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June 16, 2005

5282.01

California Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

Attention: Mr. Ron Allen

Subject: Groundwater Monitoring Report; Second Quarter 2005
Humboldt Petroleum, Incorporated; Crescent City Shell
1006 North Highway 101, Crescent City, California
CRWQCB Case No. 1TDN026

Dear Mr. Allen:

LACO ASSOCIATES (LACO) presents the results of groundwater monitoring for the second quarter of 2005 at 1006 North Highway 101, Crescent City, California. This report was prepared for Humboldt Petroleum, Incorporated in accordance with the requirements of the Pay-for-Performance agreement.

We refer you to the text of the report regarding details of this groundwater monitoring event. Please call or email if you have any questions or concerns.

Sincerely,
LACO ASSOCIATES

Gwendolyn Erickson
Staff Geologist

Christine Manhart, PG
PG 7576, Exp. 03/31/06

PROFESSIONAL GEOLOGIST
CHRISTINE SHIVELLE MANHART
No. 7576
Exp. 03/31/06
STATE OF CALIFORNIA

GJE:cs

Attachments

cc: Jim Seiler, HPI (electronically sent)

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GROUNDWATER MONITORING REPORT
SECOND QUARTER 2005

Humboldt Petroleum, Incorporated; Crescent City Shell
1006 North Highway 101, Crescent City, California
CRWQCB Case No. 1TDN026; LACO Project No. 5282.01

EXECUTIVE SUMMARY

This report presents the results of second quarter 2005 groundwater monitoring for the Pay-for-Performance (PFP) project at the above-referenced site. On May 12, 2005, groundwater samples were collected for performance and quarterly monitoring. Concentration increases in xylenes and total petroleum hydrocarbons as diesel (TPHd) observed during the first quarter 2005 groundwater monitoring were attributed to an air compressor malfunction. The air compressor was subsequently rebuilt and additional groundwater samples were collected on March 15, 2005, to verify effect.

Contaminants of concern (COCs) include total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and TPHd. Generally, all wells continue to exhibit decreasing COC trends.

INTRODUCTION

The goal of PFP is to reduce the mass of the secondary source of the COCs through injection of ozone, thereby preventing discharge of TPHg, TPHd, BTEX, and the fuel oxygenate methyl tertiary butyl ether (MTBE) to shallow groundwater. Mass reduction of the secondary source is determined using dissolved-phase concentrations from key and perimeter monitoring wells as a proxy for sorbed-phase mass. During this quarter, groundwater samples were collected from key and perimeter monitoring wells to assess dissolved-phase contaminant concentrations and trends on-site.

Please refer below to Tables A and B, respectively, for the current groundwater monitoring regimes of the March 15 and May 12, 2005, sampling events. Monitoring well sampling protocol is included in LACO's *Standard Operating Procedures* on file at your office. A location and site map are provided as Figures 1 and 2, respectively.

Table A: Sampling Regime for March 15, 2005						
MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS ORGANICS	SAMPLING SCHEDULE
MW1	5-15	5.71	DHP	pH, T, ECw, ORP, DO	TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, TPHd w/ SGC, Cr	Verification samples
MW5	4-19	5.98				
OW3	5-10	5.82	CAM			
OW4	5-10	6.02				
OW5	5-10	5.86				

Table B: Sampling Regime for May 12, 2005						
MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS ORGANICS	SAMPLING SCHEDULE
MW1	5-15	3.37	DHP	pH, T, ECw, ORP, DO	TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, TPHd w/ SGC, Cr	Quarterly
MW2	5-15	2.29				
MW3	5-15	3.72			TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, TPHd w/ SGC	
MW4	4-14	3.28			TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, TPHd w/ SGC, Cr	
MW5	4-19	3.51				
MW6	10-14	5.05	CAM			
MW7	10-15	3.99				
MW8	10-15	3.35				
OW1	5-10	4.10			TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, TPHd w/ SGC	
OW2	5-10	4.18				
OW3	5-10	3.91			TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, TPHd w/ SGC, Cr	
OW4	5-10	3.57				
OW5	5-10	3.52				
PZ1	5-15	3.38	---		---	
DW	---	1.93	DHP		TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, TPHd w/ SGC	

A key to these tables is included as Attachment 1.

Additionally, vapor samples were collected from vapor points VP1, VP2, VP5, and VP6 on May 12, 2005. Vapor samples were not collected from VP3 and VP4 due to water in the vapor sampling lines. Vapor samples were collected with a vacuum pump into Tedlar bags. Samples were collected in laboratory-supplied containers and submitted to Air Toxics Ltd. under standard chain-of-custody protocols for analysis of:

- BTEX and MTBE by Method TO-14A

SITE CHRONOLOGY

An updated site chronology outlining sampling dates, and operation and maintenance of the ozone system is included as Attachment 2.

HYDRAULIC GRADIENT AND HYDROGEOLOGY

The aquifer identified in the vicinity of the subject property is primarily poorly graded sand overlain by approximately 5 feet of silty sand to sandy silt. The sandy silt unit extends to approximately 40 feet below ground surface (bgs), where it unconformably overlies the St. George formation (LACO, 2002). Soils at the site are typical of marine terrace deposits. Based on review of the Smith River Plain Groundwater Study, marine terrace deposits at the site are likely part of the Pleistocene Battery Formation (Department of Water Resources, 1987). The Smith River Plain Groundwater Study describes the Battery formation as the principal aquifer in the Crescent City area.

Groundwater is generally found at depths between approximately 0.5 to 13.5 feet. Calculated hydraulic gradients have been fairly consistently to the northeast and southeast. The site sits between two unnamed drainages, one located approximately 1,200 feet east, and one located approximately 2,500 feet south (Figure 1). These drainages likely dominate groundwater flow direction at the site.

Based on the well screen elevations on-site, separate gradients are generally determined using the monitoring wells (deeper screened intervals) and observation wells (shallow screened intervals). However, because some hydraulic head elevations may be influenced by subsurface anomalies (i.e., underground storage tank [UST] cavities, trenching, ozone sparging), the hydraulic head elevations may not be dependable. In addition, hydraulic gradients can vary across the site.

The potentiometric surface for the water measured in the deep wells was contoured from hydraulic head measurements using Surfer 7.0 software and is presented on Figure 3. Monitoring wells MW2, MW3, and MW4 were used to calculate the deep hydraulic gradient by the three-point method using elevation data collected during the May 12, 2005, sampling event.

The hydraulic gradient for deep aquifer during the May 12, 2005, sampling event is 0.35 percent in a N87°E direction (Figure 3).

The potentiometric surface for the water measured in the shallow wells was contoured from hydraulic head measurements using Surfer 7.0 software and is presented on Figure 4. Observation wells OW1, OW3, and OW4 were used to calculate the shallow hydraulic gradient by the three-point method using elevation data collected during the May 12, 2005, sampling event.

The hydraulic gradient for shallow aquifer during the May 12, 2005, sampling event is 1.2 percent in a S36°E direction (Figure 4).

LABORATORY RESULTS

Groundwater laboratory analytical results from the March 15 and May 12, 2005, quarterly sampling event are included below in Tables C and D. Performance monitoring sampling results are presented in Table 1. Field and laboratory intrinsic analyses are included as Table 2. Historical groundwater monitoring data is included as Table 3. Table 4 presents historical chromium analysis data. Current and historical vapor analysis data is included as Table 5. Field sampling data forms are included as Attachment 3, and copies of the current laboratory reports for this reporting period are included as Attachment 4. Charts 1 through 6 present concentration time trends in monitoring wells MW1, MW2, and MW5 through MW8.

Table C: Analytical Results for March 15, 2005								
WELL	TPHg (µg/l)	TPHd (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW1	**1,100**	**68**	**42**	**15**	**10**	**198**	**28**	**TAME = 8.7** Other oxygenates ND
MW5	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**4.9**	All oxygenates ND
OW3	**5,300**	**570**	**20**	**21**	**83**	**920**	**320**	**TAME = 85** **TBA = 800** Other oxygenates ND
OW4	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
OW5	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**2.5**	All oxygenates ND

Table D: Analytical Results for May 12, 2005								
WELL	TPHg (µg/l)	TPHd (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW1	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	**1.44**	ND <1.0	All oxygenates ND
MW2	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**4.4**	**Chromium=21** All oxygenates ND
MW3	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
MW4	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW5	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW6	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW7	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**5.2**	All oxygenates ND
MW8	**2,200**	**220**	**9.3**	ND<0.50	**32**	**14**	**3.3**	**TAME=1.7** All other oxygenates ND
OW1	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
OW2	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
OW3	**3,300**	**130**	**5.3**	**9.8**	**16**	**212**	ND<10	**TAME = 3.0** Other oxygenates ND
OW4	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
OW5	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
DW	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND

DISCUSSION OF GROUNDWATER RESULTS

Analytical results for wells sampled during the March verification sampling event appear to have dissolved TPHg concentration values lower than concentrations reported during the first quarter

2005 groundwater monitoring event with exception of observation well OW3, where the dissolved TPHg value was slightly increased but within the same order of magnitude. Notably, the elevated TPHg concentration observed in wells MW1 and OW4 have currently decreased below detection limits. Therefore, it appears that the air compressor failure was responsible for the short term increase in concentrations.

Analytical results for the May 2005 quarterly sampling event continue to exhibit a declining trend from samples collected during this time last year. However, the results reported in monitoring well MW8 during this quarter are unusual and represent the highest dissolved TPHg concentration reported since the ozone system initiation.

All dissolved chromium concentrations were below detection levels, except for monitoring well MW2 (21 μg/l). The detection limit for dissolved chromium was 10 μg/l.

Vapor results to date indicate BTEX constituents on the sampled points have decreased by three to four orders of magnitude since the initiation of the ISCO system to below detection limits. MTBE was slightly above the detection limit at vapor point VP2 (46 ppbv). The vapor sample from vapor point VP1 was not analyzed due to failure of the sample container during shipping.

REMEDIATION SYSTEM OPERATION AND MAINTENANCE

Pressure test field forms are included as Attachment 5. As of May 17, 2005, the ozone generator was operational for 10,864.26 hours. To date, ozone injection is approximately 100 kilograms.

Recently, the air compressor was significantly rebuilt. The piston, head seal, head ring seal, flapper valves, snubber, and pressure gauge were replaced. Manifold pressure has increased from an average of 24.5 pounds per square inch (psi) to 30.9 psi. Damaged tubing and fittings were replaced on Station 7.

RECOMMENDATIONS AND FUTURE WORK

Quarterly groundwater monitoring will continue as scheduled. The next sampling event is scheduled for August 2005.

As the remaining secondary source appears to be concentrated in two small areas (in the northeast driveway and near monitoring well MW6 and observation well OW3), LACO

recommends installing two perozone sparge points to treat the hydrocarbons remaining in those areas. The sparge points will inject a mixture of hydrogen peroxide and ozone with a mobile unit. The mixture of hydrogen peroxide and ozone is better than ozone at treating the heavier range TPHg components that currently hamper the site meeting remediation goals.

LIMITATIONS

LACO ASSOCIATES has conducted the services identified herein in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing in our area under similar conditions as this project. No other warranty or representation, express or implied, is included or intended for this document.

This report is an instrument of service of LACO ASSOCIATES and was prepared for, and intended for, the exclusive use of the client. The contents of this report may not be relied upon by any other party other than the client without express written permission of LACO ASSOCIATES.

This report's findings are based on conditions that existed on the dates indicated and in the specific locations where samples were taken. The findings herein should not be relied on to precisely represent conditions at any other time or location.

REFERENCES

Department of Water Resources, 1987. Smith River Plain Groundwater Study. State of California The Resources Agency Department of Water Resources Northern District. December, 1987

LACO, 2002. *Remedial Action Plan, Secondary Source* Humboldt Petroleum, Incorporated Crescent City Shell, 1006 N. Highway 101, Crescent City, CA Case No. 1TDN026; LACO Project No. 3503.05. Unpublished report. May 2002.

LIST OF FIGURES, TABLES, CHARTS, AND ATTACHMENTS

Figure 1: Location Map
Figure 2: Site Map
Figure 3: Deep-Hydraulic Gradient Map (5\12\05)
Figure 4: Observation - Hydraulic Gradient Map (5\12\05)

LIST OF FIGURES, TABLES, CHARTS, AND ATTACHMENTS (continued)

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Table 2 Intrinsics Analyses Monitoring Results
Table 3: Groundwater Elevation Data and Groundwater Analytical Results
Table 4: Chromium Analyses Results
Table 5: Results of Vapor Sample Analysis

Chart 1: Combined TPH, Benzene, and MTBE Concentrations in Groundwater in MW1
Chart 2: TPHg, TPHd, Benzene, and MTBE Concentrations in Groundwater in MW2
Chart 3: TPHg, Benzene, and MTBE Concentrations in Groundwater in MW5
Chart 4: TPHg, TPHd, Benzene, and MTBE Concentrations in Groundwater in MW6
Chart 5: TPHg, Benzene, and MTBE Concentrations in Groundwater in MW7
Chart 6: TPHg and MTBE Concentrations in Groundwater in MW8

Attachment 1: Key to Abbreviations
Attachment 2: Project Chronology
Attachment 3: Field Forms
Attachment 4: Current Laboratory Reports
Attachment 5: Ozone System Pressure Test Field Forms

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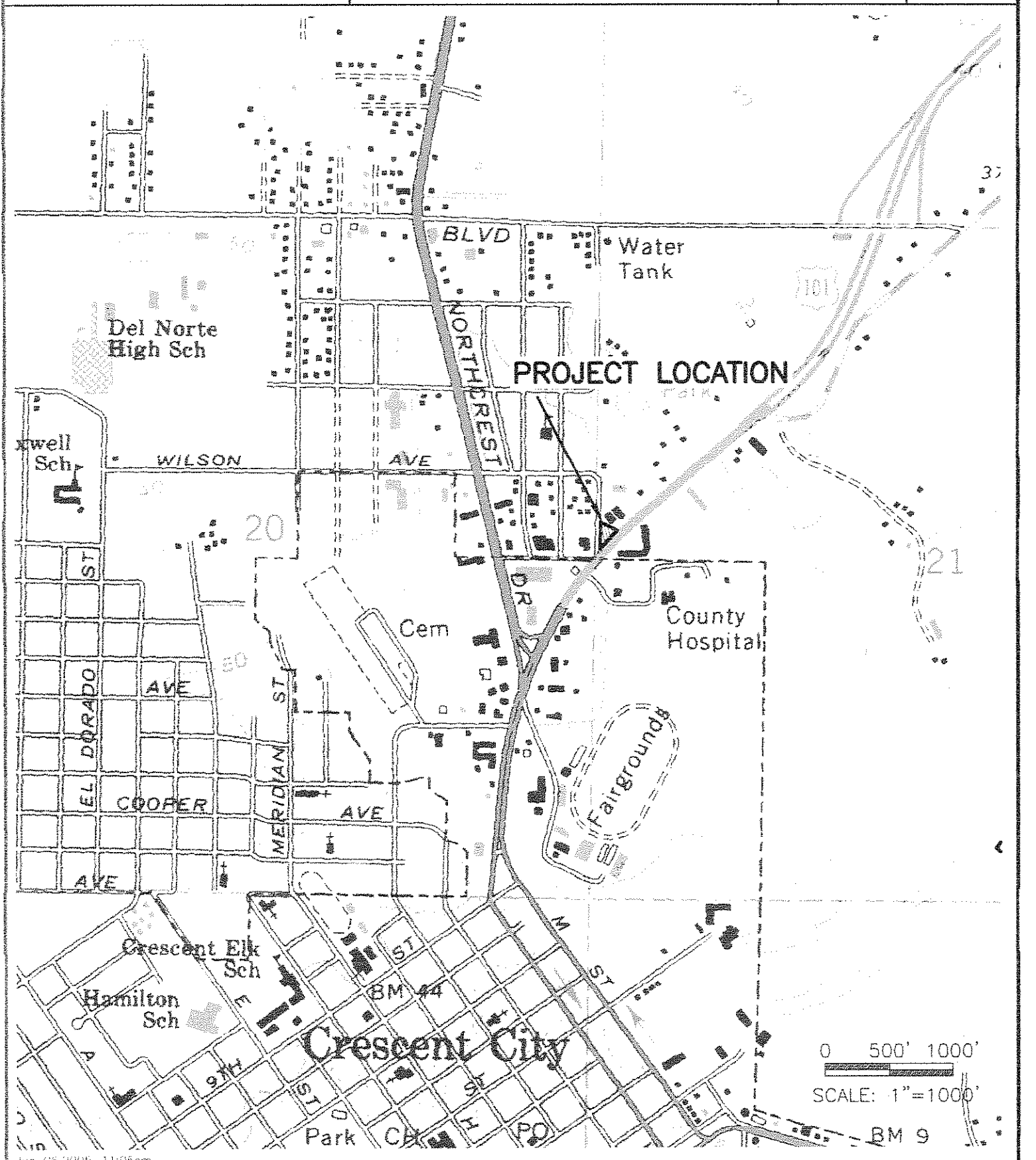
LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	HUMBOLDT PETROLEUM, INC.	DATE	6/06/05	1
	LOCATION	CRESCENT CITY SHELL	CHECK		JOB NO.
		LOCATION MAP	SCALE	1"=1000'	5282.01



