USPCI
A LAIDLAW COMPANY

Consulting Services

October 30, 1996

Mr. Harry Patterson
Union Pacific Railroad
1416 Dodge Street, Room 930
Omaha, Nebraska 68179

Subject: **"Third Quarter 1996 Monitoring Report"** Oakland Motor Freight Facility, 1750 Ferro Street, Oakland, California, USPCI/Laidlaw Project No. 96120-844

Dear Mr. Patterson:

Enclosed is the final copy of the **"Third Quarter 1996 Monitoring Report"**, dated October 30, 1996, for the Union Pacific Motor Freight Facility at 1750 Ferro Street in Oakland, California.

If you have any questions, please call us at (303) 938-5500.

Sincerely,

Denton Mauldin
Project Manager

Sam Marquis, R.G., P.G.
Project Hydrogeologist

cc: Jennifer Eberle, ACDEH
John Prall, Port of Oakland
Jami Matanky, APL
Mark McCormick, USPCI/Laidlaw

Enclosure
DM/tjh

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THIRD QUARTER 1996
MONITORING REPORT

UNION PACIFIC MOTOR FREIGHT
FACILITY
OAKLAND, CALIFORNIA

USPCI/LAIDLAW PROJECT NO.
792919-844

PREPARED FOR:

UNION PACIFIC RAILROAD
ENVIRONMENTAL MANAGEMENT
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October 30, 1996

THIRD QUARTER 1996 MONITORING REPORT
UNION PACIFIC RAILROAD
UNION PACIFIC MOTOR FREIGHT FACILITY
OAKLAND, CALIFORNIA
USPCI/Laidlaw Project No. 792919-844

Prepared for:
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October 30, 1996

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1.0 INTRODUCTION

USPCI, a Laidlaw Company (Laidlaw) prepared this document on behalf of Union Pacific Railroad (UPRR) as part of the groundwater monitoring and reporting program at the Union Pacific Motor Freight (UPMF) facility at 1750 Ferro Street in Oakland, California (Figure 1). The report was prepared in response to an April 29, 1993 Alameda County Department of Environmental Health, Hazardous Materials Division (ACDEH) request for UPRR to begin a quarterly monitoring program at the UPMF facility.

The quarterly monitoring program consists of the collection of fluid-level measurements in the groundwater monitoring wells and an analysis of dissolved contaminants in groundwater. The monitoring program is directed towards an understanding of the groundwater gradient and the changes in the concentration of dissolved petroleum hydrocarbons at the site. Field and analytical data from this program are compiled in this report. This report includes a discussion of the background information about the site, field and analytical results, and conclusions and recommendations.

2.0 BACKGROUND INFORMATION

The following subsections present information about the site history and investigative procedures.

2.1 SITE HISTORY

The site is located on the southeastern portion of the UPRR Oakland trailer-on-flat-car (TOFC) Yard, which is adjacent to the Oakland Inner Harbor or Oakland Estuary (Figures 1 and 2). The area surrounding the site is used for heavy to light commerce. Residential areas are located approximately one-half mile north of the site and across the Oakland Estuary one-half mile south of the site.

Five underground storage tanks (USTs) were removed from the UPMF site between 1987 and 1990. As a result of the tank removal activities, a site assessment was performed in two phases to define the extent of petroleum hydrocarbons in the soil and groundwater (Laidlaw, 1993). All petroleum hydrocarbons found at the site have been identified as either used motor oil or "bunker C." For brevity, the light non-aqueous phase of these hydrocarbons are referred to as "product."

The refueling portion of the TOFC yard, approximately 700 feet northwest and upgradient of the UPMF site, is currently undergoing groundwater remediation for recovery of non-aqueous phase liquid as diesel. (The refueling area is a separate project and is not the subject of this report.) The extent of contamination at the refueling area was defined during previous investigations (Laidlaw,

1993). On the basis of these investigations and subsequent monitoring, petroleum hydrocarbons from the refueling area do not extend to the UPMF facility.

2.2 Investigative Procedures

UPRR has subcontracted Burns and McDonnell Waste Consultants, Inc. to perform a portion of the fieldwork associated with the project. Laidlaw and the UPRR subcontractor followed the standard operating procedures previously supplied to and approved by the ACDEH (Laidlaw, 1994). The quarterly monitoring activities consist of the following:

- Measuring-fluid levels in all of the motor freight facility groundwater monitoring wells;
- Purging and sampling groundwater monitoring wells where product is not observed;
- Analyzing groundwater samples for petroleum hydrocarbons and constituents;
- Analyzing groundwater samples for dissolved arsenic (third quarter only);
- Removing product from the recovery well (RW) and monitoring the performance of the product skimmer; and
- Determining the local hydraulic gradient based on the groundwater level measurements.

All samples were analyzed for: total petroleum hydrocarbons as diesel (TPH-D) by EPA Method 8015 Modified; total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 8015 Modified; benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8020; and dissolved arsenic by EPA Method 7060.

Fluid-level measurements are collected from the recovery well RW and monitoring wells OKUS-W5 and OKUS-W6 on a monthly basis. These measurements are collected to assess the temporal variations in the thickness of product. Fluid-level measurements are collected from the remaining monitoring wells on a quarterly basis.

3.0 FIELD INVESTIGATION RESULTS

The following subsections present the findings from activities completed during the monitoring event.

3.1 FLUID-LEVEL MEASUREMENTS

Fluid-levels were measured on August 27, 1996 and are compiled into Table 1. The data were used to produce the groundwater elevation map presented as Figure 3. A decrease in groundwater elevations relative to the previous monitoring events (first and second quarters 1996) was noted in all of the monitoring wells gauged at the site except APL/UP-W2. Since 1995, groundwater elevations have been highest during the first quarter of each year. These elevations typically decrease during the second, third, and fourth quarters.

Monitoring well APL/UP-W1 was not gauged or sampled during the event because stacked container trailers were placed directly upon the well head. Laidlaw personnel did not observe any visible damage to the well. Monitoring well OKUS-W4 was not gauged or sampled because of visible damage to the well head. OKUS-W4 is located upgradient from the previous spill location. Wells associated with the fueling area can provide up-gradient informaion in the future (Figure 2).

3.2 GROUNDWATER GRADIENT

The groundwater gradient at the site averaged approximately 0.01 foot per foot and the observed groundwater flow direction was to the east. The groundwater gradient and flow direction were consistent with gradients and flow directions observed during previous monitoring events. The lack of product observed during the collection of fluid-level measurements in groundwater monitoring wells did not indicate that product has migrated down-gradient.

3.3 ANALYTICAL RESULTS

Analytical results for all monitoring wells sampled during the third quarter 1996 monitoring event were compiled into Table 2. Samples were not collected from monitoring wells OKUS-W4, OKUS-W5, OKUS-W6, and APL/UP-W1.

The samples collected from monitoring well OKUS-W2 and OKUS-W3 contained dissolved benzene, toluene, ethylbenzene, and xylenes. The samples collected from monitoring wells OKUS-W7 and OKUS-W8 contained benzene only. Analytical results from the downgradient well APL/UP-W2 indicated a decrease in dissolved concentrations of benzene, ethylbenzene, and xylenes compounds. Monitoring well OKUS-W1 did not contain dissolved BTEX concentrations above the method detection limit (MDL) of 0.50 micrograms per liter (μg/l). Total BTEX concentrations ranged from below the MDL of 0.50 μg/l (OKUS-W1) to 660 μg/l (OKUS-W2).

Dissolved TPH-G, indicative of gasoline, was detected in the samples collected from monitoring wells OKUS-W2, OKUS-W3, OKUS-W7, and OKUS-W8. Monitoring wells OKUS-W1 and APL/UP-W2 did not contain detectable levels of TPH-G contamination. The TPH-G concentrations ranged from below the MDL of 50 µg/l (OKUS-W1 and APL/UP-W2) to 6,700 µg/l (OKUS-W2).

Dissolved TPH-D concentrations indicating diesel fuel, were detected in the samples collected from all monitoring wells sampled during the during the third quarter 1996 monitoring event. TPH-D concentrations ranged from 320 µg/l (APL/UP-W2) to 3,100 µg/l (OKUS-W2).

Dissolved arsenic was detected in the samples collected from monitoring wells OKUS-W2 and OKUS-W3. The dissolved arsenic concentrations ranged from below the MDL of 0.10 milligrams per liter (mg/L) in samples from APL/UP-W2, OKUS-W1, OKUS-W7, and OKUS-W8 to 0.20 mg/L in the sample from OKUS-W3. The arsenic concentrations observed during the third quarter 1996 monitoring event were consistent with historic concentrations observed at the site.

Groundwater analytical results for the wells at the site are presented in Table 2. The dissolved BTEX plume in the groundwater is presented in Figure 4. Analytical reports and chain of custody forms are included in Appendix B.

3.4 Non-Aqueous Phase Liquid

Fluid-level measurement data indicated that monitoring wells OKUS-W5 and OKUS-W6 continued to contain "bunker C" type product. An accurate determination of product thicknesses in OKUS-W5 and OKUS-W6 was not possible due to the high viscosity of the product and difficulty in measuring product thickness.

Although no product/water interface was detected in recovery well RW, Laidlaw personnel detected product on the gauging probe indicating the presence of product in the well. During the third quarter of 1996, the product skimmer system recovered approximately 2 gallons of product. As evidenced by the fluid level measurements in the recovery well RW and the lack of product recovery, the accumulation rate of product in RW has decreased.

