PARSONS ENGINEERING SCIENCE, INC.

290 Elwood Davis Road, Suite 312 • Liverpool, New York 13088 • (315) 451-9560 • Fax (315) 451-9570

96 DECTION AL

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51103809

November 26, 1996

Ms. Susan Hugo Alameda County Department of Environmental Health 1131 Harbor Bay Parkway

Alameda, CA 94502

RE: Quarterly Status Report

Greyhound Terminal (Location No. 8934)

Oakland, California

Dear Ms. Hugo:

On behalf of Greyhound Lines, Inc. (Greyhound), Parsons Engineering Science, Inc. (Parsons ES) is pleased to present the October Quarterly Status Report for the Greyhound terminal in Oakland, California. The Quarterly Status Report provides the information specified in "Appendix A" of the "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" (August 1990). Greyhound has reviewed and approved the enclosed report, and agrees with the conclusions and recommendations provided in the report.

Monitoring activities and groundwater sampling were conducted on October 8, 1996. Table 1 summarizes fluid levels and other pertinent information. Three groundwater samples were collected and analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) (EPA Method 8020), total diesel petroleum hydrocarbons (TPH-D, Modified EPA Method 8015), and total gasoline petroleum hydrocarbons (TPH-G, Modified EPA Method 8015). Monitoring well locations are shown in Figure 1 of the Quarterly Status Report. Analytical results are summarized in Table 2.

During the October monitoring visit, no measurable free product was observed in any of the monitoring or recovery wells onsite. Recovery wells MW-1 and MW-5 remain inaccessible due to problems with the protective manways. This problem will be resolved shortly.

The next groundwater sampling event will be conducted in January 1997. The next quarterly status report will be prepared and submitted to your department on or before February 15, 1997. In the interim, Greyhound urgently requests that Alameda County review the Preliminary Risk Evaluation Report, originally submitted in November of 1993 to support a no further action decision on this site.

PARSONS ENGINEERING SCIENCE, INC.

Ms. Susan Hugo Alameda County Department of Environmental Health November 26, 1996 Page 2

If you have any questions or require additional information, please call us at (315) 451-9560.

Sincerely,

PARSONS ENGINEERING SCIENCE, INC.

Christopher R. Torrell Project Manager

CR7nell

A. Chappin

David L. Chaffin, R.G. California Registered Geologist (No. 4885)

DAN/DLC/rlc

Enclosure

cc: L. Hernandez, GLI, Dallas, TX
Kevin Graves, Regional Water Quality Control Board

OCTOBER 1996 QUARTERLY STATUS REPORT GREYHOUND TERMINAL OAKLAND, CALIFORNIA

Site Background:

A preliminary site investigation was completed by Engineering-Science, Inc. (ES) in January 1992. Five monitoring wells (ES-1 through ES-5 in Figure 1) were installed on site and sampled during the investigation. The Preliminary Site Investigation report was submitted to the Alameda County Department of Environmental Health (ACDEH) on January 27, 1992.

Based on the results of the preliminary investigation, a groundwater monitoring program was initiated by Greyhound in June 1992 to assess the impact of former UST operations on groundwater. The program includes monthly groundwater level measurements, quarterly groundwater sampling, and reporting.

Based on the presence of measurable thicknesses of free product discovered in four on site monitoring wells, Greyhound subsequently proposed the installation of an automated free product recovery system. Upon ACDEH approval in October 1992, Greyhound obtained the required permits and installed a recovery system on site during the week of November 9, 1992. A report detailing recovery system installation was submitted to ACDEH on December 18, 1992. The recovery system was placed in operation during the week of January 4, 1993 after discharge permit conditions were finalized with the East Bay Municipal Utility District (EBMUD).

In a letter to Greyhound dated October 23, 1992, ACDEH requested that Greyhound provide documentation regarding the underground fuel storage tank system (UST) removal, including disposal documentation. Greyhound subsequently prepared a Tank Closure Documentation Report for the facility. The report was submitted to ACDEH on December 15, 1992.

In July 1993, Greyhound implemented a Supplemental Site Assessment at the facility to define the full extent of contamination both on and off site. Six monitoring wells (ES-6 through ES-11 in Figure 1) were installed and sampled during the investigation. Results of the Supplemental Site Assessment indicated that the residual soil and groundwater contamination is limited to the former tank pit area on site. Greyhound presented these results to ACDEH in a meeting on September 1, 1993. At that time, ACDEH indicated that a risk assessment could be prepared to support "alternative points of compliance" or site-specific cleanup levels for this site. Greyhound submitted a Preliminary Risk Evaluation Report to ACDEH in October 1993. A Supplemental Site Assessment Report was submitted in November 1993.

During October 1995, the scope of the quarterly groundwater sampling program was reduced to consist of collecting and analyzing samples from three monitoring wells (ES-3, ES-4, and ES-6). Annual sampling of ES-7, ES-8, and ES-11 was also agreed to by both parties at that time. The reduction was discussed during an October 13, 1995 meeting between Greyhound and ACDEH and confirmed in an October 31, 1995 letter from Greyhound to ACDEH.

OCTOBER 1996 QUARTERLY STATUS REPORT (CONTINUED)

• Water level measurements from most recent sampling event:

Monitoring well data obtained on October 8, 1996 are presented in Table 1. Groundwater elevations determined from the water level measurements are shown in Figure 2. The elevations indicate that the groundwater flow direction across the site is generally to the southeast.

Water level measurements from previous monitoring visits:

Monitoring well data obtained during prior quarterly sampling events is presented in Attachment B. Free product thicknesses have been eliminated in the four onsite recovery wells (ES-1, ES-2, ES-5, and BC-1) since the product recovery system was activated in January 1993.

• Analytical results from most recent sampling event:

Analytical results from the groundwater samples collected in October 1996 are summarized in Table 2. The samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method 8020, for total diesel petroleum hydrocarbons (TPH-D) by Modified EPA Method 8015, and for total gasoline petroleum hydrocarbons (TPH-G) by Modified EPA Method 8015. Laboratory reports including chain-of-custody documentation, are included in Attachment A.

BTEX compounds were only detected in one of the three samples (ES-4). Benzene (110 µg/l), toluene (4.4 µg/l) ethylbenzene (42 µg/l), and xylenes (39 µg/l) were detected in the sample. TPH-G was also detected in the sample at a concentration of 0.86 mg/L. TPH-D was not detected in any of the three samples.

• Analytical results from previous sampling events:

A summary of the analytical results from previous groundwater sampling events is presented in Attachment C.

• Site map delineating contamination contours for soil and groundwater based on recent data:

Figure 3 shows the analytical results from the most recent groundwater sampling event.

Figure 4 shows the analytical results from soil samples collected during the preliminary site investigation (November 1991) and the supplemental site assessment (July 1993). The figure indicates that soil contamination is limited to the area near sample locations ES-1, ES-2, and ES-5.

OCTOBER 1996 QUARTERLY STATUS REPORT (CONTINUED)

 Estimates of the quantity of contamination remaining in soil and groundwater, and time for completing remediation:

Greyhound has not prepared an estimate of the remaining volume of residual soil contamination, based on the recommendation presented in the Supplemental Site Assessment Report that no soil remediation be conducted at the site.

Method of cleanup proposed or implemented to date:

In October 1992, Greyhound proposed a free product recovery system to remove free product discovered in four on site wells. A hydrocarbon recovery system was installed in November 1992 after receiving approval from Ms. Susan Hugo (ACDEH). The recovery system was activated during the week of January 4, 1993.

 Times and dates equipment was not operating, cause of shutdown, and a corrective action plan to insure similar shutdowns do not reoccur:

October 6 to October 21, 1993: System shutdown due to an air compressor malfunction.

November and December 1995: System shutdown to monitor hydrocarbon thicknesses.

March and April 1996 (4 weeks maximum): System shutdown due to an air compressor malfunction.

June and July 1996 (4 weeks maximum): System shutdown due to an electrical power supply problem.

The system is inspected monthly during monitoring visits by Parsons ES personnel.

• Method and location of disposal of the released hazardous substance and any contaminated soil, groundwater, or surface water:

To date, approximately 1,015 gallons of free product and contaminated groundwater have been recovered and properly disposed off site by Safety Kleen, Inc. and Evergreen Vacuum Services, State of California-certified waste haulers. No additional product has been recovered since the September 1994 monitoring period. In addition, 82,390 gallons of carbon-treated groundwater have been processed through the recovery system on site and discharged to the sanitary sewer under a permit issued by EBMUD.

OCTOBER 1996 QUARTERLY STATUS REPORT (CONTINUED)

• Manifest required for transport of hazardous substances:

Previously received disposal/transport manifests for diesel fuel and contaminated groundwater recovered from the site were included in Appendix A of the January 1993 Quarterly Status Report. Future manifests will be included in future quarterly status reports.

• Proposed continuing or next phase of investigation:

In November 1993, based on the results of the Supplemental Site Assessment and Preliminary Risk Evaluation, Greyhound proposed: (1) to continue free product recovery at the site; (2) to continue the groundwater monitoring program, including monthly water level measurements, quarterly groundwater sampling and analysis, and reporting; and (3) that site-specific cleanup levels be established for the site based on the non-attainment area for groundwater contamination.

During a second meeting between ACDEH, Greyhound and the Regional Water Quality Control Board (RWQCB) in October 1995, a more streamlined groundwater monitoring program was developed. Based on anticipated changes to existing regulations, Greyhound agreed to continue with the monitoring and recovery program until a no-further-action scenario without deed stipulations is achievable.

The next quarterly status report will be prepared and submitted to ACDEH on or before February 15, 1997. In the interim, Greyhound requests a review of the Preliminary Risk Evaluation originally submitted in November 1993. The data gathered since the risk evaluation was submitted indicate it may now be possible to achieve a no-further-action decision without deed restriction.