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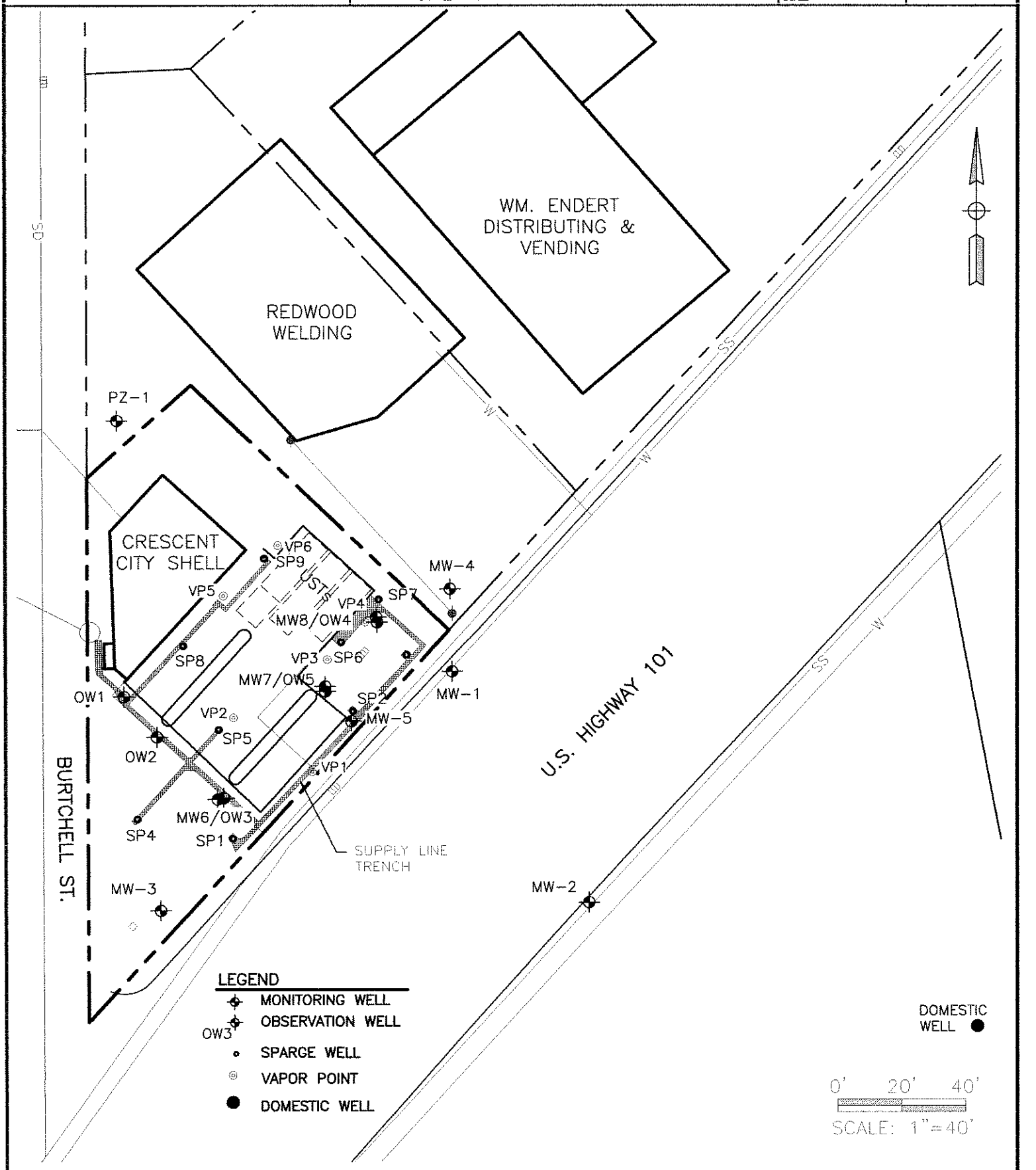
LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	HUMBOLDT PETROLEUM, INC	DATE	6/06/05	2
	LOCATION	CRESCENT CITY SHELL	CHECK		JOB NO.
		SITE MAP	SCALE	1"=40'	5282.01



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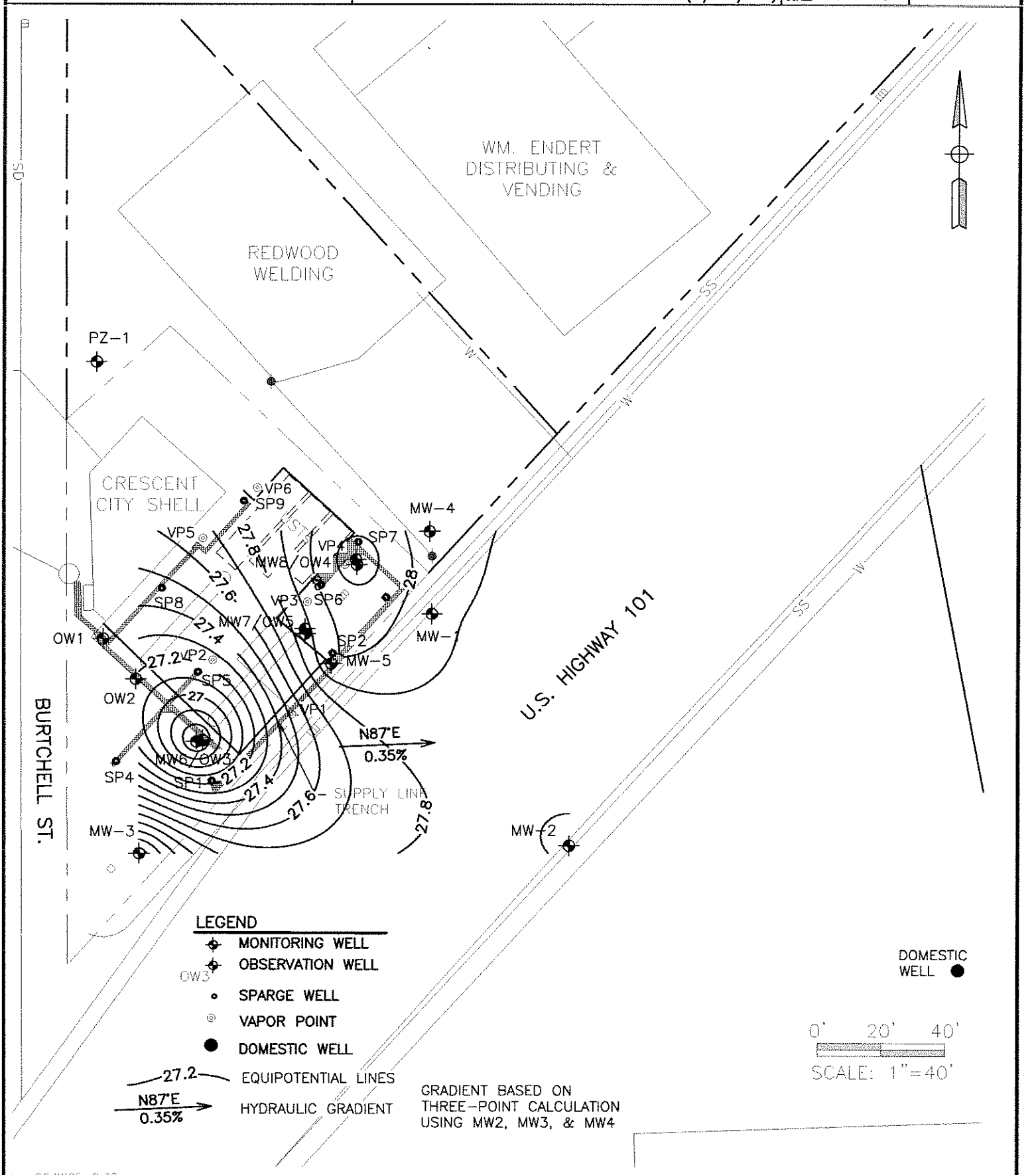
LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	HUMBOLDT PETROLEUM, INC	DATE	6/06/05	3
	LOCATION	CRESCENT CITY SHELL	CHECK		JOB NO.
		DEEP-HYDRAULIC GRADIENT MAP (5/12/05)	SCALE	1"=40'	5282.01



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LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT GROUNDWATER MONITORING REPORT	BY RJM	FIGURE 4
	CLIENT HUMBOLDT PETROLEUM, INC	DATE 6/06/05	
	LOCATION CRESCENT CITY SHELL	CHECK	JOB NO. 5282.01
	OBSERVATION-HYDRAULIC GRADIENT MAP (5/12/05)	SCALE 1"=40'	