As mentioned in Section 3.2, monitoring well OKUS-W4 was not gauged during the third quarter 1996 sampling event because of damage to the well head. Monitoring well APL/UP-1 was not gauged because, as previously described, it was inaccessible.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following subsections present conclusions and recommendations based on the third quarter 1996 monitoring results.

4.1 CONCLUSIONS

On the basis of the information in the previous sections, Laidlaw concludes that:

- The groundwater flow to the east with an average gradient of 0.01 foot per foot is consistent with previous monitoring events;
- With the exception of the decrease in APL/UP-W2, the dissolved BTEX and TPH concentrations are consistent with historical concentrations;
- Dissolved arsenic concentrations are consistent with historical concentrations;
- Well OKUS-W4 has been damaged, but other wells provide up-gradient information;
- Product was observed in OKUS-W5 and OKUS-W6;
- Product does not appear to have migrated downgradient; and
- The accumulation of product in recovery well RW appears to have decreased.

4.2 RECOMMENDATIONS

On the basis of the above conclusions, Laidlaw recommends the following:

- Continue the quarterly monitoring program;
- Continue product monitoring and removal;
- Abandon the damaged well, OKUS-W4; and
- Change the fluid-level measurement frequency for wells OKUS-W5 and OKUS-W6 from monthly to quarterly.

5.0 REFERENCES

Laidlaw, 1993. "Phase II Site Assessment Report," Union Pacific Railroad, October, 1993.

Laidlaw, 1994. "Fourth Quarter 1993, Monitoring Event," Union Pacific Railroad, May 1994.

TABLE 1
FLUID LEVEL MEASUREMENT DATA
UNION PACIFIC RAILROAD
OAKLAND MOTOR FREIGHT FACILITY

WELL NO.	ELEV.* TOC	DATE	DEPTH TO PRODUCT	PRODUCT THICKNESS	DEPTH TO WATER	WATER ELEV.	CORR'D ELEV.
OKUS-W1	9.17	08/09/95	N/A	NP	8.18	0.99	0.99
	9.17	11/29/95	N/A	NP	8.78	0.39	0.39
	9.17	02/27/96	N/A	NP	7.58	1.59	1.59
	9.17	05/29/96	N/A	NP	7.80	1.37	1.37
	9.17	08/27/96	N/A	NP	8.34	0.83	0.83
OKUS-W2	9.71	08/09/95	N/A	NP	9.09	0.62	0.62
	9.71	11/29/95	N/A	NP	9.69	0.02	0.02
	9.71	02/27/96	N/A	NP	8.49	1.22	1.22
	9.71	05/29/96	N/A	NP	8.72	0.99	0.99
	9.71	08/27/96	N/A	NP	9.24	0.47	0.47
OKUS-W3	9.80	08/09/95	N/A	NP	9.41	0.39	0.39
	9.80	11/29/95	N/A	NP	9.97	-0.17	-0.17
	9.80	02/27/96	N/A	NP	8.73	1.07	1.07
	9.80	05/29/96	N/A	NP	8.94	0.86	0.86
	9.80	08/27/96	N/A	NP	9.52	0.28	0.28
OKUS-W4	7.35	08/09/95	N/A	NP	6.10	1.25	1.25
	7.35	11/29/95	N/A	NP	6.70	0.65	0.65
	N/A	02/27/96	N/A	NP	WELL INACCESSABLE		
	N/A	05/29/96	N/A	NP	WELL DESTROYED		
	N/A	08/27/96	N/A	NP	WELL DESTROYED		
OKUS-W5	9.25	08/09/95	N/A	Trace	9.75	-0.50	-0.50
	9.25	09/07/95	N/A	Trace	9.56	-0.31	-0.31
	9.25	10/18/95	9.62	P	--	--	--
	9.25	11/10/95	9.97	P	--	--	--
	9.25	12/15/95	9.60	P	--	--	--
	9.25	01/10/96	9.58	P	--	--	--
	9.25	02/16/96	9.08	P	--	--	--
	9.25	03/25/96	8.99	P	--	--	--
	9.25	04/18/96	9.22	P	--	--	--
	9.25	05/29/96	9.06	P	--	--	--
	9.25	06/13/96	9.11	P	--	--	--
	9.25	07/25/96	9.11	P	--	--	--
	9.25	08/27/96	9.44	P	--	--	--
OKUS-W6	7.02	08/09/95	5.65	P	--	--	--
	7.02	09/07/95	5.98	P	--	--	--
	7.02	10/18/95	6.36	P	--	--	--
	7.02	11/10/95	6.52	P	--	--	--
	7.02	12/15/95	5.47	P	--	--	--
	7.02	01/10/96	5.58	P	--	--	--
	7.02	02/16/96	4.70	P	--	--	--
	7.02	03/25/96	4.72	P	--	--	--
	7.02	04/18/96	5.19	P	--	--	--
	7.02	05/29/96	5.02	P	--	--	--
	7.02	06/13/96	4.99	P	--	--	--
	7.02	07/25/96	5.23	P	--	--	--
	7.02	08/27/96	5.82	P	--	--	--

TABLE 1 (CONT.)
FLUID LEVEL MEASUREMENT DATA
UNION PACIFIC RAILROAD
OAKLAND MOTOR FREIGHT FACILITY

WELL NO.	ELEV.* TOC	DATE	DEPTH TO PRODUCT	PRODUCT THICKNESS	DEPTH TO WATER	WATER ELEV.	CORR'D ELEV.
OKUS–W7	6.91	08/09/95	N/A	NP	5.53	1.38	1.38
	6.91	11/29/95	N/A	NP	6.09	0.82	0.82
	6.91	02/27/96	N/A	NP	4.98	1.93	1.93
	6.91	05/29/96	N/A	NP	5.08	1.83	1.83
	6.91	08/27/96	N/A	NP	5.68	1.23	1.23
OKUS–W8	6.75	08/09/95	N/A	NP	5.32	1.43	1.43
	6.75	11/29/95	N/A	NP	5.95	0.80	0.80
	6.75	02/27/96	N/A	NP	4.84	1.91	1.91
	6.75	05/29/96	N/A	NP	4.93	1.82	1.82
	6.75	08/27/96	N/A	NP	5.52	1.23	1.23
APL/UP–W1	8.12	08/09/95	N/A	NP	10.01	–1.89	–1.89
	8.12	11/29/95	N/A	NP	10.29	–2.17	–2.17
	8.12	02/27/96	N/A	NP	WELL INACCESSABLE		
	8.12	05/29/96	N/A	NP	WELL INACCESSABLE		
	8.12	08/27/96	N/A	NP	WELL INACCESSABLE		
APL/UP–W2	7.31	08/09/95	N/A	NP	9.42	–2.11	–2.11
	7.31	11/29/95	N/A	NP	9.41	–2.10	–2.10
	7.31	02/27/96	N/A	NP	8.89	–1.58	–1.58
	7.31	05/29/96	N/A	NP	9.68	–2.37	–2.37
	7.31	08/27/96	N/A	NP	9.53	–2.22	–2.22
RW	––	08/09/95	9.07	0.03	9.10	––	––
	––	09/07/95	9.18	0.01	9.19	––	––
	––	10/18/95	9.41	0.02	9.43	––	––
	––	11/10/95	9.58	––	N/A	––	––
	––	12/15/95	9.46	0.12	9.58	––	––
	––	01/10/96	9.24	0.04	9.28	––	––
	––	02/16/96	N/A	––	8.73	––	––
	––	03/25/96	N/A	––	8.50	––	––
	––	04/18/96	N/A	––	8.70	––	––
	––	05/29/96	N/A	––	8.68	––	––
	––	06/13/96	N/A	––	8.68	––	––
	––	07/25/96	N/A	––	9.09	––	––
	––	08/27/96	N/A	––	9.18	––	––

* All well casings measured to mean sea level (MSL).
–– Information not available or inaccurate.
P – Product (bunker C) was encountered but the oil/water interface could not be found.