• Time schedules for the completion of the investigation of the site and remediation:

Since no measurable product continues to be detected in the recovery wells, Greyhound requests that a no-further-action scenario be considered based on the risk assessment previously submitted to ACDEH and analytical results obtained from the monitoring program.

Tank owner commitment letter:

The cover letter submitted with this report is intended to serve as the tank owner commitment letter.

TABLE 1

MONITORING WELL DATA SUMMARY
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA
October 8, 1996

Location	Elevation of T.O.C ¹ (Ft.)	Depth to Groundwater (Ft.)	Groundwater Elevation ² (Ft.)	Product Layer Thickness (Ft.)
ES-13	96.64	INACCESSIBL	.E	
ES-23	96.44	18.61	77.83	0
ES-3	96.96	18.98	77.98	0
ES-4	95.70	17.97	77.73	0
ES-53	95.85	INACCESSIBL	E	
ES-6	97.84	21.23	76.61	0
E\$7	96.40	19.37	77.03	0
ES-8	96.64	18.44	78.20	0
ES-9	95.78	17.19	78.59	0
ES-10	95.24	16.70	78.54	0
ES-11	95.92	18.29	77.63	0
BC-1 ^{3,4}	96.16	18.40	7 7.76	0
BC-24	96.32	18.40	77.92	0
BC-3 ⁴	96.20	18.10	78.10	0

Elevations of top of PVC casing measured with respect to on-site datum (97.50 feet, measured on steel grate for storm sewer near wash rack).

BC = Wells constructed by Brown and Caldwell, Inc., during during earlier phases of investigation.

² Groundwater elevation (Elevation of T.O.C. – depth to groundwater).

³ Recovery Wells.

⁴ Approximate elevation – well casings not vertical.

TABLE 2

GROUNDWATER ANALYTICAL RESULTS GREYHOUND TERMINAL, OAKLAND, CALIFORNIA October 8, 1996

Location	Date Collected	Parameter	Result	Detection Limit
ES-3	10/8/96	10/8/96 Benzene¹ Toluene¹ Ethylbenzene¹		0.5 ug/L 0.5 ug/L 0.5 ug/L
		Xylenes (total) ¹ TPH-D ² TPH-G ³	ND ND ND	0.5 ug/L 0.05 mg/L 0.05 mg/L
ES-4	10/8/96	Benzene ¹ Toluene ¹ Ethylbenzene ¹ Xylenes (total) ¹ TPH-D ²	110 4.4 42 39 ND	0.5 ug/L 0.5 ug/L 0.5 ug/L 0.5 ug/L 0.05 mg/L
ES-6	10/8/96	TPH-G ³ Benzene ¹ Toluene ¹	0.86 ND ND	0.05 mg/L 0.5 ug/L 0.5 ug/L
		Ethylbenzene ¹ Xylenes (total) ¹ TPH-D ² TPH-G ³	ND ND ND ND	0.5 ug/L 0.5 ug/L 0.05 mg/L 0.05 mg/L

Notes:

ND - Not detected above the practical quantitation limit.

¹ Analyzed by EPA Method 8020. Concentrations in ug/l.

² Analyzed by DHS/LUFT Method Modified EPA 8015 for Diesel. Concentrations in mg/l.

³ Analyzed by DHS/LUFT Method Modified EPA 8015 for Gasoline. Concentrations in mg/l.

TABLE 3

SOIL ANALYTICAL DATA SUMMARY
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA

Location Sample Depth	Date	Benzene ug/kg	Toluene ug/kg	Ethylbenzene ug/kg	Xylene ug/kg	Total BTEX ug/kg		TPH-G ³ mg/kg
ES-1 (16-18)	11/91	ND	3,000	3,400	22,000	28,400	ND	NA
ES-2 (16-18)	11/91	ND	27,000	28,000	150,000	205,000	ND	AM
ES-3 (18-19)	11/91	ND	ND	NĐ	ND	ND	ND	NA
ES-4 (16-16.5)	11/91	ND	ND	ND	ND	ND	ND	NA
ES-5 (15-17)	11/91	ND	80	65	330	475	160	NA
ES-6 (15-16.5)	7/93	ND	ND	ND	ND	ND	ND	ND
ES-7 (20-21.5)	7/93	ND	ND	ND	ND	ND	ND	ND
ES-8 (20-21.5)	7/93	ND	ND	ND	ND	ND	ND	ND
ES-9 (15-16.5)	7/93	ND	. ND	ND	ND	ND	ND	ND
ES-10 (20-21.5)	7/93	ND	ND	ND	ND	ND	ND	ND
ES-11 (20-21.5)	7/93	ND	ND	ND	ND	ND	ND	ND

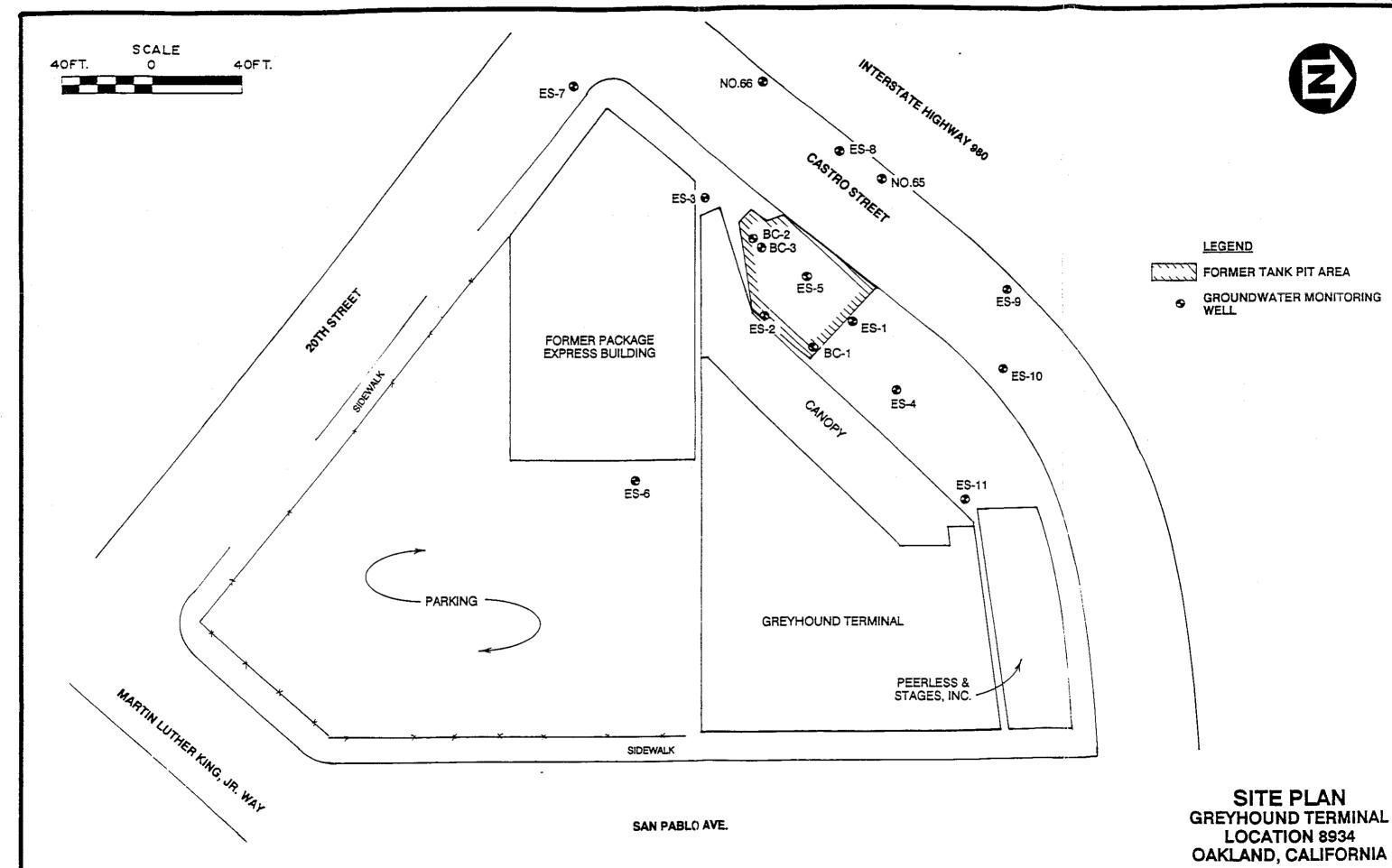
NA - Not analyzed.