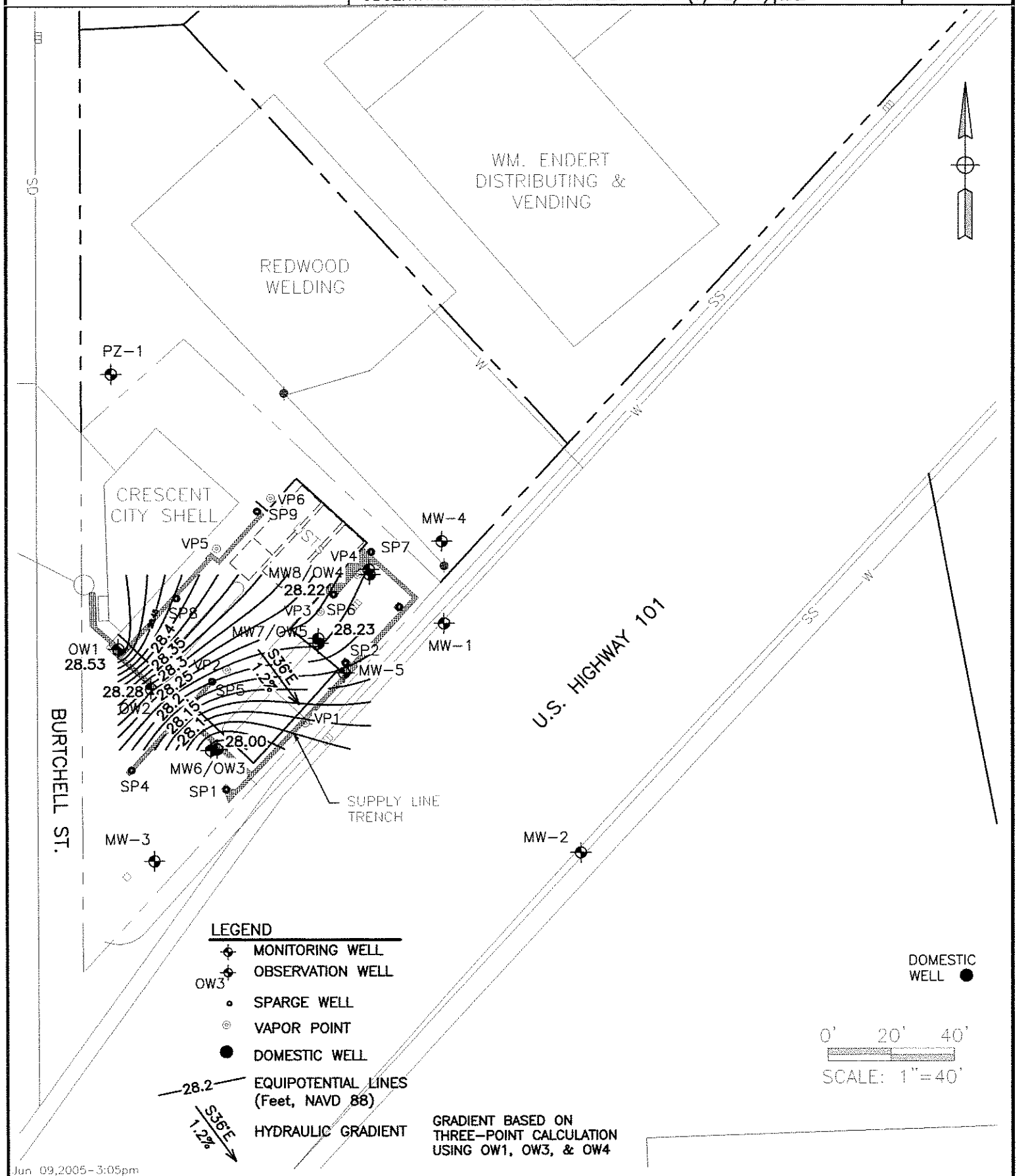

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TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
MW-1													
Baseline Data	**10/9/02-11/4/02**	**56,000**	**270,000**	**2,700**	**1,200**	**2,900**	**5,280**	1,200	220	220	ND<20	ND<20	---
	11/12/02	7,000	490	58	ND<25	ND<25	242	1,100	98	1,000	ND<50	ND<50	---
	11/27/02	870	970	ND<0.50	ND<0.50	2.0	2.0	740	57	460	1.4	ND<1.0	ND<2.0
	12/10/02	4,800	560	8.2	2.8	75	66	690	32	430	ND<5.0	ND<5.0	ND<2.0
	12/23/02	3,100	62	11.0	4.9	63	88	540	43	ND<100	1.2	ND<1.0	ND<2.0
	1/9/03	780	160	1.7	1.1	8.6	18	540	53	42	ND<1.0	ND<1.0	---
	1/30/03	200	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	310	18	ND<20	ND<1.0	ND<1.0	ND<2.0
	2/12/03	140	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	190	9.4	ND<20	ND<1.0	ND<1.0	ND<2.0
	3/12/03	100	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	8.8	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	42	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	1,200	380	15	4.4	16	184	72	17	26	ND<1.0	ND<1.0	ND<2.0
	7/16/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	ND<50	ND<50	ND<0.50	ND<0.50	1.3	1.1	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	ND<50	ND<50	ND<0.50	ND<0.50	0.5	1.1	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	2,200	140	110	11	18	95	75	18	45	ND<1.0	ND<1.0	---
	12/11/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.5	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.9	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	0.53	1.6	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	190	50	ND<0.50	ND<0.50	0.96	10.3	4.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND<50	ND<50	ND<0.50	ND<0.50	0.64	1.4	4.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	1,300	93	120	12	11	148	59	31	31	ND<1.0	ND<1.0	---
	7/27/04	4,900	380	440	69	91	530	72	24	46	ND<1.0	ND<1.0	---
	9/21/04	590	67	27	6.4	8.7	85	34	9.4	ND<10	ND<1.0	ND<1.0	---
	10/19/04	570	78	40	8	13	78	27	5.2	ND<10	ND<1.0	ND<1.0	---
	2/16/05	4,100	270	83	160	85	870	12	5.8	ND<10	ND<1.0	ND<1.0	---
	3/15/05	1,100	68	42	15	10	198	28	8.7	ND<10	ND<1.0	ND<1.0	---
	5/12/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.4	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
MW-2													
Baseline Data	**10/9/02-11/4/02**	**2,000**	**90**	**320**	**0.73**	ND<0.50	**0.57**	1,700	110	170	1.5	1.1	---
	11/12/02	5,700	75	1,500	1.7	ND<0.50	5.0	3,500	240	770	3.2	ND<10	---
	11/27/02	5,000	92	1,200	0.64	ND<0.50	2.4	3,300	200	850	3.1	ND<10	ND
	12/10/02	5,700	76	1,000	4.2	ND<2.5	5.3	3,100	190	600	ND<5.0	ND<5.0	ND<2.0
	12/23/02	430	ND<50	8.8	ND<0.50	0.61	0.82	90	4.9	ND<20	ND<1.0	ND<1.0	ND<2.0
	1/9/03	340	ND<50	1.3	ND<0.50	ND<0.50	ND<0.50	42	2.7	ND<20	ND<1.0	ND<1.0	---
	1/30/03	470	ND<50	1.0	ND<0.50	ND<0.50	0.59	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	2/12/03	580	ND<50	1.4	ND<0.50	ND<0.50	0.52	2.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	3/12/03	200	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<10	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	200	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	84	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	77	ND<50	1.1	0.66	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	65	ND<50	1.1	ND<0.50	ND<0.50	0.6	3.9	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	84	ND<50	7.6	ND<0.50	ND<0.50	ND<0.50	27	1.4	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	650	ND<50	20	ND<0.50	0.63	2.16	390	17	47	ND<1.0	ND<1.0	---
	10/15/03	2,200	75	63	1.6	2.3	7.3	1,800	95	200	ND<1.0	ND<1.0	---
	11/19/03	1,200	ND<50	2.3	ND<0.50	ND<0.50	ND<0.50	1,200	61	47	ND<1.0	ND<1.0	---
	12/11/03	120	ND<50	3.0	ND<0.50	ND<0.50	ND<0.50	150	8.8	ND<20	ND<1.0	ND<1.0	---
	1/14/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	36	2.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	16	1.1	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.2	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.8	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	210	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	14	ND<10	ND<1.0	ND<1.0	---
	7/27/04	160	ND<50	6.0	ND<0.50	ND<0.50	1.13	97	6.1	ND<10	ND<1.0	ND<1.0	---
	9/21/04	930	ND<50	94	ND<0.50	ND<0.50	0.65	620	63	68	ND<1.0	ND<1.0	---
	10/19/04	680	ND<50	26	ND<0.50	ND<0.50	ND<0.50	680	77	ND<10	ND<1.0	ND<1.0	---
	2/16/05	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	40	2.5	ND<10	ND<1.0	ND<1.0	---
	5/12/05	ND <50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.4	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
MW-4													
Baseline Data	**10/9/02-11/4/02**	**330**	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	440	35	12	ND<1.0	ND<1.0	---
	10/9/02	ND<50	ND<50	ND<0.50	ND<50	ND<50	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	---
	11/12/02	ND<50	ND<50	ND<0.50	ND<50	ND<50	ND<50	66	3.7	ND<20	ND<1.0	ND<1.0	---
	11/27/02	ND<50	ND<50	1.3	ND<50	ND<50	ND<50	37	1.6	ND<20	ND<1.0	ND<1.0	ND<2.0
	12/10/02	ND<50	ND<50	0.76	ND<50	ND<50	ND<50	13	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	12/23/02	ND<50	ND<50	ND<0.50	ND<50	ND<50	ND<50	2.2	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	1/9/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/30/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	2/12/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	3/12/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	1.7	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	89	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	86	1.2	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	4.7	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	11	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.1	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	12	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	12/11/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/03	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.7	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	66	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	6.6	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	11	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	7.9	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.4	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	9/21/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	7.7	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	10/19/04	ND <0.50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	13	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	2.4	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/12/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
MW-5													
Baseline Data	**10/9/02-11/4/02**	**9,000**	**120**	**470**	ND<0.50	ND<0.50	ND<0.50	10,000	580	530	ND<20	ND<20	---
	11/12/02	2,400	ND<50	4,700	ND<0.50	ND<0.50	ND<0.50	4,700	0.97	750	4.7	ND<10	---
	11/27/02	2,400	ND<50	2.3	ND<0.50	ND<0.50	ND<0.50	4,800	260	610	16	ND<10	ND<10
	12/10/02	2,000	ND<50	ND<2.5	ND<0.50	ND<0.50	ND<0.50	3,400	190	760	10	ND<5.0	ND<5.0
	12/23/02	1,100	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1,600	89	140	5.6	ND<1.0	ND<5.0
	1/9/03	240	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	280	8.2	22	1.8	ND<1.0	---
	1/30/03	71	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	79	3.2	ND<20	ND<1.0	ND<1.0	ND<2.0
	2/12/03	110	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	87	ND<1.0	ND<20	4.8	ND<1.0	ND<2.0
	3/12/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	ND<50	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	1.3	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	12/11/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.1	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	51	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	26	2.9	ND<10	ND<1.0	ND<1.0	---
	9/21/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.2	ND<10	ND<10	ND<1.0	ND<1.0	---
	10/19/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	8.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	3/15/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.9	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/12/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
OW-3													
Baseline Data	**10/9/02**	**59,000**	---	**4,200**	**4,100**	**1,900**	**8,100**	29,000	2,800	2,200	ND<40	ND<40	---
	12/23/02	4,700	51	76	96	31	320	2,600	240	ND<1000	ND<50	ND<50	ND<2.0
	1/9/03	2,600	120	9.9	17	9.8	150	890	94	1,500	ND<1.0	ND<1.0	---
	1/30/03	4,800	460	19	28	41	281	470	52	730	ND<1.0	ND<1.0	ND<2.0
	2/12/03	3,000	490	21	32	29	330	440	43	1,100	ND<5.0	ND<5.0	ND<2.0
	3/12/03	5,900	710	21	42	56	530	210	28	480	ND<1.0	ND<1.0	ND<2.0
	4/17/03	4,200	250	15	30	53	500	110	18	340	ND<1.0	ND<1.0	ND<2.0
	5/14/03	1,300	110	3.1	2.1	12	57	52	6.8	140	ND<1.0	ND<1.0	ND<2.0
	6/10/03	2,600	150	14	2.5	23	92	1,500	110	1,900	ND<1.0	ND<1.0	ND<2.0
	7/16/03	4,900	180	8.1	3.2	27	106	490	43	620	ND<1.0	ND<1.0	ND<2.0
	8/15/03	3,300	---	62	51.0	42	164	1,900	220	1,200	ND<1.0	ND<1.0	ND<2.0
	9/16/03	4,600	---	130	140	50	233	1,200	190	440	ND<1.0	ND<1.0	---
	10/15/03	3,600	---	69	85	17	158	720	230	260	ND<1.0	ND<1.0	---
	11/19/03	2,700	---	27	39	10	90	530	75	170	ND<1.0	ND<1.0	---
	12/11/03	3,600	180	49	160	39	272	ND<150	30	57	ND<1.0	ND<1.0	---
	1/14/04	4,300	160	35	160	66	540	48	18	ND<70	ND<1.0	ND<1.0	---
	2/9/04	3,700	160	7	25	18	200	61	14	250	ND<1.0	ND<1.0	---
	3/10/04	2,100	93	3.7	18	12	127	28	6.7	50	ND<1.0	ND<1.0	---
	4/14/04	4,300	150	18	52	45	300	96	29	120	ND<1.0	ND<1.0	---
	5/13/04	3,200	190	11	39	36	269	62	17	67	ND<1.0	ND<1.0	---
	6/24/04	2,300	280	27	45	30	262	440	100	1,200	ND<1.0	ND<1.0	---
	7/27/04	3,400	220	53	39	30	203	720	140	1,400	ND<1.0	ND<1.0	---
	9/21/04	2,700	---	70	73	43	277	180	58	ND<10	ND<1.0	ND<1.0	---
	10/19/04	3,600	1,200	74	59	43	620	71	35	ND<10	ND<1.0	ND<1.0	---
	2/16/05	4,100	410	24	18	52	440	200	77	1,300	ND<1.0	ND<1.0	---
	3/15/05	5,300	570	20	21	83	920	320	85	800	ND<1.0	ND<1.0	
	5/12/05	3,300	130	5.3	10	16	212	ND<10	3.0	ND<25	ND<1.0	ND<1.0	

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
MW-6													
Baseline Data	**11/12/02**	**18,000**	**260**	**160**	**690**	**480**	**3,070**	3,200	420	ND<200	ND<20	ND<20	---
	11/27/02	2,400	ND<50	2.3	ND<0.50	ND<0.50	ND<0.50	4,800	260	610	16	ND<10	ND<10
	12/10/02	6,800	ND<50	18	37	28	650	2,500	320	420	ND<5.0	ND<5.0	ND<10
	12/23/02	2,300	84	2.7	5.5	2.9	121	580	82	78	ND<1.0	ND<1.0	ND<2.0
	1/9/03	2,900	190	1.6	3.9	1.4	81	790	97	470	ND<1.0	ND<1.0	---
	1/30/03	1,900	81	1.5	3.4	3.4	87	1,000	130	290	ND<1.0	ND<1.0	ND<2.0
	2/12/03	1,300	56	1.5	1.7	ND<0.50	49	700	65	220	ND<1.0	ND<1.0	ND<2.0
	3/12/03	210	ND<50	ND<0.50	ND<0.50	ND<0.50	7.2	84	11	47	ND<1.0	ND<1.0	ND<2.0
	4/17/03	510	58	ND<0.50	1.5	2.2	36	ND<10	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	510	ND<50	ND<0.50	1.4	ND<5.0	15.5	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	1,100	98	0.6	3.2	ND<5.0	25.3	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	430	ND<50	ND<0.50	1.1	ND<5.0	17.2	5.2	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	280	ND<50	ND<0.50	0.8	ND<5.0	12.0	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	150	ND<50	ND<0.50	ND<5.0	ND<5.0	2.5	4.1	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	370	ND<50	ND<0.50	0.57	ND<5.0	3.2	ND<10	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	150	ND<50	ND<0.50	ND<5.0	ND<5.0	1.4	ND<10	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	12/11/03	470	ND<50	ND<0.50	0.78	0.52	8.7	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/03	650	ND<50	ND<0.50	ND<0.50	0.52	8.0	ND<3.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	560	53	ND<0.50	ND<0.50	ND<5.0	5.4	ND<8.0	1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	240	ND<50	ND<0.50	ND<0.50	ND<0.51	1.9	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	370	ND<50	ND<0.50	ND<0.50	ND<0.51	1.4	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	83	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	130	ND<50	ND<0.50	ND<0.50	ND<0.50	1.51	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	9/21/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	10/19/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.6	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	260	ND<50	ND<0.50	ND<0.50	ND<0.50	0.54	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/12/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Contaminants of Concern						Fuel Oxygenates					
Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs	**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
OW-5												
11/12/02	---	---	---	---	---	---	---	---	---	---	---	---
1/9/03	390	77	3.5	1.0	1.7	3.5	150	20	82	ND<1.0	ND<1.0	---
1/30/03	3,000	230	4.7	ND <0.50	0.56	0.63	4,400	730	210	1.4	ND<1.0	ND<2.0
2/12/03	2,200	ND<50	ND<0.50	ND <0.50	0.76	ND<0.50	4,400	730	210	1.4	ND<1.0	ND<2.0
3/12/03	1,000	120	ND<0.50	ND <0.50	0.94	ND<0.50	1,900	99	22	ND<1.0	ND<1.0	ND<4.0
4/17/03	800	91	8.6	ND <0.50	15	2.0	1,100	98	35	ND<1.0	ND<1.0	ND<2.0
5/14/03	210	56	2.5	ND <0.50	1.7	1.3	440	27	ND<20	ND<1.0	ND<1.0	ND<2.0
6/10/03	450	ND<50	11	ND <0.50	1.5	ND<0.50	330	25	39	ND<1.0	ND<1.0	ND<2.0
7/16/03	170	ND<50	2.7	ND <0.50	2.4	ND<0.50	95	7.4	36	ND<1.0	ND<1.0	ND<2.0
8/15/03	210	---	ND<0.50	ND <0.50	ND<0.50	0.51	210	14	140	ND<1.0	ND<1.0	ND<2.0
9/16/03	---	---	---	---	---	---	---	---	---	---	---	---
10/15/03	---	---	---	---	---	---	---	---	---	---	---	---
11/19/03	---	---	---	---	---	---	---	---	---	---	---	---
12/11/03	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.5	6.7	ND<1.0	ND<20	ND<1.0	ND<1.0	---
1/14/04	52	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.5	64	1.5	ND<20	ND<1.0	ND<1.0	---
2/9/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.5	1.4	ND<1.0	ND<20	ND<1.0	ND<1.0	---
3/10/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
4/14/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	1.4	ND<1.0	ND<10	ND<1.0	ND<1.0	---
5/13/04	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
6/24/04	ND <50	ND <50	0.60	ND <0.50	ND <0.50	ND <0.50	5.5	ND<1.0	ND<10	ND<1.0	ND<1.0	---
7/27/04	ND <50	ND <50	0.65	ND <0.50	ND <0.50	ND <0.50	18	2.2	68	ND<1.0	ND<1.0	---
9/21/04	dry well											
10/19/04	62	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	4.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
2/16/05	ND <50	ND <50	0.51	ND <0.50	ND <0.50	ND <0.50	4.7	ND<1.0	ND<10	ND<1.0	ND<1.0	---
3/15/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	2.5	ND<1.0	ND<10	ND<1.0	ND<1.0	---
5/12/05	ND <50	ND <50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
MW-7													
Baseline Data	**11/12/02**	**5,600**	**160**	**83**	ND<0.50	**14**	**130**	5,800	550	200	ND<10	ND<10	---
	11/27/02	1,900	ND<50	0.90	ND<0.50	0.91	3.1	3,000	220	380	6.2	ND<1.0	ND<20
	12/10/02	1,600	ND<50	28	ND<2.5	7.0	ND<2.5	3,700	180	360	5.6	ND<5.0	ND<10
	12/23/02	2,900	ND<50	0.58	ND<5.0	0.9	0.6	6,000	350	750	6.1	ND<1.0	ND<10
	1/9/03	3,200	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6,700	330	1,000	6.7	ND<1.0	---
	1/30/03	3,000	ND<50	ND<2.5	ND<2.5	ND<2.5	ND<2.5	5,400	270	2,000	6.7	ND<5.0	2.9
	2/12/03	3,100	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3,300	84	200	5.3	ND<5.0	ND<2.0
	3/12/03	1,000	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2,000	ND<1.0	31	2.7	ND<1.0	ND<2.0
	4/17/03	590	ND<50	2.1	ND<0.50	ND<0.50	3.1	860	47	ND<20	2.0	ND<1.0	ND<2.0
	5/14/03	450	ND<50	1.4	ND<0.50	0.53	0.82	1,500	79	ND<20	2.6	ND<1.0	ND<2.0
	6/10/03	200	ND<50	0.54	ND<0.50	ND<0.50	ND<0.50	190	11	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	87	ND<50	1.6	ND<0.50	ND<0.50	ND<0.50	97	5	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	130	ND<50	ND<0.50	ND <0.50	ND<0.50	ND <0.50	170	10	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	140	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	89	4.7	ND<20	ND<1.0	ND<1.0	---
	10/15/03	230	ND<50	2.2	ND<0.50	0.5	ND<0.50	170	13	ND<20	ND<1.0	ND<1.0	---
	11/19/03	61	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	28	1.7	ND<20	ND<1.0	ND<1.0	---
	12/11/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	42	2.9	ND<20	ND<1.0	ND<1.0	---
	1/14/04	52	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	62	4.3	ND<20	ND<1.0	ND<1.0	---
	2/9/04	81	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	51	3.5	ND<10	ND<1.0	ND<1.0	---
	3/10/04	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	46	2.4	ND<10	ND<1.0	ND<1.0	---
	4/14/04	55	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	35	2.7	ND<10	ND<1.0	ND<1.0	---
	5/13/04	88	ND<50	1.4	ND<0.50	ND<0.50	ND<0.50	95	6.7	ND<10	ND<1.0	ND<1.0	---
	6/24/04	180	ND<50	0.63	ND<0.50	ND<0.50	ND<0.50	190	18	ND<10	ND<1.0	ND<1.0	---
	7/27/04	120	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140	11	ND<10	ND<1.0	ND<1.0	---
	9/21/04	270	ND<50	0.54	ND<0.50	ND<0.50	ND<0.50	280	38	ND<10	ND<1.0	ND<1.0	---
	10/19/04	65	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	90	7.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	250	ND<50	1.6	ND<0.50	ND<0.50	ND<0.50	240	38	210	ND<1.0	ND<1.0	---
	5/12/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	5.2	ND<1.0	ND<10	ND<1.0	ND<1.0	---

TABLE 1: PERFORMANCE MONITORING SAMPLING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
OW-4													
Baseline Data	**10/9/02**	**18,000**	---	**250**	**88**	**2,500**	**479**	220	52	ND<100	ND<10	ND<10	---
	12/23/02	560	ND<50	ND<0.50	ND<0.50	29	22	260	11	ND<100	3	ND<1.0	ND<2.0
	1/9/03	2,800	590	7.6	4.0	83	86	150	19	310	1.4	ND<1.0	---
	1/30/03	190	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	130	3.9	1,100	1.5	ND<1.0	ND<2.0
	2/12/03	2,000	170	ND<0.50	ND<0.50	13	16	100	1.4	ND<20	1.1	ND<1.0	ND<2.0
	3/12/03	1,800	300	ND<0.50	ND<0.50	30	27	7.9	ND<1.0	72	ND<1.0	ND<1.0	ND<2.0
	4/17/03	2,200	390	ND<0.50	0.60	91	90	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	290	ND<50	ND<0.50	ND <0.50	3.5	3.7	4.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	6,400	1,600	0.88	2.8	160	182	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	1,900	170	ND<0.50	1.30	110	97	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	560	---	ND<0.50	ND <0.50	47	16.98	ND<5.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	---	---	---	---	---	---	---	---				
	10/15/03	---	---	---	---	---	---	---	---				
	11/19/03	---	---	---	---	---	---	---	---				
	12/11/03	1,600	270	6.2	0.99	51	38	ND<50	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	1/14/04	2,000	110	ND<0.50	0.52	100	54	35	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	2,500	190	ND<0.50	ND<0.50	83	61	ND<4.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	790	80	ND<0.50	ND<0.50	43	20	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	4,700	370	ND<0.50	ND<0.50	160	124	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	1,500	ND<50	ND<0.50	ND<0.50	81	36	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	2,100	160	ND<0.50	1.2	94	47	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	2,100	150	ND<0.50	ND<0.50	100	47	2.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	9/21/04						dry well						
	10/19/04	500	180	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	4,100	580	3.5	ND<0.50	170	76.6	ND<1.0	1.0	ND<10	ND<1.0	ND<1.0	---
	3/15/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/12/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---

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HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Contaminants of Concern						Fuel Oxygenates					
	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TAME	TBA	ETBE	DIPE	TBF
PARGs		**12,500**	**500**	**500**	**300**	**300**	**300**	---	---	---	---	---	---
MW-8													
Baseline Data	**11/12/02**	**2,700**	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4,900	380	1,200	14	ND<10	---
	11/27/02	830	ND<50	4.20	ND<0.50	0.92	ND<0.50	1,200	73	710	6.0	ND<1.0	ND<2.0
	12/23/02	280	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1,300	14	ND<160	3.9	ND<1.0	ND<2.0
	1/9/03	120	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	170	8.5	56	1.7	ND<1.0	---
	1/30/03	140	ND<50	5.0	ND<2.5	ND<2.5	ND<2.5	190	5.0	57	2.3	ND<1.0	ND<2.0
	2/12/03	76	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140	2.8	ND<20	2.0	ND<1.0	ND<2.0
	3/12/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.8	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	4/17/03	75	ND<50	ND<0.50	ND<0.50	0.99	1.7	3.6	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	5/14/03	56	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.8	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	6/10/03	330	59	ND<0.50	ND<0.50	ND<0.50	9.3	1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	7/16/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	8/15/03	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	ND<2.0
	9/16/03	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.7	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	10/15/03	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.5	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	11/19/03	96	ND <50	ND<0.50	ND<0.50	ND<0.50	0.51	ND<1.0	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	12/11/03	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.3	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	1/14/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	49	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	2/9/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.7	ND<1.0	ND<20	ND<1.0	ND<1.0	---
	3/10/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	4/14/04	210	ND <50	ND<0.50	ND<0.50	0.66	4.5	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/13/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	6/24/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	7/27/04	62	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.7	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	9/21/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	10/19/04	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.3	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	2/16/05	ND <50	ND <50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.8	ND<1.0	ND<10	ND<1.0	ND<1.0	---
	5/12/05	2,200	220	9.3	ND<0.50	32	14	3.3	1.7	ND<10	ND<1.0	ND<1.0	---

Note: "---" indicates that an analyte was not sampled for.
ND indicates results below the laboratory detection limits.