N/A Non Applicable
NP – No Product

TABLE 2
ANALYTICAL RESULTS – GROUNDWATER MONITORING WELLS
UNION PACIFIC RAILROAD
OAKLAND MOTOR FREIGHT FACILITY

SAMPLE LOCATION	SAMPLE ID	DATE SAMPLED	TPH/D (ug/l)	TPH/G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	BTEX (ug/l)	As (mg/l)
OKUS–W1	OKUS–W1	01/14/93	ND	410	20	4	220	ND	240	ND
"	"	05/12/93	120	ND	ND	ND	ND	ND	ND	ND
"	"	08/25/83	100	ND	ND	ND	ND	ND	ND	ND
"	"	11/11/93	160	91	1.1	0.88	21	1.6	24	ND
"	"	02/08/94	92	<50	<0.50	<0.50	<0.50	<0.50	ND	<0.10
"	"	05/03/94	61	<50	<0.50	<0.50	<0.50	<0.50	ND	<0.10
"	"	08/24/94	86	<50	<0.50	<0.50	<0.50	<0.50	ND	<0.10
"	"	11/16/94	51	<50	<0.50	<0.50	<0.50	<0.50	ND	NA
"	"	02/22/95	120	<50	<0.50	<0.50	<0.50	<0.50	ND	NA
"	"	06/22/95	<50	<50	<0.50	<0.50	<0.50	<0.50	ND	NA
"	"	08/09/95	<50	<50	<0.50	<0.50	<0.50	<0.50	ND	0.04
"	"	11/29/95	480	<50	<0.50	<0.50	<0.50	<0.50	ND	<0.0050
"	"	02/27/96	330	<50	<0.50	<0.50	<0.50	<0.50	ND	NA
"	"	05/30/96	320	<50	<0.50	<0.50	<0.50	<0.50	ND	NA
"	"	08/27/96	440	<50	<0.50	<0.50	<0.50	<0.50	ND	<0.10
OKUS–W2	OKUS–W2	01/14/93	5400	14000	480	92	8500	ND	9100	0.036
"	"	05/12/93	2800	8800	220	47	4600	100	5000	0.093
"	"	08/25/93	6500	22000	420	92	10000	210	11000	0.089
"	"	11/11/93	7700	24000	540	150	13000	280	14000	ND
"	"	02/08/94	2300	4900	150	29	3000	76	3300	<0.10
"	"	05/03/94	2600	17000	300	<0.50	5800	220	6300	<0.10
"	"	08/24/94	8200	11000	320	67	7500	250	8100	<0.10
"	"	11/16/94	5500	10000	290	79	130	160	660	NA
"	"	02/22/95	2000	3500	100	18	1600	66	1800	NA
"	"	06/22/95	3200	13000	260	62	<0.50	110	430	NA
"	"	08/09/95	2900	4800	160	28	<0.50	200	390	0.92
"	"	11/29/95	5600	7100	240	34	<0.50	58	330	0.049
"	"	02/27/96	2400	5300	200	42	3400	160	3800	NA
"	"	05/30/96	1900	7000	210	<0.50	<0.50	180	390	NA
"	"	08/27/96	3100	6700	240	65	170	180	660	0.17
OKUS–W3	OKUS–W3	01/14/93	4200	4900	230	42	2600	44	2900	NA
"	"	05/12/93	4400	4600	290	60	3500	72	3900	0.14
"	"	08/25/93	2700	9400	280	55	4300	41	4700	0.08
"	"	11/11/93	5000	9500	390	110	5100	130	5700	0.14
"	"	02/08/94	4400	17000	420	78	9800	160	10000	0.12
"	"	05/03/94	3000	14000	310	61	6400	210	7000	0.14
"	"	08/24/94	4500	10000	350	78	7300	170	7900	<0.10
"	"	11/16/94	4700	9100	260	64	95	<0.50	420	NA
"	"	02/22/95	2400	7400	250	51	4400	150	4900	NA
"	"	06/22/95	3300	8100	250	53	<0.50	76	380	NA
"	"	08/09/95	3100	5200	200	39	<0.50	140	380	1.6
"	"	11/29/95	4500	5300	220	42	<0.50	44	310	0.18
"	"	02/27/96	4000	7900	330	75	6400	240	7000	NA
"	"	05/30/96	2300	8900	200	<0.50	<0.50	61	260	NA
"	"	08/27/96	2700	3100	170	37	64	36	310	0.20
OKUS–W4	OKUS–W4	01/15/93	5400	8900	300	ND	4500	ND	4800	NA
"	"	05/12/93	2900	6000	320	110	4600	230	5300	0.16
"	"	08/26/93	2200	6700	350	72	4800	130	5400	0.098
"	"	11/11/93	2400	5500	250	53	4600	140	5000	0.13
"	"	02/07/94	2700	9100	250	<0.50	4900	150	5300	<0.10
"	"	05/03/94	2300	6500	240	34	4200	140	4600	0.12
"	"	08/24/94	2900	5200	200	41	3600	190	4000	0.11
"	"	11/16/94	2800	5500	320	52	<0.50	120	490	NA
"	"	02/22/95	2000	4300	250	47	2900	160	3400	NA
"	"	06/22/95	2700	4900	280	38	5200	140	5700	NA
"	"	08/09/95	2900	5300	270	54	<0.50	210	530	1.3
"	"	11/29/95	3100	4500	200	41	<0.50	46	290	0.14
"	"	02/27/96	WELL INACCESSABLE – NOT SAMPLED							
"	"	05/30/96	WELL INACCESSABLE – NOT SAMPLED							
"	"	08/27/96	WELL INACCESSABLE – NOT SAMPLED							

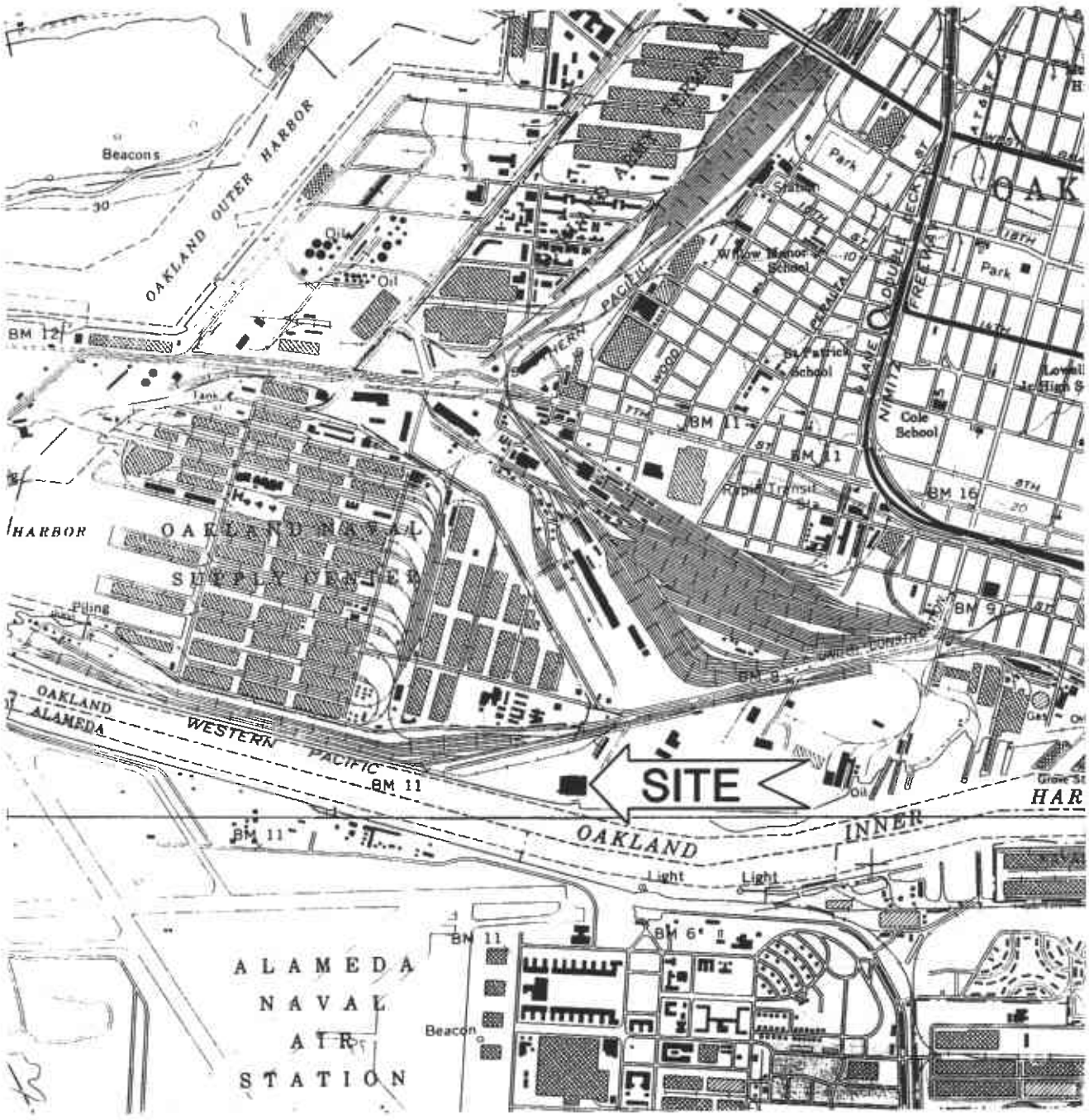
TABLE 2 (CONT.)
ANALYTICAL RESULTS – GROUNDWATER MONITORING WELLS
UNION PACIFIC RAILROAD
OAKLAND MOTOR FREIGHT FACILITY