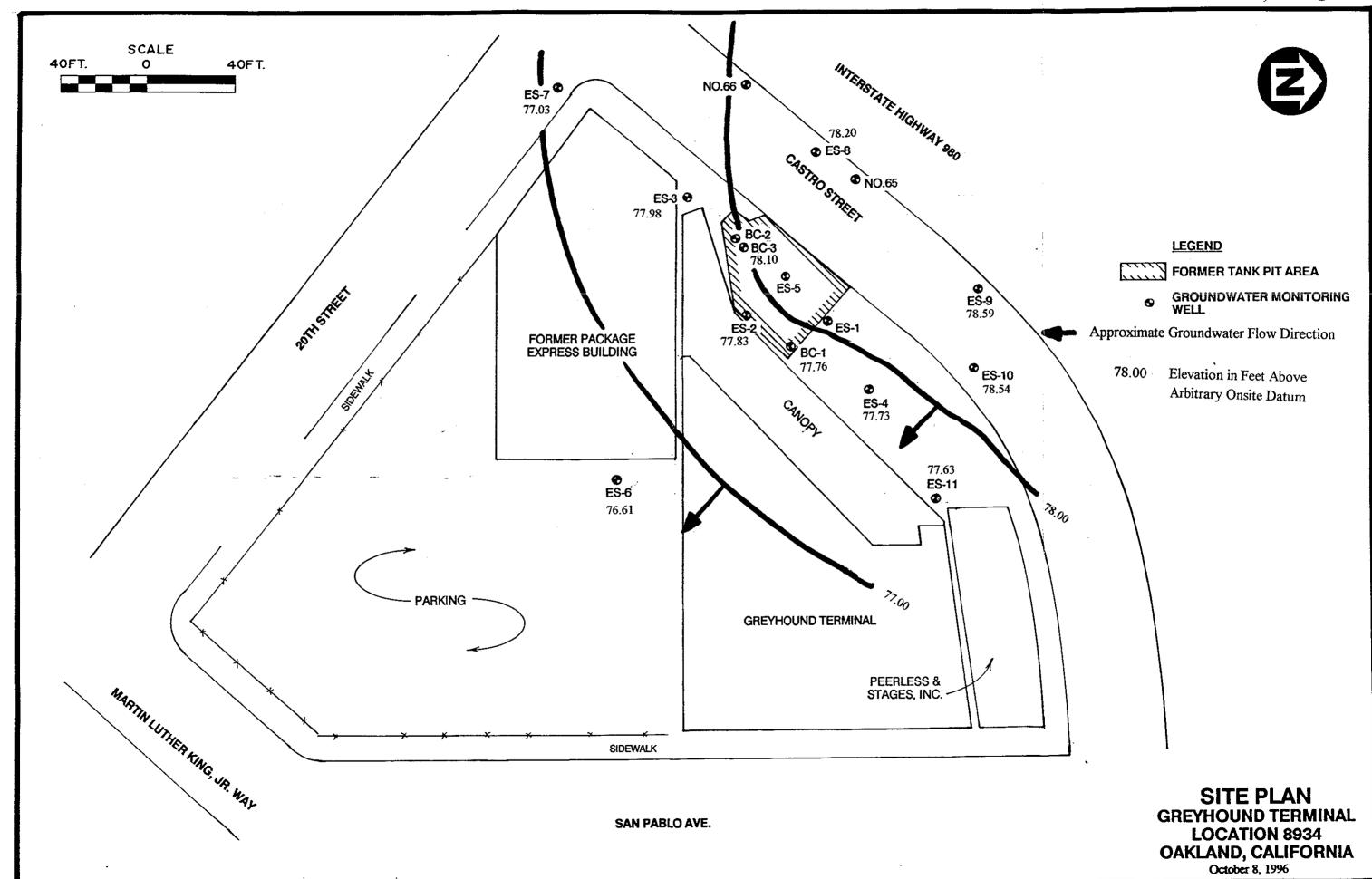
ND - Non-detect; sample analyzed but did not exceed Method Detection Limit.

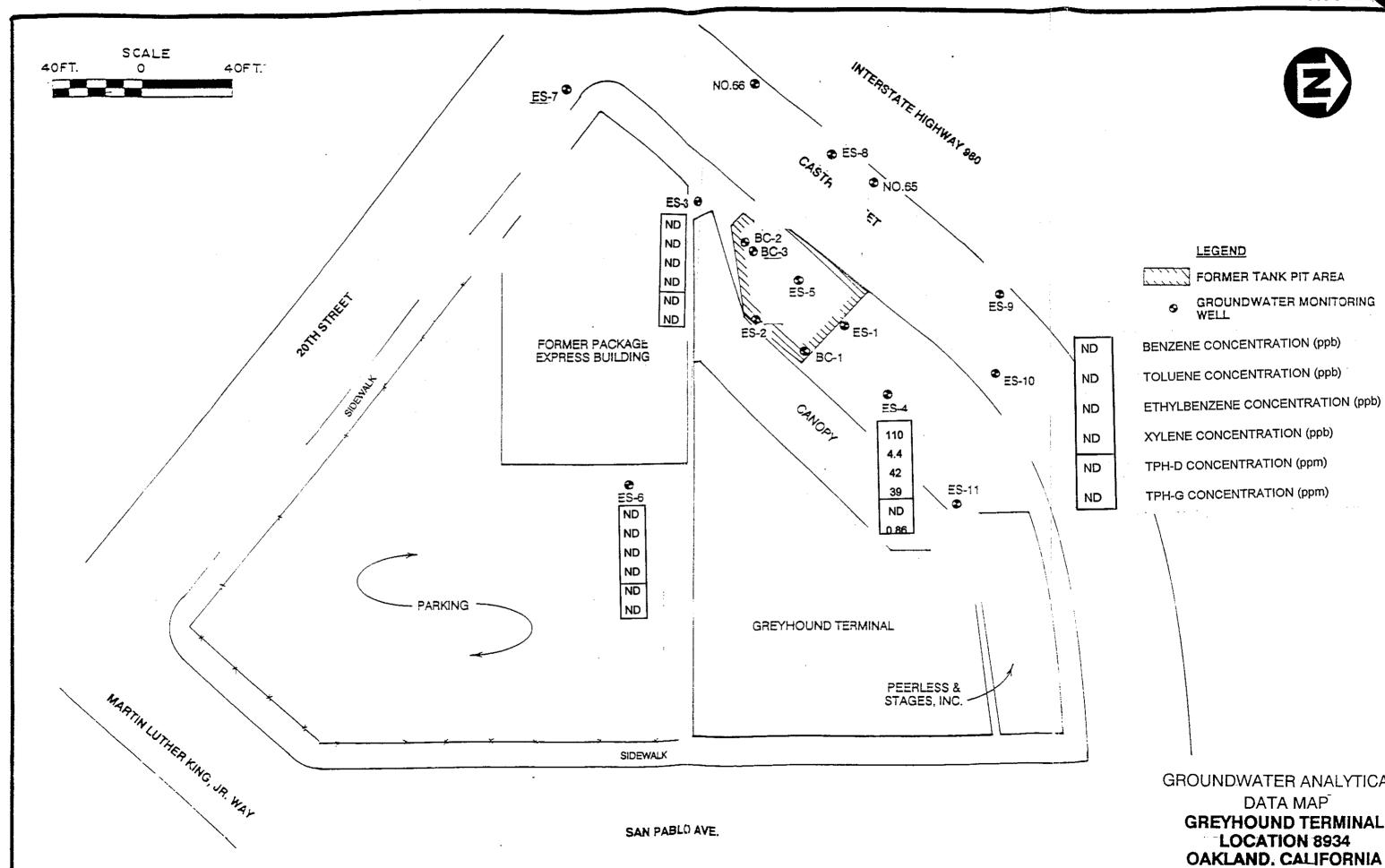
¹ Total BTEX = analyzed by EPA Method 8020. Results reported in ug/kg. Refer to analytical laboratory reports for method detection limits.

² TPH-D = Total Petroleum Hydrocarbons (TPH) for Diesel by EPA Method 3510/8015.
Results reported in mg/kg. Refer to analytical laboratory reports for method detection limits.

³ TPH-G = Total Petroleum Hydrocarbons (TPH) for Gasoline by EPA Method 3510/8015. Results reported in mg/kg. Refer to analytical laboratory reports for method detection limits.

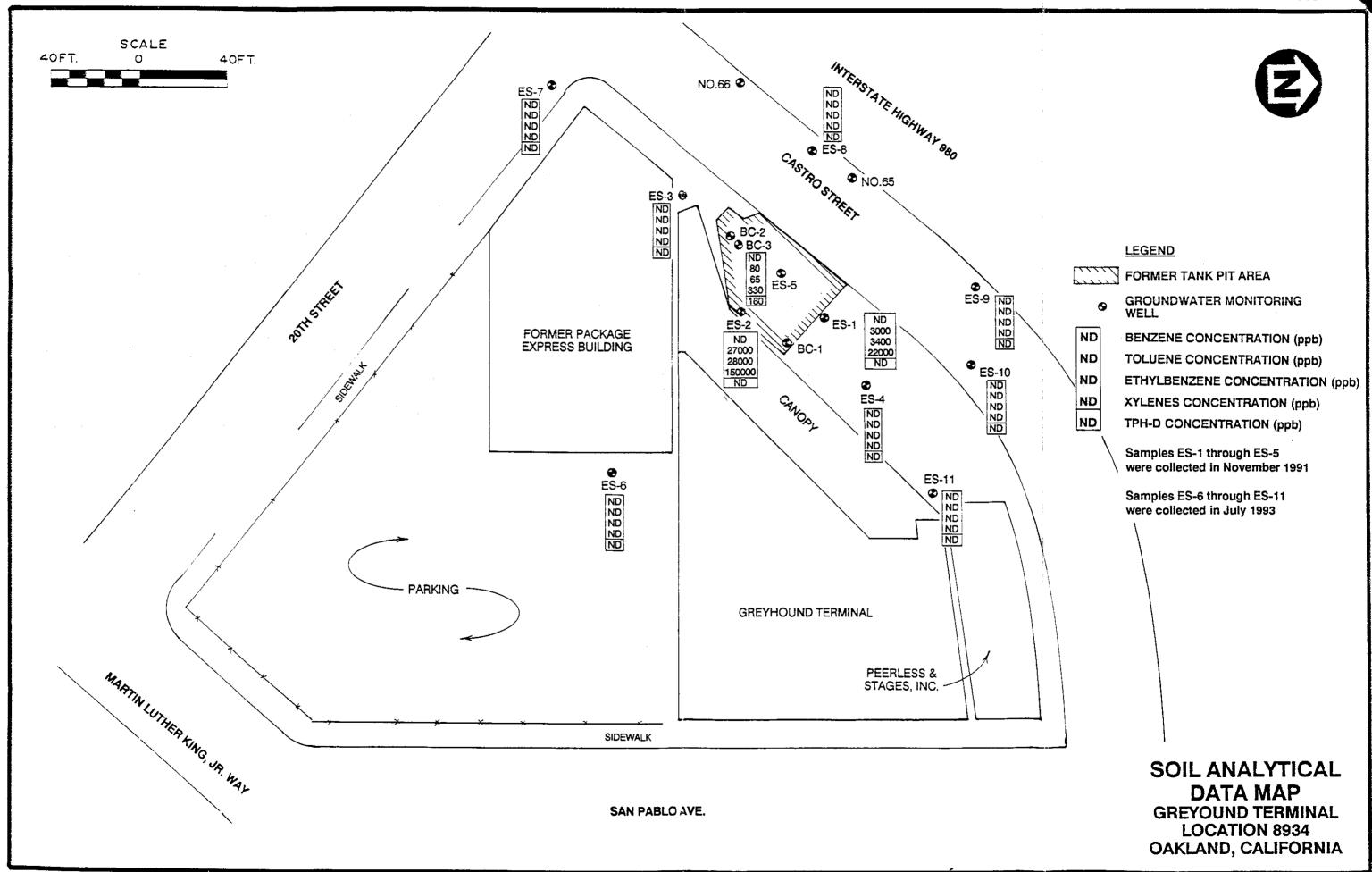




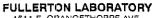


SY358 08

October 8, 1996



ATTACHMENT A ANALYTICAL DATA REPORTS





1511 E. ORANGETHORPE AVE. FULLERTON, CA 92831 PHONE. (714) 447-6868

SPL, INC. REPORT APPROVAL SHEET

WORK ORDER NUMBER: 96 - 10 - 110

Approved for release by:

