-trichloroethane	ND	0.5
		tetrachloroethene	ND	0.5
		dibromochloromethane	ND	0.5
		chlorobenzene	0.82	0.5
		1,1,1,2-tetrachloroethane	ND	0.5
		bromoform	ND	0.5
		1,1,2,2-tetrachloroethane	ND	0.5
		1,2,3-trichloropropane	ND	0.5
		bromobenzene	ND	0.5
		chlorotoluene	ND	0.5
		1,3-dichlorobenzene	ND	0.5
		1,4-dichlorobenzene	ND	0.5
		1,2-dichlorobenzene	ND	0.5
Date Sampl Date Receiv		Date Analyzed: 09/25/01 Method: EPA 5030/8010	QC Batch	#: _2132

Page 3 of 7

Lab Project #: 1091902



LABORATORY QUALITY ASSURANCE REPORT

QC Batch #: 2121

Lab Project #: 1091902

Sample ID	Compound	Result (ug/L)
MB	TPH/Gas	ND
MB	MTBE	ND
MB	Benzene	ND
MB	Toluene	ND
MB	Ethyl Benzene	ND
MB	Xylenes	ND

Sample		Result	Spike	% Prov
ID	Compound	(ug/L)	<u>Level</u>	Recv.
LCS	TPH/Gas		NS	
LCS	Benzene	10.1	10.0	101
LCS	Toluene	10.3	10.0	103
LCS	Ethyl Benzene	10.2	10.0	102
LCS	Xylenes	30.7	30.0	102

Sample ID	Compound	Result (ug/L)	Spike Level	% Recv	RPD
LCSD	TPH/Gas		NS		
LCSD	Benzene	10.8	10.0	108	5.8
LCSD	Toluene	10.9	10.0	109	6.0
LCSD	Ethyl Benzene	10.7	10.0	107	4.8
LCSD	Xylenes	32.3	30.0	108	5.2

MB = Method Blank; LCS = Laboratory Control Sample; CMS = Client Matrix Spike; CMSD = Client Matrix Spike Duplicate NS = Not Spiked; OR = Over Calibration Range



QC Batch #: 2100

Lab Project #: 1091902_____

MB = Method Blank; LCS = Laboratory Control Sample; CMS = Client Matrix Spike; CMSD = Client Matrix Spike Duplicate NS = Not Spiked; OR = Over Calibration Range



QC Batch #: 2132

Lab Project #: __1091902

Sample ID	Compound Name	Result (ug/L)
MB	dichlorodifluoromethane	ND
	chloromethane	ND
	vinyl chloride	ND
	bromomethane	ND
	chloroethane	ND
	trichlorofluoromethane	ND
	1,1-dichloroethene	ND
	methylene chloride	ND
	trans-1,2-dichloroethene	ND
	1,1-dichloroethane	ND
	cis-1,2-dichloroethene	ND
	chloroform	ND
	1,1,1-trichloroethane	ND
	carbon tetrachloride	ND
	1,2-dichloroethane	ND
	trichloroethene	ND
	1,2-dichloropropane	ND
	bromodichloromethane	ND
	dibromomethane	ND
	trans-1,3-dichloropropene	ND
	1,1,2-trichloroethane	ND
	tetrachloroethene	ND
	dibromochloromethane	ND
	chlorobenzene	ND
	1,1,1,2-tetrachloroethane	ND
	bromoform	ND
	1,1,2,2-tetrachloroethane	ND
	1,2,3-trichloropropane	ND
	bromobenzene	ND
	chlorotoluene	ND
	1,3-dichlorobenzene	ND
	1,4-dichlorobenzene	ND
	1,2-dichlorobenzene	ND



Sample ID	Compound Name	Result (ug/L)	Spike Level	% Recv.
LCS	dichlorodifluoromethane	ND		
LOO	chloromethane	ND		
	vinyl chloride	ND		
	bromomethane	ND		
	chloroethane	ND		
	trichlorofluoromethane	ND		
	1,1-dichloroethene	ND		
	methylene chloride	ND		
	trans-1,2-dichloroethene	ND		
	1,1-dichloroethane	7.30	8.00	91.2
	cis-1,2-dichloroethene	ND		
	chloroform	ND		
	1,1,1-trichloroethane	7.86	8.00	98.2
	carbon tetrachloride	ND		
	1,2-dichloroethane	ND		
	trichloroethene	7.91	8.00	98.9
	1,2-dichloropropane	ND		
	bromodichloromethane	ND		
	dibromomethane	ND		
	trans-1,3-dichloropropene	ND		
	1,1,2-trichloroethane	ND		
	tetrachloroethene	7.85	8.00	98.1
	dibromochloromethane	ND		
	chlorobenzene	8.12	8.00	102
	1,1,1,2-tetrachloroethane	ND		
	bromoform	ND		
	1,1,2,2-tetrachloroethane	ND		
	1,2,3-trichloropropane	ND		
	bromobenzene	ND		
	chlorotoluene	ND		
	1,3-dichlorobenzene	ND		
	1,4-dichlorobenzene	ND		
	1,2-dichlorobenzene	8.81	8.00	110

MB = Method Blank; LCS = Laboratory Control Sample; CMS = Client Matrix Spike; CMSD = Client Matrix Spike Duplicate NS = Not Spiked; OR = Over Calibration Range



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110 Liberty Street, Petaluma, CA 94952

(707) 769-3128 Fax (707) 769-8093

CHAIN OF CUSTODY

LAB PROJECT NUMBER:

COMPANY NAME:	HARRIS & LEE ENVIRONMENTAL SCIENCES
Address:	P.O. Box 8369
	SANTA ROSA, CA 95407
CONTACT:	RICHARD ELY
PHONE#:	(707) 571-8961
FAX #:	(707) 571-8688

	CLIENT'S PROJECT NAME:	1049	9th Avenue Oakland
	CLIENT'S PROJECT NUMBER:		
			COOLER TEMBERATURE
MOBILE LAB			Iced °C
SAME DAY	24 Hours		
48 Hours	72 Hours		COC
5 Days	NORMAL X		PAGE OF

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ПЕМ	CLIENT SAMPLE ID.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	TPH/GAS/BTEX & MTBE EPA 8015M/8020	TPH DIESEL EPA 8015M	OXYGENATED FUEL ADDITIVES EPA 8260M	VOLATILE HYDROCARBONS EPA 8260	CHLORINATED SOLVENTS EPA 8010	TRPH SM 5520F	SEMI-VOLATILE HYDROCARBONS EPA 8270	TOTAL LEAD	S LUFT METALS	CAM 17 METALS			COMMENTS	LAB SAMPLE #
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RELINQUISHED BY:	-11		RECEIVED BY LABORATORY:		
Atul -	9119101	472 YO	Mail Kalamas	Glialni	1115
Durpo 1			Jula rodumne	117101	<u>,,,,</u>
SIGNATURE	DATE	TIME	SIGNATURE	DATE	TIME
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