SAMPLE LOCATION	SAMPLE ID	DATE SAMPLED	TPH/D (ug/l)	TPH/G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	BTEX (ug/l)	As (mg/l)
				550						
OKUS–W5	OKUS–W5	01/15/93	2900	550	53	11	180	20	260	NA
"	"	05/12/93	2100	550	81	14	250	37	380	0.56
"	"	08/25/93	PRODUCT IN WELL – NOT SAMPLED							
"	"	11/11/93	1600	590	14	3.1	54	6.2	77	0.53
"	"	02/07/94	1900	760	54	9.4	220	24	310	0.55
"	"	05/03/94	2000	820	57	9.5	240	27	330	0.38
"	"	08/24/94	1700	910	55	14	8.5	18	96	0.45
"	"	05/30/96	PRODUCT IN WELL – THE WELL HAS NOT BEEN SAMPLED SINCE 1994							
"	"	08/27/96	PRODUCT IN WELL – THE WELL HAS NOT BEEN SAMPLED SINCE 1994							
OKUS–W6	OKUS–W6	07/16/93	BRK	ND	2.5	ND	ND	ND	2.5	0.004
"	"	08/25/93	590	ND	2.6	ND	4.9	1.3	8.8	0.013
"	"	11/12/93	610	ND	3.6	ND	3.7	1.3	8.6	ND
"	"	05/30/96	PRODUCT IN WELL – THE WELL HAS NOT BEEN SAMPLED SINCE 1993							
"	"	08/27/96	PRODUCT IN WELL – THE WELL HAS NOT BEEN SAMPLED SINCE 1993							
OKUS–W7	OKUS–W7	07/16/93	ND	ND	2.1	ND	ND	ND	2.1	0.009
"	"	08/25/93	930	56	2.9	ND	1.2	ND	4.1	ND
"	"	11/12/93	1100	ND	ND	ND	ND	ND	ND	ND
"	"	02/07/94	1100	ND	0.7	<0.50	<0.50	<0.50	0.7	<0.10
"	"	05/03/94	1300	<50	<0.50	<0.50	<0.50	<0.50	ND	<0.10
"	"	08/24/94	910	<50	2.5	0.54	<0.50	<0.50	3.0	<0.10
"	"	11/16/94	820	<50	0.62	<0.50	<0.50	<0.50	0.6	NA
"	"	02/22/95	830	<50	0.54	<0.50	<0.50	<0.50	0.5	NA
"	"	06/22/95	850	<50	2.4	<0.50	0.52	<0.50	2.9	NA
"	"	08/09/95	640	71	4.2	<0.50	1.2	1.2	6.6	0.074
"	"	11/29/95	1300	64	4.3	<0.50	1.3	0.51	6.1	0.0095
"	"	02/27/96	2600	<50	1.5	<0.50	0.54	<0.50	2.0	NA
"	"	05/30/96	1900	60	2	<0.50	0.54	<0.50	2.0	NA
"	"	08/27/96	1700	70	2.3	<0.50	<0.50	<0.50	2.3	<0.10
OKUS–W8	OKUS–W8	07/16/93	ND	ND	ND	ND	ND	ND	ND	0.012
"	"	08/27/93	1100	120	1.3	ND	ND	0.85	2.2	ND
"	"	11/11/93	1300	190	3.5	1.3	46	4.9	55.7	ND
"	"	02/07/94	1000	120	0.9	<0.50	<0.50	<0.50	0.9	<0.10
"	"	05/03/94	760	79	0.99	<0.50	<0.50	<0.50	1.0	<0.10
"	"	08/24/94	700	100	1.4	<0.50	<0.50	<0.50	1.4	<0.10
"	"	11/16/94	830	110	0.77	<0.50	<0.50	<0.50	0.8	NA
"	"	02/22/95	370	150	0.96	<0.50	<0.50	1.2	2.2	NA
"	"	06/22/95	870	76	0.92	<0.50	<0.50	<0.50	0.9	NA
"	"	08/09/95	1100	90	1.1	<0.50	<0.50	1.3	2.4	0.078
"	"	11/29/95	2400	100	0.73	<0.50	<0.50	0.91	1.6	<0.0050
"	"	02/27/96	1900	80	<0.50	<0.50	<0.50	1.3	1.3	NA
"	"	05/30/96	2200	210	<0.50	<0.50	<0.50	0.7	0.7	NA
"	"	08/27/96	2100	150	0.64	<0.50	<0.50	<0.50	0.64	<0.10
APL/UP–W1	APL/UP–W1	07/16/93	700	300	25.4	1.7	ND	3.0	30	0.011
"	"	08/26/93	810	720	47	1.3	360	14.0	420	0.013
"	"	11/11/93	530	560	26	ND	220	11.0	260	ND
"	"	02/07/94	660	620	25	<0.50	180	10	220	<0.10
"	"	05/03/94	590	680	48	2.9	260	9.8	320	<0.10
"	"	08/24/94	420	830	48	4.8	12	3.2	68	<0.10
"	"	11/15/94	480	470	36	3.6	9.6	12	61	NA
"	"	02/22/95	510	470	33	2.8	170	9	210	NA
"	"	06/22/95	320	160	12	0.82	3.5	2.4	19	NA
"	"	08/09/95	160	69	4.2	<0.50	<0.50	2.3	7	<0.0050
"	"	11/29/95	920	170	7.4	0.58	66	3.5	78	0.018
"	"	02/27/96	WELL INACCESSABLE – NOT SAMPLED							
"	"	05/30/96	WELL INACCESSABLE – NOT SAMPLED							
"	"	08/27/96	WELL INACCESSABLE – NOT SAMPLED							

TABLE 2 (CONT.)
ANALYTICAL RESULTS – GROUNDWATER MONITORING WELLS
UNION PACIFIC RAILROAD
OAKLAND MOTOR FREIGHT FACILITY

SAMPLE LOCATION	SAMPLE ID	DATE SAMPLED	TPH/D (ug/l)	TPH/G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	BTEX (ug/l)	As (mg/l)
APL/UP-W2	APL/UP-W2	07/16/93	ND	ND	8.0	ND	ND	ND	8	0.016
"	"	08/26/93	240	94	ND	ND	35	2.4	37	0.023
"	"	11/11/93	190	110	5.0	ND	38	2.6	46	ND
"	"	02/07/94	270	120	6.6	<0.50	38	1.8	46	<0.10
"	"	05/03/94	100	<50	<0.50	<0.50	<0.50	<0.50	ND	<0.10
"	"	08/24/94	330	220	13.0	0.77	3.5	3.1	20	<0.10
"	"	11/15/94	320	190	11.0	<0.50	63.0	5.4	79	NA
"	"	02/22/95	550	320	19.0	<0.50	100	9.5	130	NA
"	"	06/22/95	300	170	10.0	62	2.2	2.3	76	NA
"	"	08/09/95	180	62	3.5	<0.50	<0.50	2.3	5.8	0.22
"	"	11/29/95	690	110	7.2	<0.50	49	2.3	59	0.019
"	"	02/27/96	480	100	5.3	<0.50	33	2.9	41	NA
"	"	05/30/96	280	<50	1.9	<0.50	<0.50	1.2	3.1	NA
"	"	08/27/96	320	<50	1.1	<0.50	1.0	<0.50	2.1	<0.10
DUPLICATES										
OKUS-W5	OKUS-W6	01/15/93	2800	510	50	10	170	19	250	NA
OKUS-W1	OKUS-W6	05/12/93	140	ND	ND	ND	ND	ND	ND	ND
APL/UP-W1	QA/QC-1	07/16/93	ND	0.21	22.4	ND	ND	2.4	25	0.012
OKUS-W4	OKUS-W9	08/26/93	2700	6200	340	78	4500	100	5000	0.10
OKUS-W8	OKUS-W9	11/11/93	1300	120	1.3	ND	4	1.4	7	2.40
OKUS-W3	QA/QC-1	02/08/94	2900	15000	280	64	5800	<0.50	6100	0.12
OKUS-W4	OKUS-QC1	05/03/94	2500	5400	300	41	5200	130	5700	0.12
OKUS-W8	OKUS-QC1	08/24/94	950	92	1.6	<0.50	<0.50	<0.50	2	<0.10
APL/UP-W2	OKUS-QC1	11/16/94	310	190	10	<0.50	62	4.7	77	NA
APL/UP-W2	APL-W12	02/22/95	490	360	20	<0.50	110	6.7	140	NA
APL/UP-W2	APL-W12	08/09/95	160	71	3.4	<0.50	<0.50	2.2	6	0.20
APL/UP-W1	APL-W11	11/29/95	1100	170	7.5	0.57	66	4.4	79	0.02
OKUS-W1	OKUS-W11	02/27/96	330	<50	<0.50	<0.50	<0.50	<0.50	ND	NA
OKUS-W1	OKUS-W11	05/30/96	570	<50	<0.50	<0.50	<0.50	<0.50	ND	NA
OKUS-W1	OKUS-W11	08/27/96	330	<50	<0.50	<0.50	<0.50	<0.50	ND	<0.10
TRIP BLANKS										
UPMF	OAK-FB 1	07/16/93	NA	NA	ND	ND	ND	ND	ND	NA
UPMF	OAK-TB 2	07/16/93	NA	NA	ND	ND	ND	ND	ND	NA
UPMF	TB-1	08/27/93	NA	NA	ND	ND	ND	ND	ND	NA
UPMF	TB-2	08/27/93	NA	NA	ND	ND	ND	ND	ND	NA
UPMF	TB-1	11/12/93	NA	NA	ND	ND	ND	ND	ND	NA
UPMF	TB-1	08/24/94	NA	NA	ND	ND	ND	ND	ND	NA
UPMF	TB-1	11/16/94	NA	NA	NA	NA	NA	NA	NA	NA
UPMF	TB-1	02/22/95	NA	ND	ND	ND	ND	ND	ND	NA
UPMF	TB-1	06/22/95	NA	ND	ND	ND	ND	ND	ND	NA
UPMF	TB-1	08/09/95	NA	ND	ND	ND	ND	ND	ND	NA
UPMF	TRIP BLANK	11/29/95	NA	ND	ND	ND	ND	ND	ND	NA
UPMF	TRIP BLANK	02/27/96	NA	ND	ND	ND	ND	ND	ND	NA
UPMF	TRIP BLANK	05/29/96	NA	ND	ND	ND	ND	ND	ND	NA
UPMF	TRIP BLANK	08/27/96	NA	ND	ND	ND	ND	ND	ND	NA