Joel Grice, Laboratory Manager

Date: 10/22/46

Date: 10/22/46

Date: 10/22/46

FULLERTON LABORATORY

1511 E. ORANGETHORPE AVE. FULLERTON, CA 92831 PHONE: (714) 447-6868

DATE: 10/22/96

Certificate of Analysis No. F1-9610110-02

Parsons Engineering Science 1301 Marina Village Pkwy, 200

Alameda, CA 94501 ATTN: Mr. Neal Siler

PROJECT: Greyhound Lines

SITE: Oakland, CA MATRIX: WATER

SAMPLED BY: Parson **DATE SAMPLED:** 10/08/96 14:10:00

PROJECT NO:

SAMPLE ID: ES-3 DATE RECEIVED: 10/11/96

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Gasoline Range Organics	ND	50 P	ug/L
Surrogate	% Recovery		
4-Bromofluorobenzene	99		
1,4-Difluorobenzene Method Modified 8015A*** Analyzed by: JA Date: 10/17/96	112		
BENZENE	ND	0.5 P	μg/L
TOLUENE	ND		μg/L
ETHYLBENZENE	ND	0.5 P	μg/L
TOTAL XYLENE	ND	0.5 P	μ g/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		μg/L
Surrogate	% Recovery		
1,4-Difluorobenzene	99		
4-Bromofluorobenzene	93		
METHOD 8020A*** Analyzed by: JA			
Date: 10/17/96			
Total Petroleum Hydrocarbons-Diesel	ND	0.05 P	mg/L
Surrogate	% Recovery		
Hexacosane	105		

M8015 - Diesel Analyzed by: RIC

Date: 10/14/96 21:36:00

ND - Not detected.

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for Quality Assurance. SPL California License Number I-1078



1511 E. ORANGETHORPE AVE. FULLERTON, CA 92831 PHONE: (714) 447-6868

Certificate of Analysis No. F1-9610110-02

Parsons Engineering Science 1301 Marina Village Pkwy, 200

Alameda, CA 94501 ATTN: Mr. Neal Siler

DATE: 10/22/96

PROJECT: Greyhound Lines

SITE: Oakland, CA

SAMPLED BY: Parson SAMPLE ID: ES-3

PROJECT NO:

MATRIX: WATER

DATE SAMPLED: 10/08/96 14:10:00

DATE RECEIVED: 10/11/96

ANALYTICAL DATA

PARAMETER

RESULTS

DETECTION

LIMIT

UNITS

Liquid-liquid extraction

METHOD 3510 *** Analyzed by: RTC

Date: 10/14/96

10/14/96

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for Quality Assurance. SPL California License Number I-1078



1611 E. OR'ANGETHORPE AVE. FULLERTON, CA 92831 PHONE: (714) 447-6868

DATE: 10/22/96

Certificate of Analysis No. F1-9610110-03

Parsons Engineering Science 1301 Marina Village Pkwy, 200

Alameda, CA 94501 ATTN: Mr. Neal Siler

PROJECT: Greyhound Lines PROJECT NO:

SITE: Oakland, CA MATRIX: WATER

SAMPLED BY: Parson **DATE SAMPLED:** 10/08/96 15:40:00

SAMPLE ID: ES-4 DATE RECEIVED: 10/11/96

PARAMETER ANALYTICAL	DATA RESULTS	DETECTION LIMIT	UNITS
Gasoline Range Organics	860	50 P	ug/L
Surrogate 4-Bromofluorobenzene 1,4-Difluorobenzene Method Modified 8015A*** Analyzed by: JA Date: 10/17/96	% Recovery 124 317 «		
BENZENE TOLUENE ETHYLBENZENE TOTAL XYLENE TOTAL VOLATILE AROMATIC HYDROCARBONS	110 4.4 42 39 195.4	0.5 P 0.5 P 0.5 P 0.5 P	μg/L μg/L μg/L μg/L
Surrogate 1,4-Difluorobenzene 4-Bromofluorobenzene METHOD 8020A*** Analyzed by: JA Date: 10/17/96	% Recovery 211 « 117		
Total Petroleum Hydrocarbons-Diesel	ND	0.05 P	mg/L
Surrogate Hexacosane M8015 - Diesel Analyzed by: RIC Date: 10/14/96 22:15:00	% Recovery 102		

⁽P) - Practical Quantitation Limit « - Recovery beyond control limits. ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for Quality Assurance. SPL California License Number I-1078



PHONE: (714) 447-6868

Certificate of Analysis No. F1-9610110-03

Parsons Engineering Science 1301 Marina Village Pkwy, 200

Alameda, CA 94501 ATTN: Mr. Neal Siler

DATE: 10/22/96

PROJECT: Greyhound Lines

SITE: Oakland, CA

SAMPLED BY: Parson

SAMPLE ID: ES-4

PROJECT NO:

MATRIX: WATER

DATE SAMPLED: 10/08/96 15:40:00

DATE RECEIVED: 10/11/96

ANALYTICAL DATA

PARAMETER

RESULTS

10/14/96

DETECTION

LIMIT

UNITS

Liquid-liquid extraction

METHOD 3510 *** Analyzed by: RTC

Date: 10/14/96

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

FULLERTON LABORATORY

1511 E. ORANGETHORPE AVE. FULLERTON, CA 92831 PHONE: (714) 447-6868

Certificate of Analysis No. F1-9610110-01

Parsons Engineering Science 1301 Marina Village Pkwy, 200

Alameda, CA 94501 ATTN: Mr. Neal Siler

DATE: 10/22/96

DATE SAMPLED: 10/08/96 11:45:00

PROJECT: Greyhound Lines

SITE: Oakland, CA SAMPLED BY: Parson

SAMPLE ID: ES-6

MATRIX: WATER

DATE RECEIVED: 10/11/96

PROJECT NO:

ANALYTICAL	DATA		
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Gasoline Range Organics	ND	50 P	ug/L
Surrogate 4-Bromofluorobenzene 1,4-Difluorobenzene Method Modified 8015A*** Analyzed by: JA Date: 10/17/96	% Recovery 99 108		
BENZENE TOLUENE ETHYLBENZENE TOTAL XYLENE TOTAL VOLATILE AROMATIC HYDROCARBONS	ND ND ND ND ND	0.5 P 0.5 P 0.5 P 0.5 P	μg/L μg/L μg/L μg/L μg/L
Surrogate 1,4-Difluorobenzene 4-Bromofluorobenzene METHOD 8020A*** Analyzed by: JA Date: 10/17/96	% Recovery 97 91		
Total Petroleum Hydrocarbons-Diesel	ND	0.05 P	mg/L
Surrogate Hexacosane M8015 - Diesel Analyzed by: RIC Date: 10/14/96 20:58:00	% Recovery 102		

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA **Ref: Standard Methods for Examination of Water & Wastewater, 18th ed. ***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for Quality Assurance. SPL California License Number I-1078

⁽P) - Practical Quantitation Limit



FULLERTON LABORATORY

1511 E. ORANGETHORPE AVE. FULLERTON, CA 92831 PHONE: (714) 447-6868

DATE: 10/22/96

Certificate of Analysis No. F1-9610110-01

Parsons Engineering Science 1301 Marina Village Pkwy, 200

Alameda, CA 94501 ATTN: Mr. Neal Siler

PROJECT: Greyhound Lines

SITE: Oakland, CA

SAMPLED BY: Parson SAMPLE ID: ES-6

PROJECT NO:

MATRIX: WATER

DATE SAMPLED: 10/08/96 11:45:00

DATE RECEIVED: 10/11/96

ANALYTICAL DATA

PARAMETER RESULTS DETECTION UNITS

Liquid-liquid extraction

METHOD 3510 *** Analyzed by: RTC

Date: 10/14/96

10/14/96

LIMIT

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA

**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.

***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for Quality Assurance. SPL California License Number I-1078

QUALITY CONTROL DOCUMENTATION



SPL BATCH QUALITY CONTROL REPORT ** METHOD 8020***

FULLERTON LABORATORY

1511 E. ORANGETHORPE AVE. FULLERTON, CA 92831 PHONE: (714) 447-6868

Batch Id: GC_3961016234900

Units: ug/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range		
MTBE	ND	200	240	120	80 - 120		
Benzene	ND	50	52	104	80 - 120		
Toluene	ND	50	52	104	80 - 120		
EthylBenzene	ND	50	51	102	80 - 120		
O Xylene	ND	50	52	104	80 - 120		
M & P Xylene	ND	100	97	97.0	80 - 120		

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results	Spike Added	Matrix Result	Spike	Matrix Duplio	Recovery	MS/MSD Relative % Difference	RPD	Limits(***) (Advisory)
	<2>	<3>	<1>	<4>	<1>	<5>		Max.	Recovery Range
BENZENE	ИД	20.0	16.7	83.5	17.9	89.5	6.94	20	75 - 125
TOLUENE	ND	20.0	16.6	83.0	17.9	89.5	7.54	25	75 - 130
O XYLENE	ND.	20.0	16.5	82.5	18.1	90.5	9.25	25	75 - 130