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-1					
8/18/99	15.7	6.22	820	-26	3.50
12/12/99	16.2	6.99	800	-183	0.50
2/15/00	15.0	6.68	870	-134	0.60
5/30/00	15.6	6.78	730	-119	1.00
8/29/00	18.8	6.82	770	115	1.00
11/8/00	18.1	---	700	-105	3.20
2/7/01	13.6	---	710	-79	---
4/24/01	13.8	6.91	330	-90	0.60
8/8/01	---	---	---	---	---
11/13/01	---	---	790	-101	0.00
2/5/02	Not sampled due to the presence of free product.				---
5/7/02	Not sampled due to the presence of free product.				
8/14/02	Not sampled due to the presence of free product.				
12/23/02	---	---	---	-41	6.50
1/9/03	---	---	---	7	7.30
1/30/03	---	---	---	-43	12.63
2/12/03	---	---	---	49	13.13
3/12/03	13.6	7.24	315	25	8.00
4/17/03	14.9	7.08	389	172	11.38
5/14/03	15.3	7.23	303	75	11.18
6/10/03	17.2	7.40	29	76	7.34
7/16/03	18.5	7.80	71	101	10.30
8/15/03	19.8	7.40	263	92	9.59
9/16/03	18.7	7.26	321	60	10.09
10/15/03	17.7	6.97	318	163	10.27
11/19/03	16.2	6.70	542	-13	5.85
12/11/03	15.6	7.83	392	135	6.62
1/14/04	---	---	---	---	---
2/9/04	13.8	6.59	404	52	11.42
3/10/04	15.5	7.40	326	23	10.29
4/14/04	13.8	7.60	455	47	7.93
5/13/04	17.6	7.50	399	150	8.17
6/24/04	18.7	7.12	420	86	7.28
7/27/04	19.4	7.10	391	32	3.12
8/26/04	20.1	7.80	395	-8	6.74
9/21/04	19.5	7.40	365	-26	6.74
10/16/04	17.2	7.40	342	24	6.86
2/16/05	13.4	7.10	288	65	8.01
3/15/05	15.2	7.42	389	-8	8.71
5/12/05	16.0	7.10	505	157	7.53
MW-2					
8/18/99	14.5	6.32	280	160	4.40
12/12/99	16.5	6.45	220	72	5.00
2/15/00	14.0	6.50	120	57	5.10
5/30/00	15.8	6.99	150	210	7.80
8/29/00	18.4	6.76	230	210	2.30
11/8/00	18.6	---	440	20	1.50
2/7/01	13.4	---	100	270	---
4/24/01	13.9	7.86	---	265	6.30
8/8/01	---	---	---	---	---
11/13/01	---	7.93	530	-55	0.00
2/5/02	10.5	7.63	---	207	6.60
5/7/02	---	6.80	123	11	6.10

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-2 continued					
8/14/02	16.6	3.72	227	200	5.16
12/23/02	---	---	---	14	4.20
1/9/03	---	---	---	19	4.00
1/30/03	---	---	---	8	2.62
2/12/03	---	---	---	-12	5.12
3/12/03	13.7	7.07	103	56	3.40
4/17/03	13.6	6.38	186	61	0.20
5/14/03	14.4	7.10	170	47	0.57
6/10/03	15.8	6.40	24	-1	0.00
7/16/03	18.0	6.00	0	-10	0.29
8/15/03	20.6	5.70	114	115	1.06
9/16/03	18.8	6.86	243	52	0.62
10/15/03	18.4	6.71	275	119	0.72
11/19/03	16.9	5.90	278	-21	1.69
12/11/03	14.1	7.38	192	169	2.40
1/14/04	13.1	6.00	129	162	4.42
2/9/04	12.5	6.40	114	153	4.89
3/10/04	13.4	6.40	113	66	5.34
4/14/04	13.5	6.90	142	79	5.59
5/13/04	14.2	7.47	116	129	5.50
6/24/04	18.5	5.80	160	143	1.85
7/27/04	18.9	6.60	185	129	2.05
8/26/04	20.2	6.30	179	123	2.99
9/21/04	19.3	6.20	224	107	0.73
10/19/04	18.1	6.30	225	130	6.86
2/16/05	12.7	6.50	110	103	6.63
5/12/05	15.3	6.65	120	121	7.28
MW-3					
8/18/99	15.1	6.38	370	129	4.40
12/12/99	17.2	6.34	260	86	3.60
2/15/00	15.9	6.45	280	6	1.90
5/30/00	16.2	6.55	270	141	2.80
8/29/00	18.8	6.74	240	192	3.50
11/8/00	18.8	---	310	47	4.10
2/7/01	13.7	---	230	260	---
4/24/01	14.2	7.26	---	313	3.40
8/8/01	---	---	---	---	---
11/13/01	---	8.21	230	20	0.00
2/5/02	12.7	6.55	---	406	3.50
5/7/02	---	6.72	257	16	4.60
8/14/02	17.4	2.82	14	154	7.96
5/14/03	14.9	7.12	250	73	5.06
7/21/03	---	---	---	---	---
8/15/03	21.7	6.00	175	149	5.79
11/19/03	17.6	7.14	168	70	6.93
2/9/04	12.7	6.44	286	81	3.94
5/13/04	17.1	6.20	197	161	6.50
8/26/04	21.6	6.4	146	83	5.44
10/19/04	---	---	---	---	---
2/16/05	---	---	---	---	---
5/12/05	16.0	6.50	256	115	3.81
MW-4					
8/18/99	15.5	6.31	650	53	3.90
12/12/99	16.1	6.58	400	25	1.10
2/15/00	15.0	6.45	300	83	2.30

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-4 Cont'd					
5/30/00	16.1	6.32	320	129	1.70
8/29/00	18.1	6.98	530	-97	1.60
11/8/00	18.1	---	570	-21	1.40
2/7/01	15.0	---	510	-17	---
4/24/01	13.4	6.94	---	189	1.10
8/8/01	---	---	---	---	---
11/13/01	---	7.47	554	-98	0.00
2/5/02	12.7	5.72	---	31	3.90
5/7/02	---	6.92	395	16	1.90
8/14/02	16.1	3.50	326	79	2.50
12/23/02	---	---	---	10	6.80
1/9/03	---	---	---	-9	7.20
1/30/03	---	---	---	-56	11.28
2/12/03	---	---	---	63	11.53
3/12/03	13.8	7.09	137	99	8.60
4/17/03	15.2	6.81	211	216	10.17
5/14/03	15.5	7.19	196	123	10.53
6/10/03	16.8	6.40	17	103	3.61
7/16/03	18.5	7.10	80	97	9.12
8/15/03	20.7	6.90	392	113	8.41
9/16/03	19.1	7.53	467	95	8.83
10/15/03	17.5	6.95	387	171	9.93
11/19/03	17.1	7.45	293	126	0.54
12/11/03	15.0	7.58	277	167	1.75
1/14/04	14.1	6.20	208	172	11.30
2/9/04	13.2	6.70	272	71	11.78
3/10/04	14.9	6.40	214	43	10.05
4/14/04	14.1	6.80	277	83	9.21
5/13/04	17.2	8.00	326	160	8.10
6/24/04	18.7	6.83	322	138	4.80
7/27/04	18.6	7.10	331	135	3.08
8/26/04	20.7	7.10	294	117	5.91
9/21/04	19.6	6.90	309	122	6.05
10/19/04	17.6	6.80	279	168	6.89
2/16/05	15.1	6.3	223	125	1.82
5/12/05	15.3	6.5	336	190	6.53
MW-5					
12/13/01	---	---	---	---	---
2/5/02	11.6	7.27	---	472	3.50
5/7/02	---	6.95	566	-47	1.90
8/14/02	16.2	1.67	92	-18	3.05
12/23/02	---	---	---	-1	6.20
1/9/03	---	---	---	-31	8.10
1/30/03	---	---	---	-43	12.43
2/12/03	---	---	---	65	12.44
3/12/03	13.1	7.10	293	81	11.00
4/17/03	14.7	6.81	297	141	11.61
5/14/03	14.9	7.16	269	64	11.70
6/10/03	16.0	7.70	66	57	11.07
7/16/03	17.4	7.80	19	111	11.03
7/21/03	17.4	7.40	104	120	11.46
8/15/03 #	19.0	7.10	68	67	10.44

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-5 Cont'd					
9/16/03	17.7	7.04	242	58	10.53
10/15/03	17.1	6.77	210	153	10.99
11/19/03	16.4	7.41	181	124	10.01
12/11/03	15.5	7.70	240	135	10.48
1/14/04	---	---	---	---	---
2/9/04	14.2	7.10	210	143	10.71
3/10/04	15.4	6.90	220	36	11.98
4/14/04	13.2	7.60	280	53	12.08
5/13/04	17.1	7.92	260	99	8.88
6/24/04	17.6	7.40	332	90	8.19
7/27/04	18.3	7.50	277	76	6.73
8/26/04	20.9	7.30	231	91	7.61
9/21/04	18.7	7.40	240	91	8.21
10/19/04	16.5	7.10	231	124	10.88
2/16/05	14.9	7.00	213	76	11.41
3/15/05	15.0	7.31	301	33	10.59
5/12/05	15.6	7.10	328	161	9.23
MW-6					
12/23/02					
1/9/03	---	---	---	-38	3.00
1/30/03	---	---	---	32	2.90
2/12/03	---	---	---	-1	3.87
3/12/03	---	---	---	-56	6.58
4/17/03	13.4	7.13	344	22	6.50
5/14/03	15.0	6.43	365	39	4.40
6/10/03	17.6	6.70	219	190	3.50
7/16/03	---	---	---	---	---
8/15/03	20.4	6.30	36	144	1.32
9/16/03	21.8	7.10	213	19	1.71
10/15/03	18.6	7.52	253	-18	1.82
11/19/03	17.2	6.80	225	-17	1.55
12/11/03	17.7	7.52	189	97	0.92
1/14/04	16.3	7.70	217	150	1.25
2/9/04	---	---	---	---	---
3/10/04	16.0	6.20	192	80	1.64
4/14/04	15.7	6.00	167	27	0.92
5/13/04	15.0	6.60	207	35	1.30
6/24/04	18.4	6.00	196	13	1.54
7/27/04	19.1	6.20	211	---	1.82
8/26/04	19.7	6.70	196	5	2.15
9/21/04	---	---	---	---	---
10/19/04	17.9	6.80	180	55	1.60
2/16/05	15.7	6.30	156	84	0.90
5/12/05	17.3	6.47	180	91	0.94
MW-7					
12/23/02					
1/9/03	---	---	---	-48	10.30
1/30/03	---	---	---	-36	4.80
2/12/03	---	---	---	-24	6.64
3/12/03	---	---	---	8	7.81
4/17/03	13.6	7.26	374	58	6.80
5/14/03	15.2	6.89	425	99	9.40
6/10/03	15.6	7.40	378	170	9.70
7/16/03	16.3	7.30	9	151	9.42
8/15/03	19.1	7.40	9	127	8.82
9/16/03	19.5	7.40	262	112	8.47
10/15/03	18.4	7.66	300	9	8.35

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
MW-7 Cont'd					
11/19/03	16.4	6.96	291	35	8.16
12/11/03	---	---	---	---	---
1/14/04	15.1	7.77	310	139	8.24
2/9/04	---	---	---	---	---
3/10/04	14.1	7.30	255	151	9.12
4/14/04	14.8	7.20	258	49	9.75
5/13/04	13.9	7.40	321	38	9.82
6/24/04	16.1	7.72	312	69	6.80
7/27/04	17.4	6.93	299	---	0.58
8/26/04	17.5	7.40	282	22	2.43
9/21/04	19.9	7.19	328	147	4.13
10/16/04	15.4	7.00	260	-6	3.77
2/16/05	14.5	6.92	437	128	5.46
5/12/05	15.7	7.20	288	86	7.77
MW-8					
12/23/02					
1/9/03	---	---	---	-31	8.30
1/30/03	---	---	---	-30	8.80
2/12/03	---	---	---	-52	12.17
3/12/03	---	---	---	---	---
4/17/03	14.0	7.19	309	66	7.10
5/14/03	15.3	7.49	483	121	10.80
6/10/03	16.3	8.00	444	162	10.60
7/16/03	18.6	7.30	106	90	4.25
8/15/03	19.8	7.90	128	38	8.87
9/16/03	21.2	7.60	359	73	8.69
10/15/03	20.5	7.81	439	47	8.83
11/19/03	18.1	7.07	366	85	9.59
12/11/03	16.5	7.10	433	41	1.54
1/14/04	16.3	7.78	499	70	1.10
2/9/04	---	---	---	---	---
3/10/04	14.9	7.20	394	131	9.61
4/14/04	15.3	7.40	483	33	10.12
5/13/04	14.6	7.70	464	27	5.75
6/24/04	16.8	7.10	403	148	5.67
7/27/04	19.3	7.23	371	-11	1.25
8/26/04	18.6	7.60	298	1	1.39
9/21/04	---	---	---	---	---
10/16/04	18.0	7.10	286	27	2.42
2/16/05	14.5	7.26	426	20	1.98
5/12/05	17.0	6.70	323	-5	0.68
OW-1					
2/5/02					
5/7/02	12.2	6.12	---	273	2.60
8/14/02	---	6.79	569	82	2.80
5/14/03	15.5	3.23	12	140	4.04
8/15/03	15.3	6.20	309	260	8.60
11/19/03	Not enough water for sample				
2/9/04	---	---	---	---	---
5/13/04	13.3	6.16	285	84	10.56
8/26/04	17.1	5.90	253	224	7.86
10/19/04	---	---	---	---	---
2/16/05	14.6	6.49	394	167	8.70
5/12/05	16.2	6.45	246	54	6.54