ND – Not Detected
NA – Not Analyzed
BRK – Bottle broken during shipment
TPH – Total Petroleum Hydrocarbons
mg/L – milligram per liter
ug/L – microgram per liter
TPH/D – anaylzed using EPA Method 8015 Mod.
TPH/G – anaylzed using EPA Method 8015 Mod.
BTEX – analyzed using EPA Method 8020
As – analyzed using EPA Method 7060



ADAPTED FROM U.S.G.S. 7.5' SERIES QUADRANGLE OAKLAND WEST, CALIFORNIA

LOCMAP

North

0 2000

FEET

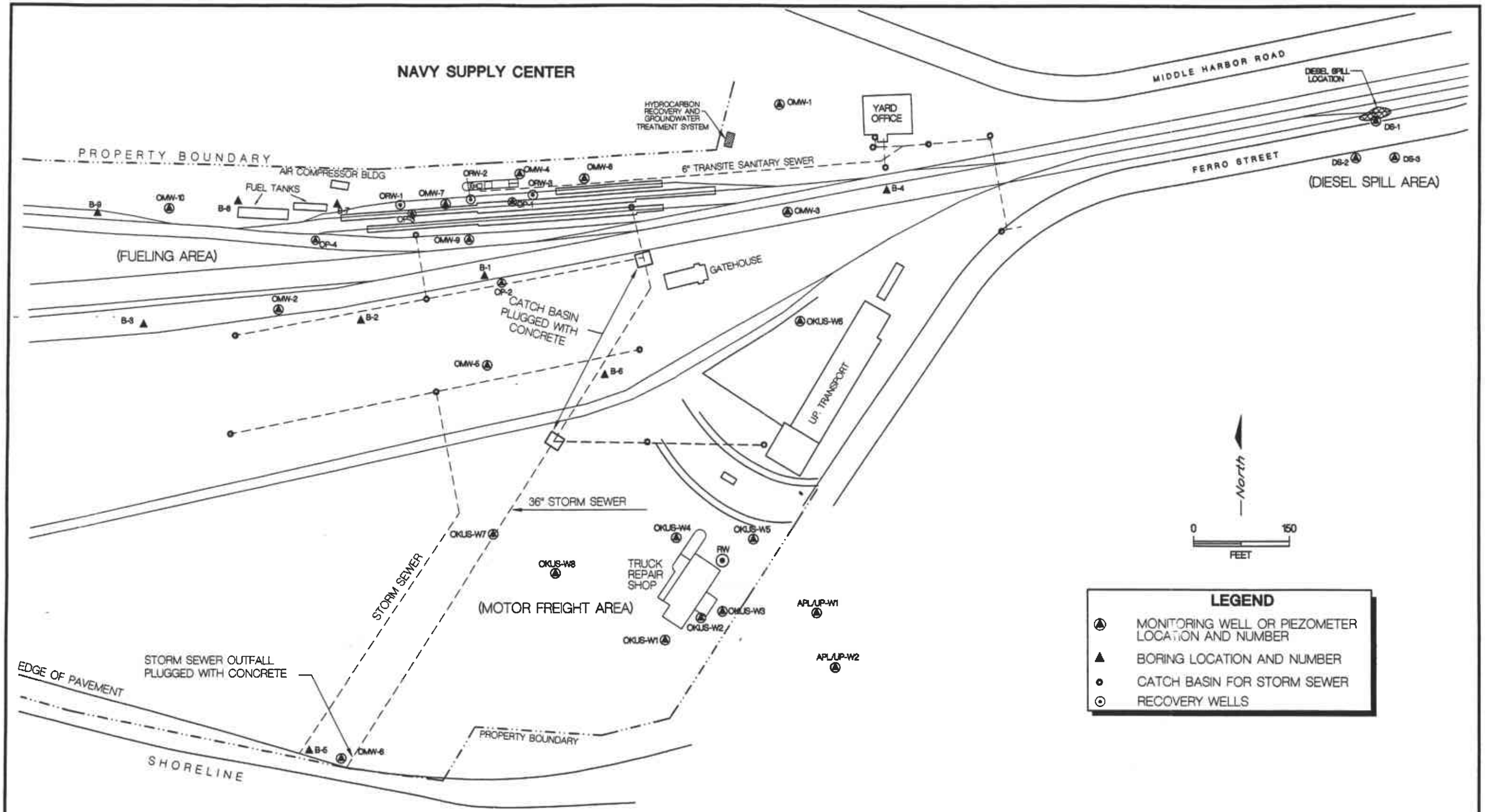
USPCI

A LAIDLAW COMPANY

UP MOTOR FREIGHT FACILITY-OAKLAND, CA

FIGURE 1
SITE LOCATION MAP

SCALE	DATE
1" = 2000'	6/27/96



BY	DATE
DRAWN CJJ	10/24/96
CHECKED	
APPROVED	
APPROVED	
APPROVED	

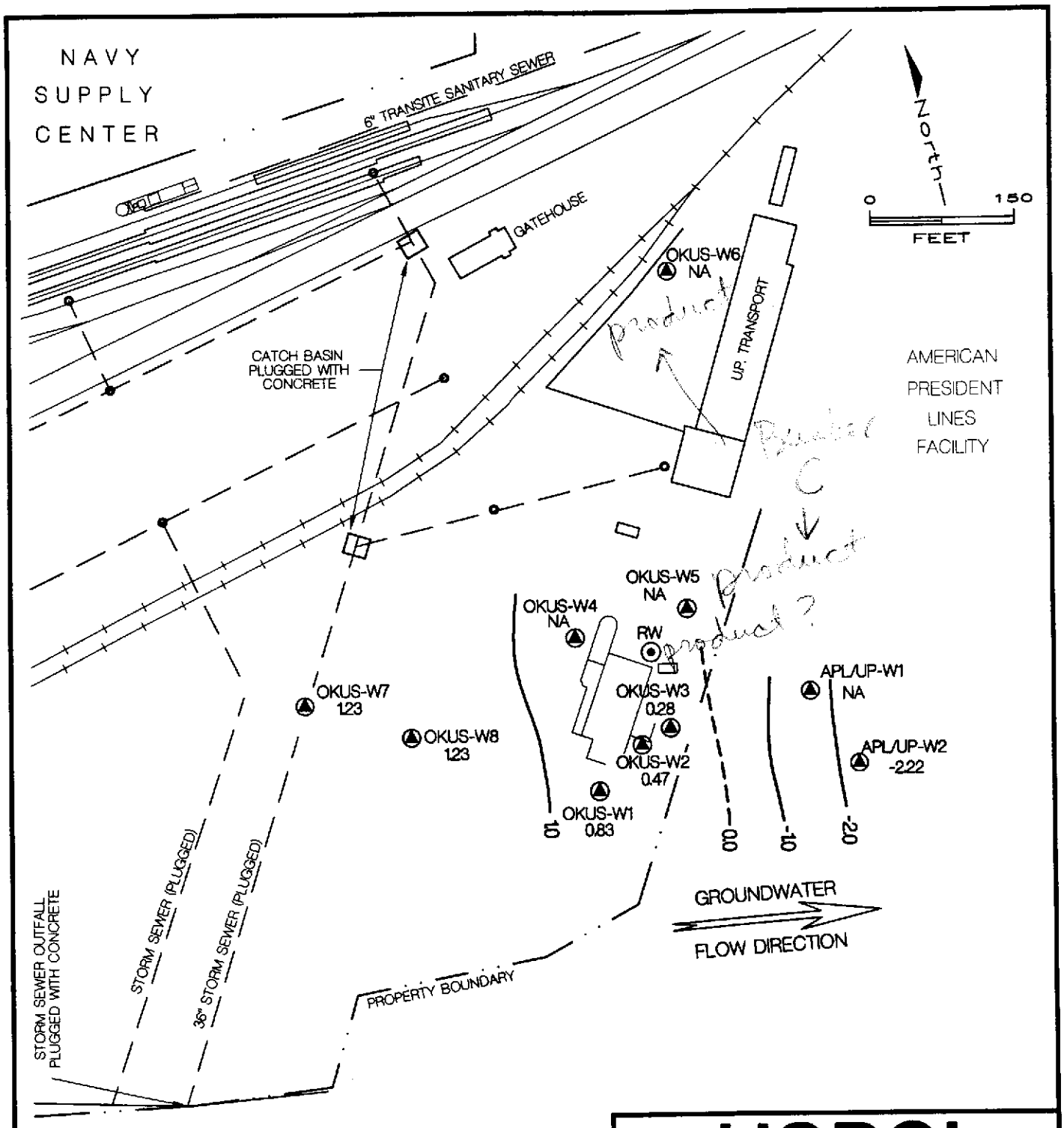
USPCI
A LAIDLAW COMPANY

UPRR TOFC RAILYARD
UPMF REPAIR SHOP- OAKLAND, CALIFORNIA

FIGURE 2
SITE VICINITY MAP

SCALE: 1" = 150'

DWG. NO: 96120-861



LEGEND

OKUS-W1 0.39	MONITOR WELL LOCATION AND NUMBER WITH GROUNDWATER ELEVATION
	RECOVERY WELL
	CATCH BASIN FOR STORM SEWER
0	GROUNDWATER ELEVATION CONTOUR (FEET RELATIVE TO MEAN SEA LEVEL)
NA	NOT AVAILABLE