Analyst: JA

Sequence Date: 10/17/96

SPL ID of sample spiked: 9610110-01A

Sample File ID: GC3B272.TX0

Method Blank File ID:

Blank Spike File ID: GC3B262.TX0

Matrix Spike File ID: GC3B275.TX0

Matrix Spike Duplicate File ID: GC3B276.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = | (<4> - <5>) / [(<4> + <5>) x 0.5] x 100

(**) = Source:

(***) = Source:

SAMPLES IN BATCH (SPL ID):

9610110-01A 9610110-02A 9610110-03A



SPL BATCH QUALITY CONTROL REPORT ** Method Modified 8015A***

FULLERTON LABORATORY

1511 E. ORANGETHORPE AVE. FULLERTON, CA 92831 PHONE: (714) 447-6868

Batch Id: GC_3961016234901

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Range Organics	ND	1000	945	94.5	70 - 125

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results	Spike Added	Matrix	Spike	Matrix Duplic	Spike	MS/MSD Relative %	-	imits(***) (Advisory)
	<2>	<3>	Result <1>	Recovery <4>	Result <1>	Recovery <5>	Difference	RPD Max.	Recovery Range
GASOLINE RANGE ORGANICS	ND	1000	1160	116	1160	116	0	21	54 ~ 138

Analyst: JA

Sequence Date: 10/17/96

SPL ID of sample spiked: 9610110-01A

Sample File ID: GC3A272.TX0

Method Blank File ID:

Blank Spike File ID: GC3A264.TX0 Matrix Spike File ID: GC3A277.TX0

Matrix Spike Duplicate File ID: GC3A278.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

Recovery = ((<1> - <2>) / <3>) x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5>)| / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL Historical Data
(***) = Source: SPL Historical Data

SAMPLES IN BATCH (SPL ID):

9610110-01A 9610110-02A 9610110-03A



mg/L

SPL BATCH QUALITY CONTROL REPORT **
M8015 - Diesel

FULLERTON LABORATORY

1511 E. ORANGETHORPE AVE. FULLERTON, CA 92831 PHONE: (714) 447-6868

Batch Id: GC_6961014174600

LABORATORY CONTROL SAMPLE

SPIKE	Method Blank Result <2>	Spike Added <3>	Blank Result <1>	Spike Recovery	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons-Die	ND	2.0	1.8	90.0	70 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results	Spike Added	Matrix	Spike	Matrix Dupli	Spike	MS/MSD Relative %		Simits(***) (Advisory)
	<2>	<3>	Result <1>	Recovery <4>	Result	Recovery <5>	Difference	RPD Max.	Recovery Range
PETROLEUM HYDROCARBONS-DIE	ND	2.0	2.0	100	1.8	90.0	10.5	20	65 - 135

Analyst: RIC

Units:

Sequence Date: 10/14/96

SPL ID of sample spiked: 9610106-10C

Sample File ID: GC6B624.TX0

Method Blank File ID:

Blank Spike File ID: GC6B812.TX0

Matrix Spike File ID: GC6B625.TX0

Matrix Spike Duplicate File ID: GC6B626.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS * Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5>)|/[(<4> + <5>)| x 0.5]| x 100

(**) = Source:

(***) = Source:

SAMPLES IN BATCH (SPL ID) :

 9610110-01B
 9610109-09B
 9610109-10B
 9610109-11B

 9610106-06C
 9610106-07C
 9610106-08C
 9610106-10C

 9610110-02B
 9610109-01B
 9610109-02B
 9610110-03B

 9610109-03B
 9610109-04B
 9610109-05B
 9610109-06B

9610109-07B 9610109-08B

CHAIN OF CUSTODY AND SAMPLE RECEIPT CHECKLIST

	SPL, Inc.						SPL Workorder No:			C- 02330						
13.5	Analysis	Request &	c Chai	n of C	ustod	y Reco	ord			101	IIC	\bigcirc	j	page _	l of	
Client Name: Greyhound			· · · · · · · · · · · · · · · · · · ·	bottle	size	pres.			Requested Analysis			is				
Address/Phone: Pars	ns ES (570)7	19-0100		glass	vial								2			
Client Contact: Alan P	eel		S=soil O=other:	A=amber V=vial	4=40z 40=vial 16=160z	2=HNO3 O=other:	ners	7	3				Panie	~		
Project Name:			= soi	=am =via	4=4oz 4 16=16oz	H.H.	ntai	Jaso	1			12	ے	ا و	ļ	
Project Number:			1	₹ >	4=4		ပ္ပိ	સુ	3	` <i>\</i>		#	ş	3		
Project Location: Greybour	d Oakland		=water =sludge	stic Ss	1	1=HCl 3=H2SO4	Number of Containers	Z	<u></u>	870		2	5	,		
Invoice To: Oreighoun		ourtin)		P=plastic G=glass	=1 liter =8oz	=HCI =H2S	qui	Md	h d.	8		6	3	143		
SAMPLE ID	DATE TIMI	comp grab	≥ !2	4 5		3 - 8	ź	Τ_	\	· · · · · · · · · · · · · · · · · · ·))	~		
MW-6 E5-6	10/4/96 (145		W	AV	1,40	<u>- 1</u>	4	X	X	X		\searrow				
n w 3 ES-3	1410					1		X	X	\times		\times				
MW-4 ES-4	₩ 154	0		1/1	1	11		X	X	X		X				
						, ,										
												_				
			 							· · · · · · · · · · · · · · · · · · ·						
								<u></u>								
Client/Consultant Remarks:			Laborate	ory remark	cs:	<u> </u>	<u> </u>	1	<u>!</u>			<u></u>	Intact	?	Υ	I N
													Temp		_	•
Requested TAT	Special Reporting Requir	ements Fax	Results		Raw Dat	ta 🔲	Special	Detection	on Limits	(specify	·):			PM revi	iew (init	ial):
	Standard QC	Leve	13 QC		Level 4 (oc 🔲										
24hr 🗍 72hr 🗍	1. Relinquished by Samp	ler:			date /3 /10	191	time		2. Rece	ived by:	1 F	eder	k)			
48hr 🔲 Standard 🔀	3. Relinquished by:				date	112	time		4. Rece	ived by:						
Other .	5. Relinquished by:			-	date	/	time		6. Kece	Ived by I	aborato	īV:				
				>	16/11	196	1/2	0	رُ ا	30	کرز	\leq				
8880 Interchange Drive,	Houston, TX 77054	(713) 660-0	901			500 A	mbassa	dor C	affery F	arkwa	y, Scot	t , LA 7	70583	(318)	237-47	775
459 Hughes Drive, Traverse City, MI 49684 (616) 947-5777																

SPL FULLERTON ENVIRONMENTAL LABORATORY SAMPLE LOGIN CHECKLIST

WORKORDER#:	
DATE: (0/11/90 TIME: 11	20
	YES NO
L. CHAIN OF CUSTODY FORM PRESENT;	Y
2. CHAIN OF CUSTODY PROPERLY COMPLETED:	X
3. CUSTODY SEALS ON SHIPPING CONTAINER:	Υ
4. IF YES, ARE SEALS INTACT:	1
5. ALL SAMPLES LABELED / TAGGED CORRECTLY:	
. SAMPLES ARRIVED INTACT:	X
. SAMPLES ARE PROPERLY CHILLED (2-6°):	X
remperature of samples upon arrival:	°C
HETHOD OF SAMPLE DELIVERY: 54	
SPL DELIVERY: 'LIENT DELIVERY:	
EED-EX DELIVERY: 2689701416 PS-DELIVERY:	
HS-DELIVERY: OHL DELIVERY: -SPEED:	
ALL SAMPLES WILL BE DISPOSED 3θ days after r inless otherwise specified by client.	
$\mathcal{A}(0)$	0/11/96

ATTACHMENT B PRIOR MONITORING WELL DATA

STATE: CA

FACILITY TYPE: TERMINAL

DEPTH TO DEPTH TO PRODUCT LIQUID (ft) WATER (ft) THICKNES Well ID Date THICKNESS (ft)

Well ID	Date	LIQUID (ft)	WATER (ft)	THICKNESS (ft)
DC 001	7/07/92	10 55	20 66	7 77
BC-001 BC-001	8/04/92	19.55 18.47	20.66 20.90	1.11 2.43
BC-001	8/31/92	18.68	20.90	2.43
BC-001	10/06/92	18.82	21.14	2.34
BC-001	11/06/92	18.24	20.69	2.45
BC-001	1/07/93	19.60	21.76	2.16
BC-001	4/06/93	18.26	18.26	0.00
BC-001	7/03/93	19.05	19.15	.10
BC-001	8/04/93	19.30	19.40	.10
BC-001	9/01/93	19.23	19.32	.09
BC-001	10/07/93	19.25	19.43	.18
BC-001	11/02/93	19.42	19.61	.19
BC-001	12/06/93	19.31	19.53	.22
BC-001	1/05/94	19.25	19.42	.17
BC-001	2/02/94	19.30	19.50	.20
BC-001 BC-001	3/02/94 4/07/94	18.40 18.10	18.60 18.20	.20
BC-001	5/05/94	18.65	18.84	.10 .19
BC-001	6/07/94	18.25	18.52	.27
BC-001	7/13/94	18.70	18.70	0.00
BC-001	8/03/94	18.40	18.40	0.00
BC-001	9/14/94	18.72	18.73	.01
BC-001	10/06/94	18.58	18.58	0.00
BC-001	11/02/94	18.81	18.82	.01
BC-001	12/07/94	17.93	17.94	.01
BC-001	1/13/95	18.58	18.58	0.00
BC-001	2/14/95	16.76	16.80	.04
BC-001	3/07/95	17.08	17.08	0.00
BC-001 BC-001	4/11/95 5/09/95	16.55 16.99	16.55	0.00
BC-001	6/09/95	17.38	17.00 17.39	.01 .01
BC-001	7/06/95	17.64	17.64	0.00
BC-001	8/10/95	17.89	17.89	0.00
BC-001	9/07/95	17.96	17.96	0.00
BC-001	10/03/95	18.23	18.23	0.00
BC-001	10/05/95	18.23	18.23	0.00
BC-001	11/02/95	18.02	18.02	0.00
BC-001	12/07/95	18.64	18.64	0.00
BC-001	1/03/96	18.36	18.36	0.00
BC-001	2/06/96	17.43	17.43	0.00
BC-001	3/12/96	16.85	16.85	0.00
BC-001	5/07/96	17.45	17.45	0.00
BC-001 BC-001	6/05/96 9/05/96	17.46 18.16	17.46 18.16	0.00
BC-001	10/08/96	18.40	18.40	0.00 0.00
BC-001	10/08/90	10.40	10.40	0.00
BC-002	7/07/92	16.89	16.89	0.00
BC-002	8/04/92	18.46	18.46	0.00
BC-002	8/31/92	18.89	18.89	0.00