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
OW-2					
2/5/02					
5/7/02	11.6	6.08	---	71	2.50
8/14/02	---	6.79	550	80	2.80
5/14/03	Not enough water for sample			---	---
8/15/03	15.7	6.40	379	232	3.70
11/19/03	Not enough water for sample				
2/9/04					
5/13/04	14.7	6.1	256	185	8.20
8/26/04	18.6	7.8	307	215	6.23
10/19/04	---	---	---	---	---
2/16/05	14.5	6.4	358	173	5.48
5/12/05	16.7	6.5	240	119	5.76
OW-3					
2/5/02					
5/7/02	12.7	6.21	---	-44	2.20
8/14/02	---	6.88	826	-54	2.50
12/23/02	Not enough water for sample			---	---
1/9/03	---	---	---	-50	4.10
1/30/03	---	---	---	-9	2.80
2/12/03	---	---	---	-18	4.15
3/12/03	---	---	---	---	6.39
4/17/03	14.4	7.04	369	9	3.90
5/14/03	15.6	6.31	432	-10	4.30
6/10/03	16.2	6.50	322	-12	3.00
7/16/03	17.6	7.19	549	-3	3.60
8/15/03	21.5	6.60	154	-19	4.46
11/19/03	Not enough water for sample				
12/11/03	---	---	---	---	---
1/14/04	16.8	7.63	362	13	0.49
2/9/04	---	---	---	---	---
3/10/04	15.2	6.40	248	41	0.45
4/14/04	# 15.7	6.10	250	-21	0.94
5/13/04	15.6	6.80	376	-45	0.98
6/24/04	19.1	6.20	331	---	0.38
7/27/04	19.5	6.40	420	---	4.18
8/26/04	20.0	7.00	417	---	1.02
9/21/04	---	---	---	---	---
10/16/04	---	---	---	---	---
2/16/05	15.6	6.74	396	-54	0.41
3/15/05	16.6	6.57	480	-67	0.49
5/12/05	17.5	6.67	228	-36	1.21
OW-4					
2/5/02					
5/7/02	11.6	6.67	---	-115	2.30
8/14/02	---	6.99	675	-69	2.00
12/23/02	17.5	3.29	63	-30	1.44
1/9/03	---	---	---	-19	7.00
1/30/03	---	---	---	-13	5.50
2/12/03	---	---	---	-59	10.66
3/12/03	---	---	---	19	11.72
4/17/03	13.8	7.27	361	55	6.10
5/14/03	15.5	7.11	597	125	7.80
6/10/03	17.1	7.80	227	117	7.40

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	Temperature (Celsius)	pH	Conductivity (µmohs)	ORP (mV)	Dissolved Oxygen (mg/l)
OW-4 Continued					
7/16/03	18.0	7.44	500	62	3.30
8/15/03	21.2	7.40	166	-5	7.45
11/19/03	Not enough water for sample				
12/11/03	---	---	---	---	---
1/14/04	---	---	---	---	---
2/9/04	12.7	6.90	432	177	8.74
3/10/04	13.8	6.90	370	137	6.19
4/14/04	14.2	7.20	380	31	9.03
5/13/04	14.1	7.20	448	8	0.95
6/24/04	17.6	6.70	405	68	2.17
7/27/04	19.8	7.13	369	-12	6.67
8/26/04	---	---	---	---	---
9/21/04	---	---	---	---	---
10/16/04	---	---	---	---	---
2/16/05	13.6	6.92	436	-17	0.47
3/15/05	15.1	7.39	354	-72	1.19
5/12/05	16.2	7.22	302	38	2.16
OW-5					
2/5/02					
5/7/02	11.1	7.03	---	16	2.60
8/14/02	---	6.94	744	-82	2.30
1/9/03	Sample not collected due to free product				---
1/30/03	---	---	---	-29	3.90
2/12/03	---	---	---	-28	10.42
3/12/03	---	---	---	-3	10.61
4/17/03	13.9	7.29	267	35	4.70
5/14/03	14.3	6.55	434	134	8.60
6/10/03	16.0	6.80	416	135	6.20
7/16/03	16.4	7.39	414	131	4.00
8/15/03	18.3	6.60	13	151	5.91
11/19/03	Not enough water for sample				
12/11/03	---	---	---	---	---
2/9/04	14.2	7.70	245	136	4.39
3/10/04	13.5	6.80	386	152	5.73
4/14/04	13.8	6.90	410	43	4.92
5/13/04	13.9	7.10	461	43	3.82
6/24/04	16.3	7.77	422	192	2.73
7/27/04	17.1	6.40	349	146	1.28
8/26/04	---	---	---	---	---
10/19/04	---	---	---	---	---
2/16/05	13.0	6.76	428	123	0.31
3/15/05	14.8	6.92	354	-52	0.36
5/12/05	15.5	7.21	298	40	0.38
PZ-1					
11/20/01					
2/5/02	---	6.70	377	124	3.30
5/7/02	12.2	6.40	---	267	4.30
8/14/02	---	---	---	---	---
5/14/03	---	---	---	---	---
7/16/03	---	---	---	---	---
7/21/03	19.5	6.00	70	160	5.13
11/19/03	19.1	5.90	55	153	5.77
2/9/04	15.7	6.00	357	78	6.09
5/13/04	13.6	6.0	368	177	6.12
6/24/04	17.1	7.74	314	149	5.15
8/26/04	17.9	6.08	263	71	4.27
10/19/04	---	---	---	---	---
2/16/05	22.0	6.2	231	104	4.33
5/12/05	15.9	6.0	283	212	3.79

TABLE 2: INTRINSICS ANALYSES MONITORING RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Field Analyses				
WELL/ Sample Date	**Temperature (Celsius)**	**pH**	**Conductivity (µmohs)**	**ORP (mV)**	**Dissolved Oxygen (mg/l)**
DW-Totem					
8/18/99					
12/12/99	14.0	6.74	180	175	5.00
2/15/00	13.1	6.31	200	91	15.10
5/30/00	12.1	6.47	160	123	1.60
8/29/00	13.7	6.65	190	-42	2.30
11/8/00	14.6	7.67	170	2	2.00
2/7/01	15.9	---	150	188	3.00
4/24/01	12.7	---	140	129	---
8/8/01	12.2	8.32	---	42	1.90
11/13/01	---	---	---	---	---
2/5/02	---	---	---	---	---
5/7/02	9.4	7.74	---	-547	4.50
8/14/02	---	6.76	217	-89	2.30
5/14/03	Sample not collected		---	---	---
11/19/03	12.0	7.20	160	14	0.03
2/9/04	14.0	6.60	164	-37	0.15
5/13/04	9.7	7.0	66	122	1.26
8/26/04	12.2	6.5	187	-36	0.70
10/19/04	---	---	---	---	---
2/16/05	---	---	---	---	---
5/12/05	13.3	6.64	169	-29	0.26

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Groundwater Measurements: Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	Analytical Results: TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
			mcl/(al)	---	1.0		1.0	150	700	1,700	13	
			tot	5	---	100	---	42	29	17	5	---
MW-1												
3/20/95	28.28	26.13	2.15	**8,100**	ND <50	ND <500	**27**	**85**	**58**	**299**	---	---
4/13/95		25.72	2.56	---	---	---	---	---	---	---	---	---
5/15/95		24.62	3.66	---	---	---	---	---	---	---	---	---
6/13/95		23.38	4.90	**77,000**	**170**	ND <500	**4,600**	**4,600**	**1,400**	**6,700**	---	---
7/17/95		22.38	5.90	---	---	---	---	---	---	---	---	---
9/1/95		21.38	6.90	---	---	---	---	---	---	---	---	---
9/25/95		20.85	7.43	**80,000**	**740**	---	**9,700**	**8,800**	**2,000**	**9,600**	**10,000**	---
10/30/95		19.75	8.53	---	---	---	---	---	---	---	---	---
11/20/95		19.25	9.03	---	---	---	---	---	---	---	---	---
12/21/95		18.18	10.10	**46,000**	**130**	---	**4,300**	**3,400**	**1,100**	**3,850**	**4,400**	---
1/18/96		25.32	2.96	---	---	---	---	---	---	---	---	---
2/20/96		25.90	2.38	---	---	---	---	---	---	---	---	---
3/26/96		24.98	3.30	**8,300**	ND <50	---	**1,500**	**240**	**330**	**680**	**7,200**	---
4/15/96		24.84	3.44	---	---	---	---	---	---	---	---	---
6/7/96		23.94	4.34	---	---	---	---	---	---	---	---	---
6/28/96		22.84	5.44	**48,000**	**150**	---	**7,500**	**6,200**	**1,500**	**6,800**	**14,000**	---
7/17/96		22.12	6.16	---	---	---	---	---	---	---	---	---
9/13/96		20.44	7.84	**58,000**	**2,600**	---	**11,000**	**7,900**	**1,600**	**7,400**	**11,000**	---
10/9/96		19.94	8.34	---	---	---	---	---	---	---	---	---
11/27/96		22.67	5.61	---	---	---	---	---	---	---	---	---
12/23/96		25.37	2.91	**29,000**	**230**	---	**9,200**	**1,200**	**1,800**	**2,300**	**19,000**	---
1/30/97		25.67	2.61	---	---	---	---	---	---	---	---	---
2/21/97		25.27	3.01	---	---	---	---	---	---	---	---	---
3/20/97		24.67	3.61	**15,000**	ND <50	---	**1,100**	**1,000**	**540**	**2,240**	**9,200**	---
4/16/97		23.57	4.71	---	---	---	---	---	---	---	---	---
6/25/97		22.35	5.93	**56,000**	**93**	---	**8,700**	**6,900**	**1,700**	**7,000**	**8,100**	---
7/11/97		20.78	7.50	---	---	---	---	---	---	---	---	---
9/11/97		20.12	8.16	**61,000**	**310**	---	**8,000**	**5,200**	**2,100**	**9,500**	**8,800**	---
12/15/97		23.89	4.39	**31,000**	**590**	---	**1,300**	**1,200**	**790**	**3,090**	**14,000**	---
3/5/98		25.77	2.51	**24,000**	**280**	---	**4,100**	**120**	**1,300**	**555**	**8,100**	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-1 Continued												
6/17/98		23.01	5.27	68,000	390	---	6,500	6,200	1,500	6,800	19,000	---
9/28/98		19.93	8.35	65,000	860	---	7,100	5,300	2,500	9,300	26,000	---
12/18/98		25.10	3.18	18,000	300	---	3,100	180	920	1,280	33,000	---
3/5/99		25.65	2.63	290,000	300	---	1,200	ND <100	380	450	30,000	TAME = 2,200 Other oxygenates ND Lead scavengers <200
6/6/99		23.40	4.88	54,000	320	---	2,800	3,100	1,300	4,760	32,000	---
8/18/99		20.80	7.48	88,000	440	---	6,100	6,700	3,200	11,900	36,000	TAME = 2,500 Other oxygenates ND [4]
12/12/99		23.61	4.67	6,700	330	---	160	54	390	660	6,800	TAME = 750 Other oxygenates ND [4]
2/15/00		25.49	2.79	12,000	290	---	970	100	570	615	11,000	TAME = 1,100 TBA = 1,100 Other oxygenates ND
5/30/00		23.77	4.51	29,000	280	---	850	860	1,500	4,130	6,200	TAME = 1300 Other oxygenates ND
8/29/00		20.70	7.58	42,000	740	---	3,600	2,200	2,100	6,900	7,400	TAME = 1,500 Other oxygenates ND
11/8/00		20.40	7.88	28,000	370	---	1,800	700	1,600	5,010	2,100	TAME = 790 Other oxygenates ND
2/7/01		22.13	6.15	44,000	1,300	---	3,300	950	2,300	5,260	3,900	TAME = 830 Other oxygenates ND
4/24/01		22.35	5.93	29,000	1,300	---	2,800	1,100	2,600	6,340	2,300	TAME = 470 Other oxygenates ND
8/8/01		19.91	8.37	47,000	1,200	---	3,700	1,000	2,700	5,790	3,900	TAME = 650 TBA = 1,200 Other oxygenates ND
11/13/01		17.36	10.92	81,000	2,300	---	2,000	9,900	2,900	15,100	2,000	TAME = 370 TBA = 890 Other oxygenates ND
2/5/02		24.16	4.16	Unable to sample due to presence of free product (0.05 feet thick)								
5/7/02		23.84	4.50	Unable to sample due to presence of free product (0.07 feet thick)								
8/14/02	31.29	---	---	Unable to sample due to presence of free product (0.32 feet thick)								
11/12/02		23.75	7.54	7,000	490	---	58	ND<25	ND<25	242	1,100	TAME = 98 TBA = 1000 Other oxygenates ND
11/26/02		22.11	9.18	870	970	370	ND<0.50	ND<0.50	2.0	2.0	740	TAME = 57 TBA = 460 ETBE= 1.4 Other oxygenates ND

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1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-1 Continued												
12/10/02		21.52	9.77	4,800	560	---	8.2	2.8	75	66.4	690	TAME = 32 TBA = 430 Other oxygenates ND
12/23/02		25.84	5.45	3,100	62	---	11	4.9	63	87.7	540	TAME = 43 ETBE= 1.2 Other oxygenates ND
1/9/03		27.62	3.67	780	160	---	1.7	1.1	8.6	17.8	540	TAME = 53 TBA= 42 Other oxygenates ND
1/30/03		27.92	3.37	200	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	310	TAME = 18 other oxygenates ND
3/12/03		26.90	4.39	100	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	160	TAME = 8.8 other oxygenates ND
4/17/03		28.11	3.18	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	42	All other oxygenates ND
5/14/03		26.71	4.58	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	All other oxygenates ND
6/10/03		26.27	5.02	1,200	380	---	15	4.4	16	184	72	TAME = 17 TBA= 26 Other oxygenates ND
7/16/03		24.17	7.12	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND <1.0	All other oxygenates ND
8/15/03		23.06	8.23	ND<50	ND<50	---	ND<0.50	ND<0.50	1.3	1.1	ND <1.0	All other oxygenates ND
9/16/03		21.86	9.43	ND<50	ND<50	---	ND<0.50	ND<0.50	0.5	1.1	ND <1.0	All other oxygenates ND
10/15/03		21.08	10.21	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND <1.0	All other oxygenates ND
11/19/03		22.88	8.41	2,200	140	---	110	11	18	95	75	TAME = 18 TBA= 45 Other oxygenates ND
12/11/03		25.50	5.79	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	All other oxygenates ND
1/14/04		27.49	3.80	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.5	All other oxygenates ND
2/9/04		27.67	3.62	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	0.53	4.9	All other oxygenates ND
3/10/04		27.57	3.72	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	0.53	1.6	All other oxygenates ND
4/14/04		26.93	4.36	190	50	---	ND<0.50	ND<0.50	0.96	10.3	4.0	All other oxygenates ND
5/13/04		26.35	4.94	ND<50	ND<50	---	ND<0.50	ND<0.50	0.64	1.4	4.3	All other oxygenates ND
6/24/04		24.55	6.74	1,300	93	---	120	12	11	148	59	TAME = 31 TBA= 31 Other oxygenates ND
7/27/04		23.93	7.36	4,900	380	---	440	69	91	530	72	TAME = 24 TBA= 46 Other oxygenates ND
8/26/04		23.11	8.18	950		---	49	9.2	11	130	42	TAME = 9.1 Other oxygenates ND
9/21/04		22.59	8.70	590	67	---	27	6.4	8.7	85	34	TAME = 9.4 Other oxygenates ND
10/19/04		22.59	8.70	570	78	---	40	8.2	13	78	27	TAME = 5.2 Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-1 Continued												
2/16/05		26.10	5.19	**4,100**	**270**	---	**83**	**160**	**85**	**870**	**12**	**TAME = 5.8** Other oxygenates ND
3/15/05		25.58	5.71	**1,100**	**68**	---	**42**	**15**	**10**	**198**	**28**	**TAME = 8.7** Other oxygenates ND
5/12/05		27.92	3.37	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	**1.44**	ND <1.0	All oxygenates ND
MW-2												
3/20/95	27.11	26.06	1.05	ND <50	ND <50	ND <500	ND <0.5	ND <0.5	ND <0.5	ND <0.5	---	---
4/13/95		24.54	2.57	---	---	---	---	---	---	---	---	---
5/15/95		24.04	3.07	---	---	---	---	---	---	---	---	---
6/13/95		22.61	4.50	**220**	ND <50	ND <500	**2.5**	**1.5**	**1.0**	**4.5**	---	---
7/17/95		21.66	5.45	---	---	---	---	---	---	---	---	---
9/1/95		20.66	6.45	---	---	---	---	---	---	---	---	---
9/25/95		20.13	6.98	**530**	ND <50	---	**110**	**2.1**	**1.2**	**7.1**	**19**	---
10/30/95		19.43	7.68	---	---	---	---	---	---	---	---	---
11/20/95		18.40	8.71	---	---	---	---	---	---	---	---	---
12/21/95		17.46	9.65	**140**	ND <50	---	**0.63**	ND <0.5	ND <0.5	**0.53**	ND <5.0	---
1/18/96		25.61	1.50	---	---	---	---	---	---	---	---	---
2/20/96		26.05	1.06	---	---	---	---	---	---	---	---	---
3/26/96		24.59	2.52	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
4/15/96		24.49	2.62	---	---	---	---	---	---	---	---	---
6/7/96		23.31	3.80	---	---	---	---	---	---	---	---	---
6/28/96		22.03	5.08	**150.0**	ND <50	---	**6.1**	**4.7**	**1.0**	**3.5**	ND <5.0	---
7/17/96		21.33	5.78	---	---	---	---	---	---	---	---	---
9/13/96		19.93	7.18	**860**	**58**	---	**260**	**13**	**3.8**	**17.3**	**73**	---
10/9/96		19.49	7.62	---	---	---	---	---	---	---	---	---
11/27/96		22.69	4.42	---	---	---	---	---	---	---	---	---
12/23/96		25.61	1.50	**66**	ND <50	---	**19**	ND <0.5	ND <0.5	**0.63**	**8.7**	---
1/30/97		25.68	1.43	---	---	---	---	---	---	---	---	---
2/21/97		25.05	2.06	---	---	---	---	---	---	---	---	---
3/20/97		24.45	2.66	ND <50	ND <50	---	**1.7**	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
4/16/97		22.87	4.24	---	---	---	---	---	---	---	---	---
6/25/97		21.47	5.64	**75**	ND <50	---	**10**	**2.1**	ND <0.5	**1.98**	**79**	---
7/11/97		16.38	10.73	---	---	---	---	---	---	---	---	---
9/11/97		19.65	7.46	**3,700**	**250**	---	**1,100**	**22**	**7.3**	**39**	**1,000**	---
12/15/97		23.95	3.16	**160**	**84**	---	**65**	**1.3**	**0.58**	**2.8**	**73**	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-2 Continued												
3/5/98		25.83	1.28	ND <50	ND <50	---	2.3	ND <0.5	ND <0.5	ND <0.5	5.6	---
6/17/98		22.29	4.82	ND <50	ND <50	---	0.67	ND <0.5	ND <0.5	ND <0.5	11	---
9/28/98		19.61	7.50	860	110	---	180	6.2	1.4	6.1	960	---
12/18/98		25.19	1.92	ND <50	ND <50	---	5.0	ND <0.5	ND <0.5	ND <0.5	61	---
3/5/99		25.73	1.38	360	ND <50	---	0.57	ND <0.5	ND <0.5	ND <0.5	10	Other oxygenates ND Lead scavengers <200
6/3/99		22.72	4.39	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	8.0	---
6/22/99		21.85	5.26	---	---	---	---	---	---	---	---	---
8/18/99		20.35	6.76	610	ND <50	---	70	6.7	1.1	13.6	930	---
12/12/99		24.31	2.80	89	ND <50	---	24	ND <0.5	ND <0.5	1.3	46	Other oxygenates ND
2/15/00		25.91	1.20	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	5.2	Other oxygenates ND
5/30/00		23.41	3.70	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	5.7	Other oxygenates ND
8/29/00		20.37	6.74	900	ND <50	---	58	0.63	ND <0.5	3.1	950	TAME = 40 TBA = 130 ETBE = 3.6 DIPE ND<1.0
11/8/00		20.07	7.04	4,000	57	---	970	ND <10	ND <10	ND <10	1700	TAME = 120 Other oxygenates ND
2/7/01		22.00	5.11	67	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	57	TAME = 2 Other oxygenates ND
4/24/01		22.05	5.06	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	18	Other oxygenates ND
8/8/01		19.69	7.42	2,100	78	---	920	3.5	ND <0.5	14	2,000	TAME = 71 TBA = 470 ETBE = 3.8 DIPE = 1.4
11/13/01		18.32	8.79	6,400	86	---	580	4.1	1.2	7.7	6,200	TAME = 280 TBA = 1900 ETBE = 5.4 Other oxygenates ND
12/13/01		23.94	3.17	---	---	---	---	---	---	---	---	---
2/5/02		25.21	1.90	ND <50	ND <50	---	1.5	ND <0.50	ND <0.50	ND <0.50	25	TAME=1.2
5/7/02		22.61	4.50	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	25	TAME=1.3