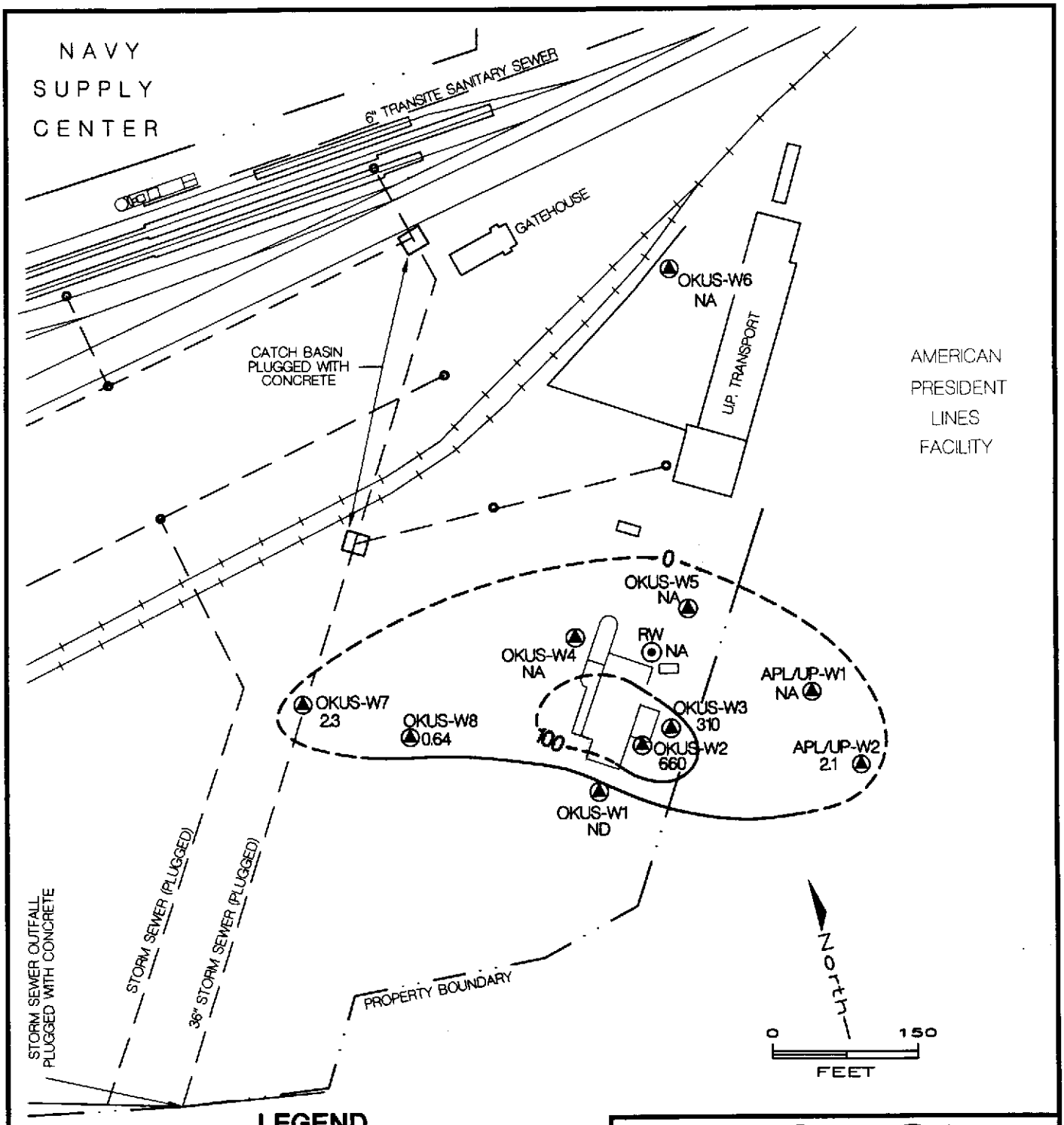
96120-771

USPCI
A LAIDLAW COMPANY

UPMF REPAIR SHOP-OAKLAND, CALIFORNIA

FIGURE 3
GROUNDWATER ELEVATION MAP (8/96)

SCALE	APPROVED/DATE
1" = 150'	10/10/96



LEGEND

OKUS-W8 4.0	MONITOR WELL LOCATION AND NUMBER WITH TOTAL DISSOLVED BTEX CONCENTRATION ug/L
RW	RECOVERY WELL
	CATCH BASIN FOR STORM SEWER
100	TOTAL BTEX DISTRIBUTION CONTOUR; DASHED WHERE INFERRED
ND	NOT DETECTED
NA	NOT ANALYZED

NOTE: ALL ANALYTICAL RESULTS IN µg/L

96120-772

USPCI
A LAIDLAW COMPANY

UPMF REPAIR SHOP-OAKLAND, CALIFORNIA

FIGURE 4
DISSOLVED PHASE BTEX DISTRIBUTION (8/96)

SCALE: 1" = 150'

APPROVED/DATE 10/10/96

APPENDIX A

FLUID-LEVEL MEASUREMENTS AND SAMPLE COLLECTION LOGS

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well No. OKUS-W1

Well Depth: (Below MP): **18.70 Feet**

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Ground Water (Below MP): **8.34 Feet** | Sample ID No. **OKUS-W1**

Method Of Well Development: | Time: **11:45**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): **9.17 Feet**

■ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: **6.85 Feet**

Sampling Collection Method: | Sample Appearance: **Clear**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: **Light product**

■ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any):

○ ABS Plastic ○ PVC ● HDPE plastic disposable

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed: Probe

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: **TPH-Gasoline, , TPH-Diesel 8020 BTEX, Arsenic**

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
11:17	Begin well					
11:23	7.2	1400	21.7		1.75	
11:28	7.2	1700	21.7		3.50	
11:37	7.4	1800	21.2		5.25	
11:45	Sample well					

At Least 3 Well Bore Volumes Were Evacuated Before Sampling Discharge Rate = GPM x 0.00223 = cfs

Comments: **(18.70 - 8.34) * 0.16 = 1.658 or about 1.75 gallons per volume**

Duplicate sample labelled OKUS-W11 was taken at 11:55

[Comments may continue on back]

Form Completed By: **Mark McCormick** Witnessed By:

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well Depth: (Below MP): **22.33 Feet**

Well No. OKUS-W2

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Ground Water (Below MP): **9.24 Feet** | Sample ID No. **OKUS-W2**

Method Of Well Development: | Time: **12:40**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): 9.71 Feet

■ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: 7.05 Feet

Sampling Collection Method: | Sample Appearance: **Lightly turbid, very light yellow**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: **Moderate - strong product**

■ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any):

○ ABS Plastic ○ PVC ● HDPE plastic disposable

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed: Probe

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: **TPH-Gasoline, TPH-Diesel, 8020 BTEX, Arsenic**

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
12:10	Begin well					
12:20	6.9	4200	21.0		2.25	
12:25	6.6	4400	20.8		4.50	
12:30	6.9	4600	21.1		6.75	
12:40	Sample well					

At Least 3 Well Bore Volumes Were Evacuated Before Sampling Discharge Rate = GPM x 0.00223 = cfs

Comments: **(22.33 - 9.24) * 0.16 = 2.094 or about 2.25 gallons per volume**

[Comments may continue on back]

Form Completed By: **Mark McCormick** Witnessed By:

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well Depth: (Below MP): **22.09 Feet**

Well No. OKUS-W3

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Ground Water (Below MP): **9.52 Feet** | Sample ID No. **OKUS-W3**

Method Of Well Development: | Time: **13:35**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): 9.80 Feet

■ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: 6.55 Feet

Sampling Collection Method: | Sample Appearance: **Lightly turbid, very light yellow color**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: **Strong product**

■ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any): Water is reactive

○ ABS Plastic ○ PVC ● HDPE plastic disposable

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed: Probe

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: **TPH-Gasoline, TPH-Diesel, 8020 BTEX, Arsenic**

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
13:00	Begin well					
13:11	7.0	4000	21.1		2.00	
13:16	6.9	4400	21.2		4.00	
13:22	6.8	4100	21.2		6.25	
13:35	Sample well					

At Least 3 Well Bore Volumes Were Evacuated Before Sampling Discharge Rate = GPM x 0.00223 = cfs

Comments: **(22.09 - 9.52) * 0.16 = 2.011 or about 2.0 gallons per volume**

TPH - Diesel sample X 3 for MS/MSD

[Comments may continue on back]

Form Completed By: **Mark McCormick** Witnessed By:

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well Depth: (Below MP): **20.69 Feet**

Well No. OKUS-W4

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Ground Water (Below MP): **Not measured (see comments below** | Sample ID No. **OKUS-W4**

Method Of Well Development: | Time: **09:30**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): 7.11 Feet

☐ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: 2.11 Feet

Sampling Collection Method: | Sample Appearance: N/A

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: N/A

☐ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any): Well inaccessable

○ ABS Plastic ○ PVC ○ HDPE plastic disposable

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed:

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: **None**

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
WELL NOT	SAMPLED					

At Least 3 Well Bore Volumes Were Evacuated Before Sampling | Discharge Rate = GPM x 0.00223 = cfs

Comments: **The well head is no longer accessable due to severe damage by UPMF heavy equipment and the subsequent repaving of the area.**

[Comments may continue on back]

Form Completed By: **Mark McCormick** | Witnessed By:

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well No. OKUS-W5

Well Depth: (Below MP): **21.00 Feet**

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Product (Below MP): **9.44 Feet (See comments)** | Sample ID No. **N/A**

Method Of Well Development: | Time: **09:20**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): 9.25 Feet

☐ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: 5.95 Feet

Sampling Collection Method: | Sample Appearance: **N/A**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: **N/A**

☐ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any): Product in well water

○ ABS Plastic ○ PVC

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed: Probe

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: **None**

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
WELL NOT	SAMPLED					

At Least Well Bore Volumes Were Evacuated Before Sampling Discharge Rate = GPM x 0.00223 = cfs

Comments: **Product was noted as "Bunker C" type hydrocarbon. Depth to water measurement was not available.**

The well was not sampled because of the presence of phase-separated hydrocarbon.