FACILITY NO.: FACILITY NAME: 8934 OAKLAND

CA

STATE: FACILITY TYPE: TERMINAL

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
BC-002	10/06/92 11/06/92 1/07/93 4/06/93 7/03/93 8/04/93 9/01/93 10/07/93 11/02/93 12/06/93 1/05/94 2/02/94 5/05/94 6/07/94 7/13/94 8/03/94 9/14/95 3/07/95 4/11/95 5/09/95 7/06/95 7/06/95 10/03/95 10/03/95 11/02/96 4/09/96 5/07/96 6/05/96 7/09/96 5/07/96 6/05/96 7/09/96 10/08/96	18.50 15.98 13.50 15.20 17.75 18.48 19.02 18.87 16.42 17.70 17.10 18.36 17.30 17.70 15.51 16.88 16.88 17.55 18.03 18.24 18.36 17.86 16.31 16.50 17.70 17.10 18.36 17.30 17.30 17.30 17.30 18.36 17.30 18.36 17.30 18.36 17.36 18.36 18.36 17.36 18.36	18.50 15.98 13.50 15.20 17.75 18.10 18.48 19.02 18.76 16.42 17.30 17.70 18.36 17.10 18.36 17.55 16.88 16.88 16.88 17.55 18.24 18.36 17.86 18.36 17.50 17.10 18.36 17.30 17.10 18.40 18.40	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
BC-003 BC-003 BC-003 BC-003 BC-003 BC-003 BC-003 BC-003 BC-003 BC-003 BC-003	7/07/92 8/04/92 8/31/92 10/06/92 11/06/92 1/07/93 4/06/93 7/03/93 8/04/93 9/01/93 10/07/93 11/02/93	16.68 19.24 19.10 18.93 16.81 16.55 15.44 16.81 18.82 18.40 18.58 18.53	16.68 19.24 19.10 18.93 16.81 16.55 15.44 16.81 18.82 18.40 18.58 18.53	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0

FACILITY NO.: FACILITY NAME: STATE: FACILITY TYPE: 8934 OAKLAND

CA

TERMINAL

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
BC-003 BC	12/06/93 1/05/94 2/02/94 3/02/94 4/07/94 5/05/94 6/07/94 7/13/94 8/03/94 9/14/94 10/06/94 11/02/94 12/07/94 1/13/95 2/14/95 3/07/95 4/11/95 5/09/95 6/09/95 7/06/95 8/10/95 9/07/95 10/03/95	18.67 17.51 16.40 15.00 17.70 17.90 17.34 18.36 18.31 18.58 18.61 16.29 15.40 15.86 16.90 16.87 17.80 17.95 17.95 17.95 17.95 17.95 17.95 17.95 17.95 17.95 17.95 17.95 17.95	18.67 17.51 16.40 15.00 17.70 17.90 17.34 18.10 18.36 18.58 18.61 16.29 15.40 15.90 16.87 17.80 17.95	0.00 0.00
ES-001 ES-001 ES-001 ES-001 ES-001 ES-001 ES-001 ES-001 ES-001 ES-001 ES-001 ES-001 ES-001	6/16/92 7/07/92 8/04/92 8/31/92 10/06/92 11/06/92 1/07/93 4/06/93 7/03/93 8/04/93 9/01/93 10/07/93 11/02/93 12/06/93 1/05/94 2/02/94	20.18 18.60 18.80 18.96 19.08 18.52 20.25 17.08 18.68 18.85 18.90 19.02 19.02 19.15 18.96 18.92	23.78 18.60 18.81 18.97 19.10 18.53 20.26 17.88 18.68 18.90 19.03 19.03 19.20 19.15 18.96 18.92	3.60 0.00 .01 .01 .02 .01 .01 .80 0.00 0.00 0.00 0.00 0.00 0.

STATE: CA

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
ES-001 ES-001	5/05/94 6/07/94 7/13/94 8/03/94 9/14/94 10/06/94 11/02/94 12/07/94 1/13/95 2/14/95 3/07/95 4/11/95 5/09/95 6/09/95 7/06/95 8/10/95 9/07/95 10/03/95 11/02/95 12/07/95 1/03/96	18.39 18.39 17.70 18.39 16.44 16.74 16.25 16.66 17.15 17.28 17.60 17.79 18.01 18.01 18.00 18.00 18.39 18.04	18.08 18.68 18.02 18.21 18.08 18.48 18.43 18.43 17.70 18.43 16.45 16.74 16.25 16.66 17.16 17.28 17.79 18.01 18.00 18.40 18.00 18.40 18.40 18.40	.17 .18 .14 .17 0.00 0.00 0.02 .04 0.00 0.00 0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002	7/07/92 8/04/92 8/31/92	18.63 19.62 19.17 19.29 19.41 18.84 20.05 18.20 19.31 19.15 19.50 19.57 19.60 19.71 19.57 19.60 19.71 19.57 19.60 19.71	18.64 19.62 19.76 19.90 20.00 19.44 20.40 18.31 19.32 19.18 19.59 19.60 19.61 19.74 19.55 19.50 19.19 18.79 18.79 18.72	.01 0.00 .59 .61 .59 .60 .35 .11 .01 .03 .09 .03 .01 .03 .04 .05 .50 .09 .02 0.00 0.00

STATE: CA

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002 ES-002	12/07/94 1/13/95 2/14/95 3/07/95 4/11/95 5/09/95 6/09/95 7/06/95 8/10/95 9/07/95 10/03/95	18.86 16.92 17.25 16.71 17.15 17.60 17.78 18.29 18.48 18.45 18.62 18.85 18.55 17.60 17.08 17.18 17.66 17.66 17.66 18.02	19.14 18.86 19.91 18.14 18.86 16.92 17.25 16.71 17.61 17.79 18.10 18.29 18.45 18.48 18.65 18.90 18.54 17.66 17.08 17.66 17.66 18.39	.04 0.00 .94 0.00 0.00 0.00 0.00 0.00 0.
	6/16/92 7/07/92 8/04/92 8/31/92 10/06/92 11/06/92 11/06/93 4/06/93 7/03/93 8/04/93 9/01/93 10/07/93 11/02/93 12/06/93 1/05/94 2/02/94 4/07/94 5/05/94 6/07/94 7/13/94 8/03/94 9/14/94 10/06/94	19.41 19.52 19.68 19.80 19.96 18.84 19.20 15.92 18.12 19.36 19.62 19.70 19.68 19.52 19.30 18.68 19.52 19.30 18.78 19.30	19.41 19.52 19.68 19.80 19.84 19.20 15.92 18.12 19.36 19.62 19.68 19.52 19.30 18.68 19.52 19.30 18.68 19.00 18.78 19.84 19.84	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0

STATE: CA

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003 ES-003	11/02/94 12/07/94 1/13/95 2/14/95 3/07/95 4/11/95 5/09/95 6/09/95 7/06/95 8/10/95 9/07/95 10/03/95 10/05/95 11/02/95 12/07/95 12/07/95 1/03/96 4/09/96 5/07/96 6/05/96 7/09/96 9/05/96	19.37 18.44 17.35 17.22 17.52 16.95 17.34 17.87 18.07 18.40 18.59 18.76 18.76 18.76 19.19 17.55 17.65 17.65 17.94 17.94 18.33 18.63	19.37 18.44 17.35 17.22 17.52 16.95 17.87 18.40 18.59 18.76 18.76 18.96 19.15 17.85 17.65 17.94 17.94 18.33 15.63	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
ES-004 ES-004	6/16/92 7/07/92 8/04/92 8/31/92 10/06/92 11/06/92 1/07/93 4/06/93 7/03/93 8/04/93 9/01/93 10/07/93 11/02/93 12/06/93 1/05/94 2/02/94 3/02/94 4/07/94 5/05/94 6/07/94 7/13/94 8/03/94 9/14/94 10/06/94 11/02/94 12/07/94	18.63 18.51 18.66 18.79 18.92 18.94 18.76 18.08 18.16 18.46 18.62 18.74 18.72 18.55 18.42 17.86 17.86 17.94 18.13 17.94 18.13 17.94 18.13 17.94 18.13 17.94 18.13 17.94 18.13 17.94 18.13 17.94	18.98 18.51 18.66 18.79 18.94 18.76 17.26 18.08 18.16 18.46 18.62 18.74 18.72 18.55 18.42 17.86 18.80 17.86 17.94 18.13 17.94 18.13 17.94 18.13 17.56	.35 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0