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-2 Continued												
8/14/02	30.08	22.99	7.09	**1,000**	ND <50	ND <170	**82**	**1.1**	ND <0.50	**1.6**	**450**	**TAME = 33** **TBA = 54** Other oxygenates ND
11/12/02		21.73	8.35	**5,700**	**75**	---	**1,500**	**1.7**	ND <0.50	**5.0**	**3,500**	**TAME = 240** **TBA = 770** **ETBE = 3.2** DIPE = ND<10
11/26/02		21.61	8.47	**5,000**	**92**	ND <170	**1,200**	**0.6**	ND <0.50	**2.4**	**3,300**	**TAME = 200** **TBA = 850** **ETBE = 3.1** Other oxygenates ND
12/10/02		21.53	8.55	**5,700**	**76**	---	**1,000**	**4.2**	ND <0.50	**5.3**	**3,100**	**TAME = 190** **TBA = 600** Other oxygenates ND
12/23/02		26.83	3.25	**430**	ND <50	---	**8.8**	ND <0.50	**0.61**	**0.82**	**90**	**TAME = 4.9** Other oxygenates ND
1/9/03		28.12	1.96	**340**	ND <50	---	**1.3**	ND <0.50	ND <0.50	ND <0.50	**42**	**TAME = 2.7** Other oxygenates ND
1/30/03		29.65	0.43	**470**	ND <50	---	**1.0**	ND <0.50	ND <0.50	ND <0.50	ND<1.0	All oxygenates ND
3/12/03		28.16	1.92	**200**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	All oxygenates ND
4/17/03		29.17	0.91	**200**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
5/14/03		27.56	2.52	**84**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
6/10/03		25.84	4.24	**77**	ND<50	---	**1.1**	**0.66**	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
7/16/03		24.37	5.71	**65**	ND<50	---	**1.1**	ND<0.50	ND<0.50	**0.58**	**3.9**	All oxygenates ND
8/15/03		23.54	6.54	**84**	ND<50	---	**7.6**	ND<0.50	ND<0.50	**0.52**	**27**	**TAME = 1.4** Other oxygenates ND
9/16/03		22.84	7.24	**650**	ND<50	---	**20**	ND<0.50	**0.63**	**2.16**	**390**	**TAME = 17** **TBA=47** Other oxygenates ND
10/15/03		22.17	7.91	**2,200**	**75**	---	**63**	**1.6**	**2.3**	**7.3**	**1,800**	**TAME = 95** **TBA=200** Other oxygenates ND
11/19/03		22.35	7.73	**1,200**	ND<50	---	**2.3**	ND<0.50	ND<0.50	ND<0.50	**1,200**	**TAME = 61** **TBA=47** Other oxygenates ND
12/11/03		26.36	3.72	**120**	ND<50	---	**3.0**	ND<0.50	ND<0.50	ND<0.50	**150**	**TAME = 8.8** Other oxygenates ND
1/14/04		28.69	1.39	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**36**	**TAME = 2.0** Other oxygenates ND
2/9/04		28.55	1.53	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**16**	**TAME = 1.1** Other oxygenates ND
3/10/04		27.78	2.30	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**9.2**	All oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-2 Continued												
4/14/04		26.64	3.44	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**10**	All oxygenates ND
5/13/04		25.96	4.12	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**6.8**	All oxygenates ND
6/24/04		24.29	5.79	**210**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**160**	**TAME = 14** Other oxygenates ND
7/27/04		23.78	6.30	**160**	ND<50	---	**6.0**	ND<0.50	ND<0.50	**1.13**	**97**	**TAME = 6.1** Other oxygenates ND
8/26/04		22.98	7.10	**500**	ND<50	---	**84**	ND<0.50	ND<0.50	ND<0.50	**350**	**TAME = 24** Other oxygenates ND
9/21/04		22.49	7.59	**930**	ND<50	---	**94**	ND<0.50	ND<0.50	**0.65**	**620**	**TAME = 63** **TBA=68** Other oxygenates ND
10/19/04		22.49	7.59	**680**	ND<50	---	**26**	ND<0.50	ND<0.50	ND<0.50	**680**	**TAME = 77** Other oxygenates ND
2/16/05		25.81	4.27	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**40**	**TAME = 2.5** Other oxygenates ND
5/12/05		27.79	2.29	ND <50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**4.4**	All oxygenates ND
MW-3												
3/20/95	28.99	26.89	2.10	ND <50	ND <50	ND <500	ND <0.5	ND <0.5	ND <0.5	ND <0.5	---	---
4/13/95		27.61	1.38	---	---	---	---	---	---	---	---	---
5/15/95		25.12	3.87	---	---	---	---	---	---	---	---	---
6/13/95		23.95	5.04	ND <50	ND <50	ND <500	**1.4**	**1.7**	ND <0.5	**0.76**	---	---
7/17/95		22.93	6.06	---	---	---	---	---	---	---	---	---
9/1/95		21.93	7.06	---	---	---	---	---	---	---	---	---
9/25/95		21.07	7.92	ND <50	---	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
10/30/95		19.86	9.13	---	---	---	---	---	---	---	---	---
11/20/95		19.26	9.73	---	---	---	---	---	---	---	---	---
12/21/95		18.69	10.30	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
1/18/96		26.27	2.72	---	---	---	---	---	---	---	---	---
2/20/96		26.67	2.32	---	---	---	---	---	---	---	---	---
3/26/96		25.49	3.50	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
4/15/96		25.39	3.60	---	---	---	---	---	---	---	---	---
6/7/96		24.47	4.52	---	---	---	---	---	---	---	---	---
6/28/96		23.39	5.60	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
7/17/96		22.53	6.46	---	---	---	---	---	---	---	---	---
9/13/96		20.63	8.36	ND <50	ND <50	---	**2.6**	**2.5**	**0.55**	**2.08**	ND <5.0	---
10/9/96		20.15	8.84	---	---	---	---	---	---	---	---	---

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HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-3 Continued												
11/27/96		23.40	5.59	---	---	---	---	---	---	---	---	---
12/23/96		26.12	2.87	ND <50	ND <50		ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
1/30/97		26.28	2.71	---	---	---	---	---	---	---	---	---
2/21/97		25.56	3.43	---	---	---	---	---	---	---	---	---
3/20/97		25.56	3.43	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
4/16/97		24.06	4.93	---	---	---	---	---	---	---	---	---
6/25/97		22.93	6.06	**68**	ND <50	---	**8.3**	**7.8**	**1.6**	**5.7**	ND <5.0	---
7/11/97		21.13	7.86	---	---	---	---	---	---	---	---	---
9/11/97		20.13	8.86	ND <50	ND <50	---	**2.8**	**1.7**	**0.57**	**2.02**	ND <5.0	---
12/15/97		24.42	4.57	ND <50	ND <50	---	**1.3**	**1.2**	**0.76**	**2.52**	ND <5.0	---
3/5/98		26.33	2.66	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
6/17/98		23.56	5.43	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
9/28/98		19.98	9.01	ND <50	ND <50	---	**3.5**	**2.7**	**0.98**	**3.45**	ND <5.0	---
12/18/98		25.61	3.38	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
3/5/99		26.16	2.83	160	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	Other oxygenates ND Lead scavengers <200
6/3/99		23.96	5.03	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <5.0	---
6/22/99		23.11	5.88	---	---	---	---	---	---	---	---	---
8/18/99		20.98	8.01	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	---
12/12/99		24.38	4.61	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
2/15/00		26.28	2.71	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
5/30/00		24.37	4.62	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
8/29/00		22.25	6.74	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
8/29/00	Method Blank			ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	**1.2**	**TAME =19** Other oxygenates ND
8/29/00	Field Duplicate			ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
11/8/00		20.84	8.15	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	**0.61**	ND <3.0	Other oxygenates ND
2/7/01		22.47	6.52	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
4/24/01		22.81	6.18	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	Other oxygenates ND
8/8/01		19.96	9.03	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	**0.61**	ND <3.0	**TBA =35** Other oxygenates ND
11/13/01		18.69	10.30	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND<0.50	ND<1.0	Other oxygenates ND
11/20/01		20.13	8.86	---	---	---	---	---	---	---	---	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. ITDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-3 Continued												
12/13/01		24.36	4.63	---	---	---	---	---	---	---	---	---
2/5/02		25.78	3.21	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
5/7/02		23.79	5.20	**56**	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
8/14/02	31.99	23.45	8.54	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/12/02		22.51	9.48	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
5/14/03		27.85	4.14	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
7/16/03		---	---	---	---	---	---	---	---	---	---	---
8/15/03		23.97	8.02	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/19/03		23.18	8.81	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
2/9/04		28.54	3.45	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
3/10/04		---	---	---	---	---	---	---	---	---	---	---
4/14/04		---	---	---	---	---	---	---	---	---	---	---
5/13/04		26.97	5.02	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
8/26/04		23.38	8.61	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
10/19/04		---	---	---	---	---	---	---	---	---	---	---
2/16/05		26.48	5.51	---	---	---	---	---	---	---	---	---
5/12/05		28.27	3.72	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
MW-4												
6/22/99	28.21	22.34	5.87	ND <50	**85**	---	**2.0**	**1.4**	ND <0.5	**11.1**	**6,000**	---
8/18/99		20.79	7.42	**850**	ND <50	---	ND <2.0	ND <2.0	ND <0.5	ND <0.5	**8,400**	---
12/12/99		23.60	4.61	**200**	ND <50	---	ND <0.5	ND <0.5	ND <0.5	**0.53**	**800**	**TAME = 72** **TBA = 82** Other oxygenates ND
2/15/00		25.77	2.44	**65**	ND <50	---	**0.57**	ND <0.5	ND <0.5	ND <0.5	**190**	**TAME =11** Other oxygenates ND
5/30/00		24.00	4.21	**240**	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	**370**	**TBA=45** **TAME =24** Other oxygenates ND
8/29/00		20.73	7.48	**1,700**	**130**	---	**64**	**53**	**25**	**145**	**470**	**TAME =49** Other oxygenates ND
11/8/00		20.31	7.90	**1,100**	ND <50	---	**3.4**	**5.2**	**33**	**65**	**910**	**TAME =98** Other oxygenates ND
2/7/01		22.13	6.08	**1,000**	**110**	---	**2.3**	**1.3**	**13**	**16.5**	**740**	**TBA=240** **TAME =61** Other oxygenates ND
4/24/01		22.52	5.69	**140**	ND <50	---	ND <0.5	ND <0.5	**0.61**	**4.2**	**220**	**TBA=34** **TAME =14** Other oxygenates ND

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WELL/ Sample Date	Groundwater Measurements: Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	Analytical Results: TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-4 Continued												
4/24/01		Field Duplicate		**130**	---	---	ND <0.5	ND <0.5	**0.56**	**4.0**	**210**	**TBA=28** **TAME =14** Other oxygenates ND
8/8/01		20.08	8.13	**930**	ND <50	---	ND <0.5	ND <0.5	**1.6**	**2.4**	**1,600**	**TBA=490** **TAME =100** Other oxygenates ND
11/13/01		18.81	9.40	**330**	ND <50	---	ND <0.5	ND <0.5	**1.6**	**1.94**	**420**	**TAME =26** Other oxygenates ND
11/20/01		19.84	8.37	---	---	---	---	---	---	---	---	---
12/13/01		23.83	4.38	---	---	---	---	---	---	---	---	---
2/5/02		24.53	3.68	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	Other oxygenates ND
5/7/02		23.41	4.80	**390**	ND <50	ND <170	**12**	ND <0.50	ND <0.50	**0.69**	**540**	**TBA=97** **TAME =42** Other oxygenates ND
8/14/02	31.21	23.55	7.66	**410**	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**470**	**TBA=33** **TAME =41** Other oxygenates ND
11/12/02		21.75	9.46	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**66**	**TAME =3.7** Other oxygenates ND
11/26/02		21.82	9.39	ND <50	ND <50	ND <170	**1.3**	ND <0.50	ND <0.50	ND <0.50	**41**	**TAME =1.6** Other oxygenates ND
12/10/02		21.90	9.31	ND <0.50	ND <50	---	**0.76**	ND <0.50	ND <0.50	ND <0.50	**13**	Other oxygenates ND
12/23/02		26.28	4.93	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**2.2**	All oxygenates ND
1/9/03		27.56	3.65	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
1/30/03		26.01	5.20	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
3/12/03		26.97	4.24	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.0**	All oxygenates ND
4/17/03		---	---	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.7**	All oxygenates ND
5/14/03		27.23	3.98	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**5.0**	All oxygenates ND
6/10/03		26.44	4.77	**89**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**86**	**TAME =1.2** Other oxygenates ND
7/16/03		24.91	6.30	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**4.7**	All oxygenates ND
8/15/03		23.71	7.50	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**11**	All oxygenates ND
9/16/03		22.92	8.29	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**4.1**	All oxygenates ND
10/15/03		21.94	9.27	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
11/19/03		23.08	8.13	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**12**	All oxygenates ND
12/11/03		25.81	5.40	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
1/14/04		28.18	3.03	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
2/9/04		28.16	3.05	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
3/10/04		27.91	3.30	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.7**	All oxygenates ND
4/14/04		27.22	3.99	**66**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**6.6**	All oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-4 Continued												
5/13/04		26.61	4.60	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**11**	All oxygenates ND
6/24/04		25.23	5.98	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**7.9**	All oxygenates ND
7/27/04		24.30	6.91	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**4.4**	All oxygenates ND
8/26/04		23.69	7.52	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**8.5**	All oxygenates ND
9/21/04		23.17	8.04	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**7.7**	All oxygenates ND
10/19/04		23.12	8.09	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**13**	All oxygenates ND
2/16/05		26.29	4.92	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**2.4**	All oxygenates ND
5/12/05		27.93	3.28	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW-5												
12/13/01	28.51	24.04	4.47	**1,100**	ND <50	---	**15**	ND <0.5	**1.0**	**0.63**	**1,200**	**TAME =110** Other oxygenates ND
2/5/02		25.43	3.08	**330**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**460**	**TAME =40** Othery oxygenates ND
5/7/02		23.53	4.98	**7,100**	**120**	ND <170	**360**	**7.0**	**170**	**12.3**	**5,600**	**TBA=280** **TAME =620** Other oxygenates ND
8/14/02	31.50	23.24	8.26	**25,000**	ND <50	ND <170	**200**	ND <0.50	**150**	ND <0.50	**12,000**	**TAME =2,300** Other oxygenates ND
11/12/02		21.69	9.81	**2,400**	ND <50	---	**0.97**	ND <0.50	ND <0.50	ND <0.50	**4,700**	**TAME = 390** **TBA = 750** **ETBE = 4.7** DIPE = ND<1.0
11/26/02		22.11	9.39	**2,400**	ND <50	ND <170	**2.3**	ND <0.50	ND <0.50	ND <0.50	**4,800**	**TAME = 260** **TBA = 610** **ETBE = 16** Other oxygenates ND
12/10/02		21.99	9.51	**2,000**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**3,400**	**TAME = 190** **TBA = 760** **ETBE = 10** DIPE = ND<1.0
12/23/02		26.21	5.29	**1,100**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1,600**	**TAME = 89** **TBA = 140** **ETBE = 5.6** Other oxygenates ND
1/9/03		27.91	3.59	**240**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**280**	**TAME = 8.2** **TBA = 22** **ETBE = 1.8** Other oxygenates ND