[Comments may continue on back]

Form Completed By: **Mark McCormick** Witnessed By

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well No. OKUS-W6

Well Depth: (Below MP): **16.30 Feet**

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Product (Below MP): **5.82 Feet (See comments)** | Sample ID No. **N/A**

Method Of Well Development: | Time: **09:05**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): 7.29 Feet

☐ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: 2.29 Feet

Sampling Collection Method: | Sample Appearance: **N/A**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: **N/A**

☐ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any): Product in well water

○ ABS Plastic ○ PVC

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed: Probe

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: **None**

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
WELL NOT	SAMPLED					

At Least Well Bore Volumes Were Evacuated Before Sampling Discharge Rate = GPM x 0.00223 = cfs

Comments: **Product was noted as "Bunker C" type hydrocarbon. Depth to water measurement was not available.**

The well was not sampled because of the presence of phase-separated hydrocarbon.

[Comments may continue on back]

Form Completed By: **Mark McCormick** Witnessed By

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well Depth: (Below MP): **19.82 Feet**

Well No. OKUS-W7

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Ground Water (Below MP): **5.68 Feet** | Sample ID No. **OKUS-W7**

Method Of Well Development: | Time: **10:55**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): 7.4 Feet

■ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: 2.4 Feet

Sampling Collection Method: | Sample Appearance: **Clear/very slightly turbid, very light yellow**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: **Light product**

■ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any):

○ ABS Plastic ○ PVC ● HDPE plastic disposable

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed: Probe

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: **TPH-Gasoline, TPH-Diesel, 8020 BTEX, Arsenic**

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
10:25	Begin well					
10:33	7.1	3300	21.0		2.25	
10:37	7.2	3400	21.0		4.50	
10:42	7.2	3600	20.7		7.00	
10:55	Sample well					

At Least 3 Well Bore Volumes Were Evacuated Before Sampling Discharge Rate = GPM x 0.00223 = cfs

Comments: **(19.82 - 5.68) * 0.16 = 2.262 or about 2.25 gallons per volume**

[Comments may continue on back]

Form Completed By: **Mark McCormick** Witnessed By:

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well No. OKUS-W8

Well Depth: (Below MP): **14.84 Feet**

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Ground Water (Below MP): **5.52 Feet** | Sample ID No. **OKUS-W8**

Method Of Well Development: | Time: **09:43**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): 7.11 Feet

■ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: 2.11 Feet

Sampling Collection Method: | Sample Appearance: **Slightly turbid, light yellow**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: **Light product**

■ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any):

○ ABS Plastic ○ PVC ● HDPE plastic disposable

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed: Probe

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: **TPH-Gasoline, TPH-Diesel, 8020 BTEX, Arsenic**

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
09:43	Begin well					
09:51	7.2	4800	23.9		1.5	
09:55	7.1	4700	23.3		3.0	
09:59	7.2	4600	23.7		4.5	
10:10	Sample well					

At Least 3 Well Bore Volumes Were Evacuated Before Sampling Discharge Rate = GPM x 0.00223 = cfs

Comments: **(14.84 - 5.52) * 0.16 = 1.491 or about 1.5 gallons per volume**

[Comments may continue on back]

Form Completed By: **Mark McCormick** Witnessed By:

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well No. APL-W1

Well Depth: (Below MP): **21.87 Feet**

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Ground Water (Below MP): **Not measured (see comments below)** | Sample ID No. **APL-W1**

Method Of Well Development: | Time: 08:10

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): 7.11 Feet

☐ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: 2.11 Feet

Sampling Collection Method: | Sample Appearance: N/A

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: N/A

☐ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any): Well inaccessable

○ ABS Plastic ○ PVC ○ HDPE disposable

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed:

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: None

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
WELL NOT	SAMPLED					

At Least Well Bore Volumes Were Evacuated Before Sampling Discharge Rate = GPM x 0.00223 = cfs

Comments: **The well was inaccessable due to stacked container trailers resting on the well head. The sampler was unable to gauge or sample the well.**

[Comments may continue on back]

Form Completed By: **Mark McCormick** Witnessed By:

USPCI SAMPLING AND WELL STABLIZATION FORM

USPCI Project Name: **UPMF Oakland** | USPCI Project Number: **96120-844**

Measuring Point (MP) Location **Top of casing**

Well Depth: (Below MP): **11.06 Feet**

Well No. APL-W2

Casing diameter: **2 Inches** | Sampling Date: **08/27/96**

Depth To Ground Water (Below MP): **9.53 Feet** | Sample ID No. **APL-W2**

Method Of Well Development: | Time: **08:40**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump | Riser Elevation (MP): 7.62 Feet

■ Bailer ☐ Centrifugal Pump ☐ Other | Top of Screen Elevation: 2.62 Feet

Sampling Collection Method: | Sample Appearance: **Clear**

☐ Tap ☐ Submersible Pump ☐ Bladder Pump Sample | Odor: **Light product**

■ Bailer Type: ○ Teflon ○ Stainless Steel | Sampling Problems (if any):

○ ABS Plastic ○ PVC ● HDPE disposable

Pump Intake Or Bailer Set At _____ Feet Below MP | Decontamination Performed: Probe

Tubing Type (if Used):

Tubing Used for: ☐ Sample Collection ☐ Well Development/Field Tests | Samples Collected: **TPH-Gasoline, TPH-Diesel, 8020 BTEX, Arsenic**

Time	pH (Units)	Temperature Corrected Conductance (umho/cm)	Temperature (Centigrade)	Water Level (Nearest 0.01 Ft.)	Cumulative Volume of Water Removed From well (Gallons)	Pumping Rate in Gallons/Minute (GPM)
08:15	Begin well					
08:22	7.8	2200	19.7		0.25	
08:25	7.9	2300	19.8		0.50	
08:30	7.8	2300	19.8		0.75	
08:40	Sample well					

At Least **3** Well Bore Volumes Were Evacuated Before Sampling Discharge Rate = GPM x 0.00223 = cfs

Comments: **(11.06 - 9.53) * 0.16 = 0.245 or about 0.25 gallons per volume**

[Comments may continue on back]

Form Completed By: **Mark McCormick** Witnessed By:

APPENDIX B

ANALYTICAL REPORTS

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

U.S.P.C.I./Laidlaw
5665 Flatiron Pkwy
Boulder, CO 80301
Attention: Denton Mauldin

Client Project ID: UP Motor Freight #96120-844
Sample Matrix: Water
Analysis Method: EPA 5030/8015 Mod./8020
First Sample #: 608-2196

Sampled: Aug 27, 1996
Received: Aug 27, 1996
Reported: Sep 17, 1996

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 608-2196 APL-W2	Sample I.D. 608-2197 OKUS-W8	Sample I.D. 608-2198 OKUS-W7	Sample I.D. 608-2199 Trip Blank	Sample I.D. 608-2200 OKUS-W1	Sample I.D. 608-2201 OKUS-W11
QC Batch Number:		GC090996 802005A	GC090996 802005A	GC090996 802005A	GC090996 802005A	GC090996 802005A	GC090996 802005A
Purgeable Hydrocarbons	50	N.D.	150	70	N.D.	N.D.	N.D.
Benzene	0.50	1.1	0.64	2.3	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	1.0	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	Gasoline & Unidentified Hydrocarbons >C8	Gasoline & Unidentified Hydrocarbons >C8	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	9/9/96	9/9/96	9/9/96	9/9/96	9/9/96	9/9/96
Instrument Identification:	HP-5	HP-5	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	81	83	84	95	85	85

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Melissa A. Brewer

Melissa A. Brewer
Client Services Representative

6082196.UUU <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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U.S.P.C.I./Laidlaw	Client Project ID:	UP Motor Freight #96120-844	Sampled: Aug 27, 1996
5665 Flatiron Pkwy	Sample Matrix:	Water	Received: Aug 27, 1996
Boulder, CO 80301	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: Sep 17, 1996
Attention: Denton Mauldin	First Sample #:	608-2202	

QC Batch Number: GC090996 GC090996
802005A 802005A

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 608-2202 OKUS-W2	Sample I.D. 608-2203 OKUS-W3
Purgeable Hydrocarbons	50	6,700	3,100
Benzene	0.50	240	170
Toluene	0.50	65	37
Ethyl Benzene	0.50	170	64
Total Xylenes	0.50	180	36
Chromatogram Pattern:		Gasoline & Discrete Peaks	Gasoline & Discrete Peaks

Quality Control Data

Report Limit Multiplication Factor:	20	10
Date Analyzed:	9/9/96	9/9/96
Instrument Identification:	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	79	80

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Melissa A. Brewer

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Client Services Representative

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Sequoia Analytical

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U.S.P.C.I./Laidlaw
5665 Flatiron Pkwy
Boulder, CO 80301
Attention: Denton Mauldin