STATE: CA

Well ID		DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
ES-004 ES-004 ES-004 ES-004	9/07/95 10/03/95 10/05/95 11/02/95 12/07/95	16.14 16.57 17.02 17.19 17.84 17.88 17.84 18.02 18.23 17.87 17.02 16.54 16.76 16.17	16.77 16.37 16.66 16.14 16.57 17.02 17.19 17.84 17.84 17.84 17.84 18.02 18.23 17.87 17.02 16.54 16.76 16.17 17.05 17.37	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
ES-005 ES-005 ES-005 ES-005 ES-005 ES-005 ES-005 ES-005 ES-005	7/07/92 8/04/92 8/31/92 10/06/92 11/06/92 1/05/93 1/07/93 4/06/93 7/03/93 8/04/93 9/01/93	20.23 18.16 18.24 18.24 17.60 18.42 19.35 17.28 19.50 18.61	20.40 20.23 20.43 20.80 21.37 20.92 19.75 22.00 17.28 19.50 18.61 18.80 19.33 19.45 19.25 19.98 18.30 18.30 18.30 18.30 18.30 18.42 18.42 18.42 18.42 18.42 18.42 18.42 18.42 18.42 18.45 18.45 18.45 18.42 18.42 18.42 18.45 18.42 18.42 18.45 18.45 18.45 18.42 18.42 18.42 18.42 18.45 18.45 18.42 18.42 18.42 18.43 18.45 18.42 18.42 18.42 18.42 18.42 18.42 18.42 18.43 18.43 18.42 18.42 18.42 18.42 18.43 18.42 18.45 18	2.00 0.00 2.27 2.56 3.13 3.32 1.33 2.65 0.00 0.00 0.00 0.01 .68 .54 .47 1.80 .23 .01 .02 .01 0.00 0

STATE: CA

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
ES-005 ES-005 ES-005 ES-005 ES-005 ES-005 ES-005	3/07/95 4/11/95 5/09/95 6/09/95 7/06/95 8/10/95 9/07/95 10/03/95 11/02/95 12/07/95 1/03/96 2/06/96 3/12/96 4/09/96 5/07/96 6/05/96 7/09/96	17.09 17.44 17.61 18.74 18.74 17.98 18.21 17.89 16.76 16.36 16.70	16.53 16.00 16.45 16.90 17.09 17.44 17.61 18.74 17.98 18.22 17.89 16.76 16.36 16.70 16.95 16.95	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
00066666666666666666666666666666666666	1/05/93 9/01/93 10/07/93 11/02/93 12/06/93 2/02/94 4/07/94 5/05/94 6/07/94 7/13/94 8/03/94 9/14/94 10/06/94 11/02/94 12/07/94 12/07/94 1/13/95 3/07/95 4/11/95 5/09/95 5/09/95 10/03/95 10/03/95 10/03/95 11/02/95 12/07/95 12/07/95 1/03/96 2/06/96	21.76 21.94 21.81 21.91 21.90 21.74 21.10 21.30 21.16 21.02 21.40 21.58 21.52 21.58 21.64 20.94 20.25 19.82 20.06 19.56 97.84 20.37 20.55 20.81 20.94 21.14 21.14 21.14 21.31 21.48 21.52	21.76 21.94 21.81 21.91 21.74 21.10 21.30 21.16 21.02 21.40 21.58 21.52 21.58 21.52 21.58 21.52 21.58 21.52 21.58 21.64 20.94 20.25 19.82 20.06 19.56 97.84 20.37 20.55 20.81 20.94 21.14 21.14 21.14 21.14 21.14 21.14 21.14 21.31 21.48 21.52	0.00 0.00

FACILITY NO.: 8934
FACILITY NAME: OAKLAND
STATE: CA
FACILITY TYPE: TERMINAL

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
ES-006 ES-006 ES-006 ES-006 ES-006	3/12/96 4/09/96 5/07/96 6/05/96 7/09/96	19.85 20.14 20.42 20.41 20.74	19.85 20.14 20.42 20.41 20.74	0.00 0.00 0.00 0.00 0.00
ES-007 ES-007	1/05/93 9/01/93 10/07/93 11/02/93 12/06/93 2/02/94 4/07/94 5/05/94 6/07/94 7/13/94 8/03/94 9/14/94 11/02/94 11/02/94 11/02/94 11/02/94 11/02/94 11/02/95 3/07/95 5/09/95 5/09/95 10/03/95 10/05/95 11/02/95 12/07/95 12/07/95 12/07/95 12/07/96 6/05/96 7/09/96 5/07/96 6/05/96 7/09/96 9/05/96	19.71 19.99 20.15 19.79 19.14 19.30 19.33 19.40 19.30 19.33 19.11 19.40 19.73 19.79 18.63 17.35 17.35 17.35 18.79 18.46 18.77 18.98 19.15 19.36 18.77 18.36 18.77 18.36 18.71 18.36 18.72 19.15	19.71 19.71 19.79 20.15 19.44 19.33 19.40 19.39 19.40 19.30	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
ES-008 ES-008 ES-008 ES-008 ES-008	9/01/93 10/07/93 11/02/93 12/06/93 1/05/94	18.88 19.13 19.26 19.24 19.10	18.88 19.13 19.26 19.24 19.10	0.00 0.00 0.00 0.00

FACILITY NO.: FACILITY NAME: 8934 OAKLAND

CA

STATE: FACILITY TYPE: TERMINAL

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
ES-008 ES	2/02/94 3/02/94 4/07/94 5/05/94 6/07/94 7/13/94 8/03/94 10/06/94 11/02/94 11/02/94 12/07/95 3/07/95 3/07/95 5/09/95 5/09/95 7/06/95 8/10/95 9/07/95 10/03/95 11/02/95 12/07/95 12/07/96 3/12/96 4/09/96 5/07/96	19.08 18.28 18.44 18.32 18.350 18.42 18.50 18.76 18.76 18.00 16.83 16.99 16.92 17.56 17.56 17.59 18.27 18.27 18.36 17.79 17.36 17.36 17.36 17.71		0.00 0.00
ES-009	9/01/93 10/07/93 12/06/93 1/05/94 2/02/94 3/02/94 4/07/94 5/05/94 6/07/94 7/13/94 8/03/94 9/14/94 10/06/94 11/02/94 12/07/94 1/13/95 2/14/95	17.90	19.74 17.90 18.00 17.80 17.02 17.12 17.24 17.04 17.06 17.40 17.10 17.55 16.79 15.80 15.49	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

STATE: CA

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
ES-009 ES-0099 ES-0099 ES-0099 ES-0099 ES-0099 ES-0099 ES-0099 ES-0099 ES-0099 ES-0099 ES-0099 ES-0099 ES-0099	6/09/95 7/06/95 8/10/95 9/07/95 10/03/95	15.79 15.23 15.72 16.34 16.67 16.87 17.09 17.30 17.48 17.12 16.00 15.63 15.92 16.17 16.52 16.92	15.79 15.23 15.72 16.13 16.34 16.67 16.87 17.09 17.09 17.30 17.48 17.12 16.00 15.63 15.92 16.17 16.19 16.52 16.92	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
ES-010	12/06/93 1/05/94 2/02/94 3/02/94 4/07/94 5/05/94 6/07/94 7/13/94 8/03/94 9/14/94 10/06/94	18.04 17.40 17.44 17.44 17.27 17.25 16.74 16.50 16.48 16.90 16.49 15.34 15.38 15.38 15.38 16.49 15.82 15.82 16.57 16.65 16.57 16.65 16.65 17.91 16.65 16.79 16.65 16.79 16.65 17.97 16.65	18.04 17.40 17.46 17.44 17.27 17.25 16.74 16.55 17.50 16.20 16.48 16.96 17.05 16.29 15.42 15.34 14.82 15.34 14.82 15.70 16.59 16.59 16.59 16.59 16.59 16.59 16.59 16.77 16.61	0.00 0.00

STATE: CA

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
ES-010 ES-010 ES-010 ES-010 ES-010 ES-010	2/06/96 3/12/96 4/09/96 5/07/96 6/05/96 7/09/96 9/05/96	15.71 17.35 15.44 15.75 17.75 18.04 16.45		0.00 0.00 0.00
ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011 ES-011	2/14/95 3/07/95 4/11/95 5/09/95 6/09/95 7/06/95 8/10/95 9/07/95 10/03/95 10/05/95 12/07/95 1/03/96 2/06/96 3/12/96 4/09/96 5/07/96 6/05/96 7/09/96	18.74 18.90 19.02 18.84 18.38 18.35 18.45 18.45 18.45 18.47 17.54 17.49 17.59 14.57 17.59 18.20 18.39 18.20 18.31 17.51 17.51 17.51 18.20 18.31 18.20 18.31 17.51 17.51 18.31	18.74 18.90 19.00 19.02 18.86 18.74 18.38 18.15 18.28 18.47 18.55 18.64 17.16 16.76 17.55 18.69 17.58 18.20 18.38 18.20 18.38 18.21 17.45 18.33 17.42 17.42 17.71	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
ES-011 MW-002	9/05/96	18.07	18.07 18.61	0.00

STATE: CA

Well ID	Date	DEPTH TO LIQUID (ft)	DEPTH TO WATER (ft)	PRODUCT THICKNESS (ft)
MW-003	10/08/96	18.98	18.98	0.00
MW-004	10/08/96	17.97	17.97	0.00
MW-006	10/08/96	21.23	21.23	0.00
MW-007	10/08/96	19.37	19.37	0.00
MW-008	10/08/96	18.44	18.44	0.00
MW-009	10/08/96	17.19	17.19	0.00
MW-010	10/08/96	16.70	16.70	0.00
MW-011	10/08/96	18.29	18.29	0.00