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	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-5 Continued												
1/30/03		29.06	2.44	**71**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**79**	**TAME = 3.2**
3/12/03		27.91	3.59	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
4/17/03		---	---	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
5/14/03		27.51	3.99	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
6/10/03		26.08	5.42	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
7/16/03		24.34	7.16	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
8/15/03		23.37	8.13	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.3**	All oxygenates ND
9/16/03		22.38	9.12	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
10/15/03		21.79	9.71	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
11/19/03		22.39	9.11	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
12/11/03		25.85	5.65	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
1/14/04		28.45	3.05	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
2/9/04		28.30	3.20	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
3/10/04		28.01	3.49	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
4/14/04		27.03	4.47	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
5/13/04		26.68	4.82	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
6/24/04		24.90	6.60	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.1**	All oxygenates ND
7/27/04		23.88	7.62	**51**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**26**	**TAME = 2.9**
8/26/04		23.11	8.39	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**3.2**	All oxygenates ND
9/21/04		22.55	8.95	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.2**	All oxygenates ND
10/19/04		22.55	8.95	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
2/16/05		26.01	5.49	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**8.0**	All oxygenates ND
3/15/05		25.52	5.98	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**4.9**	All oxygenates ND
5/12/05		27.99	3.51	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW-6												
11/12/02	31.72	21.86	9.86	**18,000**	**260**	---	**160**	**690**	**480**	**3070**	**3,200**	**TAME =400** Other oxygenates ND
11/26/02		22.31	9.41	**6,400**	**400**	ND <170	**30**	**97**	**83**	**660**	**1,800**	**TAME =260** **TBA=150** Other oxygenates ND
12/10/02		22.01	9.71	**6,800**	ND <50	---	**18**	**37**	**28.0**	**650**	**2,500**	**TAME =320** **TBA=420** Other oxygenates ND
12/23/02		23.31	8.41	**2,300**	**84**	---	**2.7**	**5.5**	**2.9**	**121**	**580**	**TAME =82** **TBA=78** Other oxygenates ND

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	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-6 Continued												
1/9/03		22.76	8.96	2,900	190	---	1.6	3.9	1.4	81	790	TAME =97 TBA=470 Other oxygenates ND
1/30/03		22.45	9.27	1,900	81	---	1.5	3.4	3.4	77	1,000	TAME =130 TBA=290 Other oxygenates ND
3/12/03		22.00	9.72	270	ND <50	---	ND <0.5	ND <0.5	ND <0.5	7.7	84	TAME =11 TBA=47 Other oxygenates ND
4/17/03		22.73	8.99	510	58	---	ND<0.50	1.5	2.2	36	ND<10	All oxygenates ND
5/14/03		27.41	4.31	510	ND<50	---	ND<0.50	1.4	ND<5.0	15.5	ND<5.0	All oxygenates ND
6/10/03		26.16	5.56	1,100	98	---	0.58	3.2	ND<5.0	25	ND<5.0	All oxygenates ND
7/16/03		24.75	6.97	430	ND<50	---	ND<0.50	1.1	ND<5.0	17.2	5.2	All oxygenates ND
8/15/03		23.80	7.92	280	ND<50	---	ND<0.50	0.78	ND<5.0	12	4.5	All oxygenates ND
9/16/03		22.79	8.93	150	ND<50	---	ND<0.50	ND<5.0	ND<5.0	2.5	4.1	All oxygenates ND
10/15/03		22.69	9.03	370	ND<50	---	ND<0.50	0.57	ND<5.0	3.2	ND<10	All oxygenates ND
11/19/03		22.71	9.01	150	ND<50	---	ND<0.50	ND<5.0	ND<5.0	1.4	ND<10	All oxygenates ND
12/11/03		25.01	6.71	470	ND<50	---	ND<0.50	0.78	0.52	8.7	ND<5.0	All oxygenates ND
1/14/04		28.10	3.62	650	ND<50	---	ND<0.50	ND<0.50	0.52	8.0	ND<3.0	All oxygenates ND
2/9/04		27.86	3.86	560	53	---	ND<0.50	ND<0.50	ND<0.50	5.4	ND<8.0	Tame=1.0 Other oxygenates ND
3/10/04		27.70	4.02	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
4/14/04		26.32	5.40	240	ND<50	---	ND<0.50	ND<0.50	ND<0.50	1.9	ND<1.0	All oxygenates ND
5/13/04		26.31	5.41	370	ND<50	---	ND<0.50	ND<0.50	ND<0.50	1.4	ND<1.0	All oxygenates ND
6/24/04		25.61	6.11	83	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	All oxygenates ND
7/27/04		23.17	8.55	130	ND<50	---	ND<0.50	ND<0.50	ND<0.50	1.51	ND<1.0	All oxygenates ND
8/26/04		21.70	10.02	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
9/21/04		22.47	9.25	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
10/19/04		22.47	9.25	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.6	All oxygenates ND
2/16/05		25.66	6.06	260	ND<50	---	ND<0.50	ND<0.50	ND<0.50	0.54	ND<1.0	All oxygenates ND
5/12/05		26.67	5.05	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND< 1.0	All oxygenates ND
MW-7												
11/12/02	31.86	20.90	10.96	5,600	160	---	83	ND <0.5	14	129.9	5,700	TAME =450 TBA=1,600 Other oxygenates ND
11/26/02		22.40	9.46	1,900	ND <50	ND <170	0.90	ND <0.5	0.91	3.05	3,000	TAME =220 TBA=380 ETBE=6.2 Other oxygenates ND

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	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-7 Continued												
12/10/02		21.86	10.00	**1,600**	ND <50	---	**28**	ND <0.5	**7.0**	ND <0.5	**3,700**	**TAME =180** **TBA=360** **ETBE=5.6** Other oxygenates ND
12/23/02		21.74	10.12	**2,900**	ND <50	---	**0.58**	ND <0.5	**0.87**	**0.57**	**6,000**	**TAME =350** **TBA=750** **ETBE=6.1** Other oxygenates ND
1/9/03		21.51	10.35	**3,200**	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	**6,700**	**TAME =330** **TBA=1,000** **ETBE=6.7** Other oxygenates ND
1/30/03		21.78	10.08	**3,000**	ND <50	---	ND <0.25	ND <0.25	ND <0.25	ND <0.25	**5,400**	**TAME =270** **TBA=2,000** **ETBE=6.7** **TBF=2.9** Other oxygenates ND
3/12/03		21.84	10.02	**1,000**	ND <50	---	ND <0.25	ND <0.25	ND <0.25	ND <0.25	**2,000**	**TAME =97** **TBA=31** **ETBE=2.7** Other oxygenates ND
4/17/03		27.67	4.19	**590**	ND<50	---	**2.1**	ND<0.50	ND<0.50	**3.1**	**860**	**TAME =47** **ETBE=2.0** Other oxygenates ND
5/14/03		27.65	4.21	**450**	ND<50	---	**1.4**	ND<0.50	**0.53**	**0.82**	**1,500**	**TAME =79** **ETBE=2.6** Other oxygenates ND
6/10/03		26.66	5.20	**200**	ND<50	---	**0.54**	ND<0.50	**0.53**	ND<0.50	**190**	**TAME = 11** Other oxygenates ND
7/16/03		24.86	7.00	**87**	ND<50	---	**1.6**	ND<0.50	ND<0.50	ND<0.50	**97**	**TAME = 4.6** Other oxygenates ND
8/15/03		23.98	7.88	**130**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**170**	**TAME = 10** Other oxygenates ND
9/16/03		23.13	8.73	**140**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**89**	**TAME = 4.7** Other oxygenates ND
10/15/03		22.47	9.39	**230**	ND<50	---	**2.2**	ND<0.50	**0.5**	ND<0.50	**170**	**TAME = 13** Other oxygenates ND
11/19/03		22.11	9.75	**61**	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**28**	**TAME = 1.7** Other oxygenates ND

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	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-7 Continued												
12/11/03		25.81	6.05	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	42	TAME = 2.9 Other oxygenates ND
1/14/04		28.61	3.25	52	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	62	TAME = 4.3 Other oxygenates ND
2/9/04		28.45	3.41	81	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	51	TAME = 3.5 Other oxygenates ND
3/10/04		28.08	3.78	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	46	TAME = 2.4 Other oxygenates ND
4/14/04		27.25	4.61	55	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	35	TAME = 2.7 Other oxygenates ND
5/13/04		26.96	4.90	88	ND<50	---	1.4	ND<0.50	ND<0.50	ND<0.50	95	TAME = 6.7 Other oxygenates ND
6/24/04		25.29	6.57	180	ND<50	---	0.63	ND<0.50	ND<0.50	ND<0.50	190	TAME = 18 Other oxygenates ND
7/27/04		24.28	7.58	120	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140	TAME = 11 Other oxygenates ND
8/26/04		23.49	8.37	170	ND<50	---	0.70	ND<0.50	ND<0.50	ND<0.50	170	TAME = 13 Other oxygenates ND
9/21/04		22.91	8.95	270	ND<50	---	0.54	ND<0.50	ND<0.50	ND<0.50	280	TAME = 38 Other oxygenates ND
10/19/04		22.78	9.08	65	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	90	TAME = 7.0 Other oxygenates ND
2/16/05		26.11	5.75	250	ND<50	---	1.6	ND<0.50	ND<0.50	ND<0.50	240	TAME = 38 TBA = 210 Other oxygenates ND
5/12/05		27.87	3.99	ND <0.50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	5.2	All oxygenates ND
MW-8												
11/12/02	31.52	20.21	11.31	2,100	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	4,300	TAME =310 TBA=1,200 ETBE=14 Other oxygenates ND
11/26/02		19.62	11.90	830	ND <50	ND <170	4.2	ND <0.5	0.92	ND <0.5	1,200	TAME =73 TBA=710 ETBE=6.0 Other oxygenates ND
12/10/02		17.87	13.65	---	---	---	---	---	---	---	---	---
12/23/02		22.37	9.15	280	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	1,300	TAME =14 ETBE=3.9 Other oxygenates ND
1/9/03		26.15	5.37	120	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	170	TAME =8.5 TBA=56 ETBE=1.7 Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
MW-8 Continued												
1/30/03		27.73	3.79	**140**	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	**190**	**TAME =5.0** **TBA=57** **ETBE=2.3** Other oxygenates ND
3/12/03		24.09	7.43	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	**4.8**	All other oxygenates ND
4/17/03		27.50	4.02	**75**	ND<50		ND<0.50	ND<0.50	**0.99**	**1.7**	**3.6**	All other oxygenates ND
5/14/03		26.75	4.77	**56**	ND<50		ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.8**	All other oxygenates ND
6/10/03		26.32	5.20	**330**	**59**		ND<0.50	ND<0.50	ND<0.50	**9**	**1.0**	All other oxygenates ND
7/16/03		23.75	7.77	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
8/15/03		22.47	9.05	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
9/16/03		21.81	9.71	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**1.7**	All other oxygenates ND
10/15/03		20.86	10.66	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**1.5**	All other oxygenates ND
11/19/03		22.85	8.67	**96**	ND <50	---	ND<0.50	ND<0.50	ND<0.50	**0.51**	ND<1.0	All other oxygenates ND
12/11/03		25.50	6.02	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**9.3**	All other oxygenates ND
1/14/04		27.34	4.18	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**49**	All other oxygenates ND
2/9/04		27.56	3.96	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.7**	All other oxygenates ND
3/10/04		27.10	4.42	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
4/14/04		27.23	4.29	**210**	ND <50	---	ND<0.50	ND<0.50	**0.66**	**4.5**	ND<1.0	All other oxygenates ND
5/13/04		26.49	5.03	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
6/24/04		25.88	5.64	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All other oxygenates ND
7/27/04		23.90	7.62	**62**	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.7**	All other oxygenates ND
8/26/04		23.24	8.28	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.2**	All other oxygenates ND
9/21/04		22.64	8.88	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**1.3**	All other oxygenates ND
10/19/04		22.65	8.87	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**1.6**	All other oxygenates ND
2/16/05		25.91	5.61	ND <50	ND <50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**1.8**	All other oxygenates ND
5/12/05		28.17	3.35	**2,200**	**220**	---	**9.3**	ND<0.50	**32**	**14**	**3.3**	**TAME=1.7** All other oxygenates ND
PZ-1												
11/20/2001	29.76	20.12	9.64	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <1.0	TAME ND<20 Other oxygenates ND
12/13/2001		24.75	5.01	---	---	---	---	---	---	---	---	---
2/5/2002		26.43	3.33	---	---	---	---	---	---	---	---	---
5/7/2002		24.51	5.25	---	---	---	---	---	---	---	---	---
8/14/2002		20.96	8.80	ND <50	---	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <1.0	Other oxygenates ND
11/12/2002		19.53	10.23	---	---	---	---	---	---	---	---	---
5/14/2003		25.06	4.70	---	---	---	---	---	---	---	---	---
7/16/03		22.74	7.02	---	---	---	---	---	---	---	---	---
8/15/03		21.57	8.19	---	---	---	---	---	---	---	---	---