Client Project ID: UP Motor Freight #96120-844
Sample Matrix: Water
Analysis Method: EPA 3510/8015 Mod.
First Sample #: 608-2196

Sampled: Aug 27, 1996
Received: Aug 27, 1996
Reported: Sep 17, 1996

QC Batch Number:	SP083096	SP083096	SP083096	SP083096	SP083096	SP083096
	8015EXB	8015EXB	8015EXB	8015EXB	8015EXB	8015EXB

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 608-2196 APL-W2	Sample I.D. 608-2197 OKUS-W8	Sample I.D. 608-2198 OKUS-W7	Sample I.D. 608-2200 OKUS-W1	Sample I.D. 608-2201 OKUS-W11	Sample I.D. 608-2202 OKUS-W2
Extractable Hydrocarbons	50	320	2,100	1,700	440	330	3,100
Chromatogram Pattern:		Diesel & Unidentified Hydrocarbons <C15	Diesel	Diesel	Diesel & Unidentified Hydrocarbons >C25	Diesel & Unidentified Hydrocarbons >C25	Diesel & Unidentified Hydrocarbons <C15

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	8/30/96	8/30/96	8/30/96	8/30/96	8/30/96	8/30/96
Date Analyzed:	9/4/96	9/4/96	9/4/96	9/4/96	9/4/96	9/4/96
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3A	HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

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Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

U.S.P.C.I./Laidlaw
5665 Flatiron Pkwy
Boulder, CO 80301
Attention: Denton Mauldin

Client Project ID: UP Motor Freight #96120-844
Sample Matrix: Water
Analysis Method: EPA 3510/8015 Mod.
First Sample #: 608-2203

Sampled: Aug 27, 1996
Received: Aug 27, 1996
Reported: Sep 17, 1996

QC Batch Number: SP083096

8015EXB

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 608-2203 OKUS-W3
Extractable Hydrocarbons	50	2,700
Chromatogram Pattern:		Diesel & Unidentified Hydrocarbons <C15

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Extracted:	8/30/96
Date Analyzed:	9/3/96
Instrument Identification:	HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Melissa A. Brewer

Melissa A. Brewer
Client Services Representative

6082196.UUU <4>

Sequoia Analytical

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U.S.P.C.I./Laidlaw
5665 Flatiron Pkwy
Boulder, CO 80301
Attention: Denton Mauldin

Client Project ID: UP Motor Freight #96120-844
Sample Descript: Water
Analysis for: Arsenic
First Sample #: 608-2196

Sampled: Aug 27, 1996
Received: Aug 27, 1996
Extracted: Aug 30, 1996
Analyzed: Sep 4, 1996
Reported: Sep 17, 1996

LABORATORY ANALYSIS FOR: Arsenic

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L	QC Batch Number	Instrument ID
608-2196	APL-W2	0.10	N.D.	ME0830962007MDB	MV-3
608-2197	OKUS-W8	0.10	N.D.	ME0830962007MDB	MV-3
608-2198	OKUS-W7	0.10	N.D.	ME0830962007MDB	MV-3
608-2200	OKUS-W1	0.10	N.D.	ME0830962007MDB	MV-3
608-2201	OKUS-W11	0.10	N.D.	ME0830962007MDB	MV-3
608-2202	OKUS-W2	0.10	0.17	ME0830962007MDB	MV-3
608-2203	OKUS-W3	0.10	0.20	ME0830962007MDB	MV-3

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Melissa A. Brewer

Melissa A. Brewer
Client Services Representative

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Sequoia Analytical

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U.S.P.C.I./Laidlaw
5665 Flatiron Pkwy
Boulder, CO 80301
Attention: Denton Mauldin

Client Project ID: UP Motor Freight #96120-844
Matrix: Liquid
QC Sample Group: 6082196-203
Reported: Sep 17, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Arsenic
QC Batch#:	GC090996	GC090996	GC090996	GC090996	SP083096	ME083096
	802005A	802005A	802005A	802005A	8015EXB	2007MDB
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015	EPA 200.7
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 3510	EPA 200.7
Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	J. Dinsay	J. Kelly
MS/MSD #:	6081872	6081872	6081872	6081872	6082203	6081859
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	2700 µg/L	N.D.
Prepared Date:	9/9/96	9/9/96	9/9/96	9/9/96	8/30/96	8/30/96
Analyzed Date:	9/9/96	9/9/96	9/9/96	9/9/96	9/3/96	9/4/96
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A	MV-3
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	1.0 mg/L
Result:	16	17	18	52	2200	1.1
MS % Recovery:	80	85	90	87	-	110
Dup. Result:	18	18	19	56	2600	1.1
MSD % Recov.:	90	90	95	93	-	110
RPD:	12	5.7	5.4	7.4	17	0.0
RPD Limit:	0-25	0-25	0-25	0-25	0-50	0-20

LCS #:	2LCS090996	2LCS090996	2LCS090996	2LCS090996	LCS083096	LCS083096B
Prepared Date:	9/9/96	9/9/96	9/9/96	9/9/96	8/30/96	8/30/96
Analyzed Date:	9/9/96	9/9/96	9/9/96	9/9/96	8/30/96	9/4/96
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5	HP-3A	MV-3
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	1.0 mg/L
LCS Result:	15	15	16	48	300	1.0
LCS % Recov.:	75	75	80	80	100	100

MS/MSD LCS Control Limits	70-130	70-130	70-130	70-130	50-150	80-120

SEQUOIA ANALYTICAL, #1271

Melissa A. Brewer

Melissa A. Brewer
Client Services Representative

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600 FAX (415) 364-9233
819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Company Name: USPCI / Laidlaw	Project Name: UP Motor Freight #96120-844
Address: 5665 Flatiron Pkwy	Billing Address (if different):
City: Boulder State: CO Zip Code: 80301	
Telephone: 303 938 5500 FAX #: 303 938 5520	P.O. #: 96120-844
Report To: Denton Mauldin Sampler: Mark McCormick	QC Data: ☐ Level D (Standard) ☒ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours

☐ Drinking Water ☐ Waste Water ☒ Other GW

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	8020 BTEX	MOD 8015 TPH-Gasoline	MOD 8015 TPH-Diesel	Dissolved Arsenic					Comments
1. APL-W2	8/27/96 0840	GW	3	VOA	6082196	X	X					A,E		
2.			1	1L AMBER				X						
3.			1	1L PLASTIC					X					Filtered in Field
4. OKUS-W8	1040	M3	3	VOA	6082197	X	X							
5.			1	1L AMBER				X						
6.			1	1L PLASTIC					X					Filtered in Field
7. OKUS-W7	1055		3	VOA	6082198	X	X							
8.			1	1L AMBER				X						
9.			1	1L PLASTIC					X					
10. TRIP BLANK	—	—	1	VOA	6082199	X	X							

Relinquished By:	Date: 8/27/96	Time: 1570	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 8/27/96	Time: 15:10

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: _____

Pink - Client
Yellow - Sequoia
White - Sequoia

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Company Name:	Project Name:
Address: SAME	Billing Address (if different): SAME
City: State: Zip Code:	
Telephone: FAX #:	P.O. #:
Report To: Sampler:	QC Data: ☐ Level D (Standard) ☒ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours

☐ Drinking Water ☐ Waste Water ☒ Other GW

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	BOZO BTEX	MOD 8015 TPH-GASOLINE	MOD 8015 TPH-Diesel	Dissolved Arsenic				Comments
1. OKUS-W1	8/27/96 1145	GW	3	VOA		X	X			6082200		A-E	
2.			1	1L AMBER				X					
3.			1	1L PLASTIC					X				Filtered in Field
4. OKUS-W11	1155		3	VOA		X	X			6082201			
5.			1	1L AMBER				X					
6.			1	1L PLASTIC					X				Filtered in Field
7. OKUS-W2	1240		3	VOA		X	X			6082202			
8.			1	1L AMBER				X					
9.			1	1L PLASTIC					X				Filtered in Field
10.													

Relinquished By:	Date: 8/27/96	Time: 1510	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 8/29/96	Time: 15:10

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____

Pink - Client
Yellow - Sequoia
White - Sequoia

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

[redacted]80 C[redacted]pea[redacted]rive [redacted]wod[redacted]y, C[redacted]063[redacted]5) 3[redacted]600 [redacted](415)[redacted]
☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
☒ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Company Name:	Project Name:
Address: SAME	Billing Address (if different):
City: State: Zip Code:	SAME
Telephone: FAX #:	P.O. #:
Report To: Sampler:	QC Data: ☐ Level D (Standard) ☒ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours

☐ Drinking Water ☐ Waste Water ☒ Other GW

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	BOZO BTEX	MOD. BOILS TPH-Gasoline	MOD. BOILS TPH-Diesel w/ Silica Gel	Dissolved Arsenic					Comments
1. OKUS-W3	8/27/96 1335	GW	3	VOA		X	X			6082203			A-6	
2.			3	1L AMBER				X						USE FOR MS/MSD
3.			1	1L PLASTIC					X					Filtered in Field
4.														
5.														
6.														
7.														
8.														
9.														
10.														

Relinquished By:	Date: 8/27/96	Time: 1510	Received By:	Date: Time:
Relinquished By:	Date:	Time:	Received By:	Date: Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 8/27/96 Time: 15:10

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____

Pink - Client
Yellow - Sequoia
White - Sequoia