ATTACHMENT C PREVIOUS ANALYTICAL DATA SUMMARY

Facility Number: 8934
Facility Name: OAKLAND
State: CA
Facility Type: TERMINAL

TERMINAL

Location	Date	Benzene (ug/l)	Toulene (ug/l)	Ethyl- benzene(ug/l)	Total Xylenes(ug/l)	Total Btex(ug/l)	TPH diesel(mg/l)	TPH gasoline(mg/l)
BC-02	7/08/92	ND	ND	ND	8.4	8.4	2.1	NA
BC-02	10/06/92	ND	1.1	0.9	7.2	9.2	ND	NA
BC-02	1/07/93	ND	1.1	1.5	9.5	12.1	ND	NA
BC-02	4/06/93	ND	ND	ND	ND	ND	0.13	ND
BC-02	10/07/93	ND	ND	ND	ND	ND	1.4	NA
BC-02	1/05/94	NA	NA	NA	NA	NA	NA	NA
BC-02	4/07/94	NA	NA	NA	NA	NA	NA	NA
BC-02	7/13/94	NA	NA	NA	NA	NA	NA	NA
BC-02	10/06/94	NA	NA	NA	NA	NA	NA	NA
BC-02	1/13/95	ND	ND	ND	ND	ND	1.1	ND
BC-02	4/11/95	ND	ND	ND	ND	ND	ND	ND
BC-02	7/06/95	ND	ND	ND	ND	ND	0.29	ND
BC-02 7	10/05/95	1 ,	ND	ND	1	2	1.5	ND
BC-03	7/08/92	ND	2.5	ND	6.1	8.6	3.9	NA
BC-03	7/08/92	ND	2.5	ND	6.1	8.6	3.9	NA
BC-03	10/06/92	ND	1.9	0.5	1.8	4.2	0.8	NA
BC-03	1/07/93	ND	ND	ND	ND	ИD	ND	NA
BC-03	4/06/93	ND	ND	ND	ND	ND	0.12	ND
BC-03	10/07/93	ND	ND	1.0	2.0	3.0	1.4	NA
BC-03	1/05/94	\mathbf{N} D	ND	ND	1.6	1.6	1.8	ND
BC-03	4/07/94	ND	ND	ND	ND	ND	0.85	ND
BC-03	7/13/94	ND	ND	ND	ND	ND	0.20	ND
BC-03	10/06/94	ND	ND	ND	ND	ND	0.82	ND
BC-03	1/13/95	ND	ND	ND	ND	ND	0.89	ND
BC-03	4/11/95	ND	ND	ND	ND	ND	ND	ND
BC-03	7/06/95	ND	ND	ND	ND	ND	0.38	ND
BC-03 2	10/05/95	ND	ND	ND	ND	ND	ND	ND

Facility Number: 8934
Facility Name: OAKLAND
State: CA
Facility Type: TERMINAL

TERMINAL

Location	Date	Benzene (ug/l)	Toulene (ug/l)	Ethyl- benzene(ug/l)	Total Xylenes(ug/l)	Total Btex(ug/l)	TPH diesel(mg/l)	TPH gasoline(mg/l)
ES-03 ES-03	7/08/92 10/06/92	54 93	21 18	48 ND	34 11	157 122	1.3 ND	NA NA
ES-03	1/07/93	52	49	100	250	451	ND	NA
ES-03	4/06/93	53	ND	67	78	198	0.51	4.5
ES-03 ES-03	7/23/93 10/07/93	28 2.0	5.9 1.0	4.6 ND	4.6	43.1	0.06	1500
ES-03	1/05/94	13	2.0	7.0	2.0 5.0	5.0 27	ND NA	NA 0.53
ES-03	4/07/94	10	9	26	34	79	0.91	0.85
	7/13/94	2.0	0.9	0.8	3.0	6.7	0.28	0.37
ES-03	10/06/94	ND	ND	ND	ND	ND	ND	ND
	1/13/95	19	15	72	88	194	1.1	1.6
ES-03	4/11/95	20	7	36	22	85	0.39	0.94
ES-03	7/06/95	6	ND	7	ND	1.3	1.2	0.24
ES-03	10/05/95	2	2	ND	ND	4	0.11	ND
ES-03	1/05/96	ND	ND	ND	ND	ND	ND	ND
ES-03	4/09/96	ND	ND	ND	ND	ND	0.12	NA
ES-03	7/09/96	ND	ND	ND	ND	ND	ND	ND
ES-03 G C	10/08/96	ND	ND	ND	ND	ND	ND	ND
ES-04	7/08/92	31	5.6°	ND	2.8	39.4	ND	NA
ES-04	10/06/92	100	8.2	ND	7.6	115.8	ИD	NA
ES-04	1/07/93	30	6.7	7.7	16	60.4	ND	NA
ES-04	4/06/93	33	2.3	1.9	4.7	41.9	ND	0.36
ES-04	7/23/93	24	1.1	0.07	8.3	33.47	ND	ND
ES-04	10/07/93	8.0	ND	ND	2.0	10.0	ND	NA
ES-04	1/05/94	15	0.6	0.4	3.0	19	ND	0.13
ES-04	4/07/94	11	ND	ND	ND	11	ND	0.17
	7/13/94	9.0	ND	ND	0.7	9.7	ND	0.13
	10/06/94	18.0	ND	2.0	3.0	23.0	ND	0.10
	1/13/95	12 39	ND	ND	2	14	ND	0.15
<u> </u>	4/11/95	23	4	12	24	79	ND	0.18

Facility Number: 8934
Facility Name: OAKLAND
State: CA

Facility Type: TERMINAL

Location	Date	Benzene (ug/l)	Toulene (ug/l)	Ethyl- benzene(ug/l)	Total Xylenes(ug/l)	Total Btex(ug/l)	TPH diesel(mg/l)	TPH gasoline(mg/l)
ES-04 ES-04 ES-04	7/06/95 10/05/95 1/05/96	100 210 34	10 16 ND	26 71 5	61 84 4	197 381 ND	0.16 0.17 ND	0.60 1.2 0.12
ES-04 ES-04 ES-04 DL	4/11/96 7/09/96 10/08/96	57 43 110	3 4.6 4.4	17 21 42	19 17 39	96 85.6 195.4	ND ND	NA 0.22 0.86
ES-06 ES-06 ES-06 ES-06 ES-06 ES-06 ES-06 ES-06 ES-06 ES-06	7/23/93 10/07/93 1/05/94 4/07/94 7/13/94 10/06/94 1/13/95 4/11/95 7/06/95 10/05/95 1/05/96 4/09/96 7/09/96 10/08/96	ND 1.0 ND	ND N	ND N	ND N	ND N	ND N	ND NA ND 0.16 ND
ES-07 ES-07 ES-07 ES-07 ES-07 ES-07 ES-07	7/23/93 10/07/93 1/05/94 4/07/94 7/13/94 10/06/94 1/13/95 4/11/95	ND ND ND ND ND ND ND ND	ND	ND	ND	ND	ND ND O.10 ND ND ND ND ND ND ND ND	ND NA ND 0.11 ND ND ND ND ND

Facility Number: 8934
Facility Name: OAKLAND
State: CA
Facility Type: TERMINAL

Location	Date	Benzene (ug/l)	Toulene (ug/l)	Ethyl- benzene(ug/l)	Total Xylenes(ug/l)	Total Btex(ug/l)	TPH diesel(mg/l)	TPH gasoline(mg/l)
ES-07 ES-07 ES-07 ANNUAL	7/06/95 10/05/95 7/09/96	ND ND	ND ND ND	ND ND ND	ND ND	ND ND	ND ND ND	ND ND
ES-08 ES-08 ES-08 ES-08 ES-08 ES-08 ES-08 ES-08	7/23/93 10/07/93 1/05/94 4/07/94 7/13/94 10/06/94 1/13/95 4/11/95 7/06/95 10/05/95 7/09/96	ND N	ND N	ND N	ND N	ND N	ND ND ND NA ND	ND NA ND
ES-09 ES-09 ES-09 ES-09 ES-09 ES-09 ES-09	7/23/93 10/07/93 1/05/94 4/07/94 7/13/94 10/06/94 1/13/95 4/11/95 7/06/95 10/05/95	ND N	ND N	ND N	ND	ND	ND ND ND ND ND ND ND ND ND 1.1 ND ND ND ND	ND NA ND
ES-10 ES-10	7/23/93 10/07/93	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND NA

Facility Number: 8934
Facility Name: OAKLAND
State: CA

CA TERMINAL Facility Type:

Location	Date	Benzene (ug/l)	Toulene (ug/l)	Ethyl- benzene(ug/l)	Total Xylenes(ug/1)	Total Btex(ug/l)	TPH diesel(mg/l)	TPH gasoline(mg/l)
ES-10	1/05/94	ND	ND	ND	ND	ND	ND	ND
ES-10	4/07/94	ND	ND	ND	ND	ND	ND	ND
ES-10	7/13/94	ND	ND	ND	ND	ND	ND	ND
ES-10	10/06/94	ND	ND	ND	ND	ND	ND	ND
ES-10	1/13/95	ND	ND	ND	ND	ND	ND	ND
ES-10	4/11/95	ND	ND	ND	ND	ND	ND	ND
ES-10	7/06/95	ND	ND	ND	ND	ND	ND	ND
ES-10	10/05/95	ND	ND	ND	ND	ND	ND	ND
DEOPPED								
T-0	= /oo /oo							
ES-11	7/23/93	ND	0.7	ND	1.2	1.9	ND	ND
ES-11	10/07/93	ND	ND	ND	ND	ND	ND	NA
ES-11	1/05/94	ND	ND	ND	ND	ND	ND	ND
ES-11	4/07/94	ND	ND	ND	ND	ND	0.35	ND
ES-11	7/13/94	ND	ND	ND	ND	ND	ND	ND
ES-11	10/06/94	ND	ND	ND	ND	ND	ND	ND
ES-11	1/13/95	ND	$\mathtt{N}\mathtt{D}$	ND	ND	ND	ND	ND
ES-11	4/11/95	ND	ND	ND	ND	ND	ND	0.17
ES-11	7/06/95	ND	ND	ND	ND	ND	ND	ND
ES-11	10/05/95	ND	ND	ND	ND	ND	ND	ND
ES-11	7/09/96	ND	ND	ND	ND	ND	ND	ND
ANNU AL								