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
PZ-1 Continued												
11/19/03		20.53	9.23	---	---	---	---	---	---	---	---	---
2/9/04		26.69	3.07	---	---	---	---	---	---	---	---	---
3/10/04		---	---	---	---	---	---	---	---	---	---	---
4/14/04		---	---	---	---	---	---	---	---	---	---	---
5/13/04		24.73	5.03	---	---	---	---	---	---	---	---	---
6/24/04		22.82	6.94	---	---	---	---	---	---	---	---	---
8/26/04		20.86	8.90	---	---	---	---	---	---	---	---	---
10/19/04		---	---	---	---	---	---	---	---	---	---	---
2/16/05		23.91	5.85	---	---	---	---	---	---	---	---	---
5/12/05		26.38	3.38	---	---	---	---	---	---	---	---	---
OW-1												
11/20/01	29.64	---	---	---	---	---	---	---	---	---	---	---
2/5/02		24.09	5.55	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
5/7/02		25.53	4.11	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
8/14/02	32.63	24.48	8.15	ND <50	---	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/12/02		22.98	9.65	---	---	---	---	---	---	---	---	---
5/14/03		28.93	3.70	**83**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
7/16/03		---	---	---	---	---	---	---	---	---	---	---
8/15/03		24.40	8.23	ND <50	---	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/9/03		23.43	9.20	ND <50	---	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
2/9/04		29.21	3.42	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
3/10/04		---	---	---	---	---	---	---	---	---	---	---
4/14/04		---	---	---	---	---	---	---	---	---	---	---
5/13/04		27.45	5.18	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**33**	Other oxygenates ND
8/26/04		23.72	8.91	**50**	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**43**	Other oxygenates ND
10/19/04		---	---	---	---	---	---	---	---	---	---	---
2/16/05		26.98	5.65	---	---	---	---	---	---	---	---	---
5/12/05		28.53	4.10	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
OW-2												
11/20/01	29.95	---	---	---	---	---	---	---	---	---	---	---
2/5/02		24.97	4.98	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**35**	**TAME=3.2** Other oxygenates ND
5/7/02		25.03	4.92	**55**	ND <50	**190**	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**25**	**TAME=2.5** Other oxygenates ND
8/14/02	32.43	23.67	8.76	---	---	---	---	---	---	---	---	---
11/12/02		22.80	9.63	---	---	---	---	---	---	---	---	---
5/14/03		28.41	4.02	**120**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.2**	Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
OW-2 Continued												
7/16/03		---	---	---	---	---	---	---	---	---	---	---
8/15/03		24.28	8.15	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
11/19/03		23.34	9.09	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
2/9/04		29.00	3.43	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
3/10/04		---	---	---	---	---	---	---	---	---	---	---
4/14/04		---	---	---	---	---	---	---	---	---	---	---
5/13/04		27.29	5.14	**58**	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**66**	Other oxygenates ND
8/26/04		23.54	8.89	**93**	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**76**	Other oxygenates ND
10/19/04		---	---	---	---	---	---	---	---	---	---	---
2/16/05		26.61	5.82	---	---	---	---	---	---	---	---	---
5/12/05		28.25	4.18	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
OW-3												
11/20/01	28.92	19.94	8.98	---	---	---	---	---	---	---	---	---
2/5/02		24.53	4.39	**16,000**	**410**	---	**770**	**830**	**270**	**890**	**5,800**	**TAME=560** Other oxygenates ND
5/7/02		24.24	4.68	**42,000**	**440**	ND <170	**1,100**	**3,200**	**1,000**	**4,300**	**17,000**	**TBA=1,800** **TAME =3,100** Other oxygenates ND
8/14/02	31.91	23.09	8.82	---	---	---	---	---	---	---	---	---
11/12/02		21.96	9.95	---	---	---	---	---	---	---	---	---
11/26/02		---	---	---	---	---	---	---	---	---	---	---
12/10/02		---	---	---	---	---	---	---	---	---	---	---
12/23/02		26.71	5.20	**4,700**	**51**	---	**76**	**96**	**31**	**420**	**2,600**	**TAME=240** Other oxygenates ND
1/9/03		28.34	3.57	**2,600**	**120**	---	**9.9**	**17**	**9.8**	**150**	**890**	**TBA=1,500** **TAME =94** Other oxygenates ND
1/30/03		29.21	2.70	**4,800**	**460**	---	**19**	**28**	**41**	**281**	**470**	**TBA=730** **TAME =52** Other oxygenates ND
3/12/03		28.73	3.18	**5,900**	**710**	---	**21**	**42**	**56**	**530**	**210**	**TBA=480** **TAME =28** Other oxygenates ND
4/17/03		29.30	2.61	**4,200**	**250**	---	**15**	**30**	**53**	**500**	**110**	**TBA=340** **TAME =18** Other oxygenates ND

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	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
OW-3 Continued												
5/14/03		27.90	4.01	1,300	110	---	3.1	2.1	12	57	52	TBA=140 TAME =6.8 Other oxygenates ND
6/10/03		26.74	5.17	2,600	150	---	14	2.5	23	92	150	TBA = 1,900 TAME = 110 Other oxygenates ND
7/16/03		25.18	6.73	1,900	180	---	8.1	3.2	27	106	490	TBA = 620 TAME = 43 Other oxygenates ND
8/15/03		24.13	7.78	3,300	---	---	62	51	42	164	1,900	TBA = 1,200 TAME = 220 Other oxygenates ND
9/16/03		23.28	8.63	4,600	---	---	130	140	50	233	1,200	TBA = 440 TAME =190 Other oxygenates ND
10/15/03		22.63	9.28	3,600	---	---	69	85	17	158	720	TBA = 260 TAME =230 Other oxygenates ND
11/19/03		23.19	8.72	2,700	---	---	27	39	10	90	530	TBA = 170 TAME =75 Other oxygenates ND
12/11/03		26.14	5.77	3,600	180	---	49	160	39	272	ND<150	TBA = 57 TAME =30 Other oxygenates ND
1/14/04		28.82	3.09	4,300	160	---	35	160	66	540	48	TAME =18 Other oxygenates ND
2/9/04		28.55	3.36	3,700	160	---	6.6	25	18	200	61	TAME =14 Other oxygenates ND
3/10/04		28.21	3.70	2,100	93	---	3.7	18	12	127	28	TBA = 50 TAME = 6.7 Other oxygenates ND
4/14/04		27.50	4.41	4,300	150	---	18	52	45	300	96	TBA = 120 TAME = 29 Other oxygenates ND
5/13/04		27.07	4.84	3,200	190	---	11	39	36	269	62	TBA = 67 TAME = 17 Other oxygenates ND
6/24/04		25.37	6.54	2,300	280	---	27	45	30	262	440	TBA = 1,200 TAME = 100 Other oxygenates ND
7/27/04		24.27	7.64	3,400	220	---	53	39	30	203	720	TBA = 1,400 TAME = 140 Other oxygenates ND

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1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Groundwater Measurements: Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	Analytical Results: TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
OW-3 Continued												
8/26/04		23.51	8.40	**1,500**		---	**26**	**23**	**17**	**187**	**68**	**TBA = 41** **TAME = 23** Other oxygenates ND
9/21/04		22.95	8.96	**2,700**	---	---	**70**	**73**	**43**	**277**	**180**	**TAME = 58** Other oxygenates ND
10/19/04		22.88	9.03	**3,600**	**1,200**	---	**74**	**59**	**43**	**620**	**71**	**TAME = 35** Other oxygenates ND
2/16/05		26.56	5.35	**4,100**	**410**	---	**24**	**18**	**52**	**440**	**200**	**TAME = 77** **TBA = 1,300** Other oxygenates ND
3/15/05		26.09	5.82	**5,300**	**570**	---	**20**	**21**	**83**	**920**	**320**	**TAME = 85** **TBA = 800** Other oxygenates ND
5/12/05		28.00	3.91	**3,300**	**130**	---	**5.3**	**9.8**	**16**	**212**	ND<10	**TAME = 3.0** Other oxygenates ND
OW-4												
11/20/01	28.82	19.70	9.12	---	---	---	---	---	---	---	---	---
2/5/02		25.21	3.61	**23,000**	**1,200**	---	**480**	**890**	**1,500**	**2,360**	**820**	**TAME=110** Other oxygenates ND
5/7/02		24.47	4.35	**30,000**	**1,200**	ND <170	**480**	**520**	**1,800**	**3,200**	**570**	**TAME=170** Other oxygenates ND
8/14/02	31.79	23.73	8.06	**24,000**	ND <62	ND <210	**240**	**140**	**3,100**	**1,382**	**120**	**TAME=24** Other oxygenates ND
11/12/02		22.26	9.53	---	---	---	---	---	---	---	---	---
11/26/02		---	---	---	---	---	---	---	---	---	---	---
12/10/02		---	---	---	---	---	---	---	---	---	---	---
12/23/02		25.95	5.84	**560**	ND <50	---	ND <0.5	ND <0.5	**29**	**22.1**	**260**	**TAME=11** **ETBE=2.8** Other oxygenates ND
1/9/03		27.43	4.36	**2,800**	**590**	---	**7.6**	**4**	**83**	**86**	**150**	**TAME=19** **TBA=310** **ETBE=1.4** Other oxygenates ND
1/30/03		28.77	3.02	**190**	ND<50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	**130**	**TAME=3.9** **TBA=1,100** **ETBE=1.5** Other oxygenates ND
3/12/03		28.42	3.37	**1,800**	**300**	---	ND <0.5	ND <0.5	**30**	**27**	**7.9**	**TBA=72** Other oxygenates ND
4/17/03		29.25	2.54	**2,200**	**390**	---	ND<0.50	**0.60**	**91**	**90**	ND<1.0	Other oxygenates ND
5/14/03		28.50	3.29	**290**	ND<50	---	ND<0.50	ND <0.50	**3.5**	**3.7**	**4.0**	Other oxygenates ND
6/10/03		27.04	4.75	**6,400**	**1,600**	---	**0.88**	**2.8**	**160**	**182**	ND<5.0	Other oxygenates ND
7/16/03		25.43	6.36	**1,900**	**170**	---	ND<0.50	**1.3**	**110**	**97**	ND<1.0	Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
OW-4 Continued												
8/15/03		24.41	7.38	**560**	---	---	ND<0.50	ND<0.50	**47**	**17**	ND<1.0	Other oxygenates ND
9/16/03		---	dry	---	---	---	---	---	---	---	---	---
10/15/03		---	dry	---	---	---	---	---	---	---	---	---
11/19/03		---	dry	---	---	---	---	---	---	---	---	---
12/11/03		25.72	6.07	**1,600**	**270**	---	**6.2**	**0.99**	**51**	**38**	ND<50	Other oxygenates ND
1/14/04		29.14	2.65	**2,000**	**110**	---	ND<0.50	**0.52**	**100**	**54**	**35**	Other oxygenates ND
2/9/04		29.03	2.76	**2,500**	**190**	---	ND<0.50	ND<0.50	**83**	**61**	ND<4.0	Other oxygenates ND
3/10/04		28.71	3.08	**790**	**80**	---	ND<0.50	ND<0.50	**43**	**20**	ND<1.0	Other oxygenates ND
4/14/04		27.69	4.10	**4,700**	**370**	---	ND<0.50	ND<0.50	**160**	**124**	ND<1.0	Other oxygenates ND
5/13/04		27.21	4.58	**1,500**	ND<50	---	ND<0.50	ND<0.50	**81**	**36**	ND<1.0	Other oxygenates ND
6/24/04		24.97	6.82	**2,100**	**160**	---	ND<0.50	**1.2**	**94**	**47**	ND<1.0	Other oxygenates ND
7/27/04		24.34	7.45	**2,100**	**150**	---	ND<0.50	ND<0.50	**100**	**47**	**2.3**	Other oxygenates ND
8/26/04		23.61	8.18	**4,000**	**54**	---	ND<0.50	ND<0.50	**57**	**53**	ND<1.0	Other oxygenates ND
9/21/04		---	dry	---	---	---	---	---	---	---	---	---
10/19/04		22.98	8.81	**500**	**180**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	Other oxygenates ND
2/16/05		26.62	5.17	**4,100**	**580**	---	**3.5**	ND<0.50	**170**	**77**	ND<1.0	Other oxygenates ND
3/15/05		25.77	6.02	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	Other oxygenates ND
5/12/05		28.22	3.57	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
OW-5												
11/20/01	28.76	19.63	9.13	---	---	---	---	---	---	---	---	---
2/5/02		25.54	3.22	**1,600**	**110**	---	**21**	**0.7**	**41**	**4.8**	**210**	**TAME=21** **TBA=24** Other oxygenates
5/7/02		23.70	5.06	**6,800**	**450**	ND <170	**280**	ND <25	**480**	**56**	**640**	**TAME=100** Other oxygenates ND
8/14/02	31.75	23.52	8.23	**Unable to sample due to presence of free product (0.8 feet thick)**						---	---	---
11/12/02		22.26	9.49	---	---	---	---	---	---	---	---	---
1/9/03		27.78	3.97	**390**	**77**	---	**3.5**	**0.95**	**1.7**	**3.5**	**150**	**TBA=82** **TAME=20** Other oxygenates ND
1/30/03		29.22	2.53	**3,000**	**230**	---	**4.7**	ND<0.50	**0.56**	**0.63**	**4,400**	**TBA=730** **TAME=210** **ETBE=1.4** Other oxygenates ND
3/12/03		28.49	3.26	**1,000**	**120**	---	ND <0.5	ND<0.50	**0.94**	ND <0.5	**1,900**	**TBA=22** **TAME=99** Other oxygenates ND
4/17/03		27.49	4.26	**800**	**91**	---	**8.6**	ND <0.50	**15**	**2.0**	**1,100**	**TBA=35** **TAME=98** Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
OW-5 Continued												
5/14/03		26.49	5.26	**210**	**56**	---	**2.5**	ND <0.50	**1.7**	**1.3**	**440**	**TAME=27** Other oxygenates ND
6/10/03		26.70	5.05	**450**	ND <50	---	**11**	ND <0.50	**1.5**	ND <0.5	**330**	**TAME = 25 TBA = 39** Other oxygenates ND
7/16/03		24.89	6.86	**170**	ND <50	---	**2.7**	ND <0.50	**2.4**	ND <0.5	**95**	**TAME = 7.4 TBA = 36** Other oxygenates ND
8/15/03		24.05	7.70	**210**	---	---	ND <0.50	ND <0.50	ND <0.50	**0.51**	**210**	**TAME = 14 TBA = 140** Other oxygenates ND
9/16/03		---	dry	---	---	---	---	---	---	---	---	---
10/15/03		---	dry	---	---	---	---	---	---	---	---	---
11/19/03		---	dry	---	---	---	---	---	---	---	---	---
12/11/03		25.85	5.90	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.5	**6.7**	Other oxygenates ND
1/14/04		28.87	2.88	**52**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.5	**64**	**TAME=1.5** Other oxygenates ND
2/9/04		28.57	3.18	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.4**	Other oxygenates ND
3/10/04		28.34	3.41	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
4/14/04		27.54	4.21	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**1.4**	Other oxygenates ND
5/13/04		26.90	4.85	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	Other oxygenates ND
6/24/04		25.22	6.53	ND <50	ND <50	---	**0.60**	ND <0.50	ND <0.50	ND <0.50	**5.5**	Other oxygenates ND
7/27/04		24.13	7.62	ND <50	ND <50	---	**0.65**	ND <0.50	ND <0.50	ND <0.50	**18**	**TAME = 2.2 TBA = 68** Other oxygenates ND
8/26/04		23.53	8.22	**57**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**45**	**TAME = 3.9** Other oxygenates ND
9/21/04		---	dry	---	---	---	---	---	---	---	---	---
10/19/04		23.00	8.75	**62**	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**4.3**	Other oxygenates ND
2/16/05		26.34	5.41	ND <50	ND <50	---	**0.51**	ND <0.50	ND <0.50	ND <0.50	**4.7**	Other oxygenates ND
3/15/05		25.89	5.86	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**2.5**	Other oxygenates ND
5/12/05		28.23	3.52	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	All oxygenates ND
Domestic Well, Totem Motel												
3/20/95	26.27	---	---	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	---	---
6/11/99		---	---	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	---
8/18/99		---	---	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <3.0	---
12/12/99		23.37	2.90	ND <50	ND <67	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
2/15/00		---	--	ND <50	--	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
5/30/00		---	--	ND <50	--	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
8/29/00		19.07	7.20	ND <50	--	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
11/8/00		19.27	7.00	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND

TABLE 3: GROUNDWATER ELEVATION DATA AND GROUNDWATER ANALYTICAL RESULTS
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1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

	Groundwater Measurements			Analytical Results								
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/l)	TPHd (µg/l)	TPHmo (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)	MTBE (µg/l)	Other Analytes (µg/l)
2/7/01		20.96	5.31	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
4/24/01		21.26	5.01	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	Other oxygenates ND
8/8/01		---	---	ND <50	ND <50	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	**TBA =60** Other oxygenates ND
11/13/01		---	---	ND <50	**57**	---	ND <0.5	ND <0.5	ND <0.5	ND <0.5	ND <0.5	All oxygenates ND
11/20/01		19.02	7.25	---	---	---	---	---	---	---	---	---
2/5/02		24.76	1.51	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
5/7/02		21.67	4.60	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
8/14/02		---	---	---	---	---	---	---	---	---	---	---
11/12/02		18.03	8.24	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
5/14/03		23.64	2.63	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
11/19/03		18.68	7.59	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
2/9/04		25.04	1.23	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
3/10/04		---	---	---	---	---	---	---	---	---	---	---
4/14/04		---	---	---	---	---	---	---	---	---	---	---
5/13/04		21.93	4.34	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
8/26/04		18.77	7.50	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
5/12/05		24.34	1.93	ND <50	ND <50	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	All oxygenates ND
Trailer Park Domestic Well												
5/7/02		---	---	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND
8/15/03		---	6.98	ND <50	ND <50	ND <170	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <0.50	All oxygenates ND

Reference B.M. - Manhole cover at Harding & Douglas Streets; established by tie to County BM "E-6" (elev. 33.57 ft msl Elevations set 5/30/95 by Michael Young & Associates, Crescent

TABLE 4: CHROMIUM ANALYSES RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Total Chromium µg/L	Dissolved Chromium µg/L	Hexavalent Chromium µg/L
MW1			
9/16/03	---	3.9	---
10/15/03	---	ND<10	---
11/19/03	---	ND<10	---
12/11/03	---	ND<10	---
1/14/04	---	ND<10	---
2/9/04	---	4.9	---
3/10/04	---	ND<10	---
4/14/04	---	ND<10	---
5/13/04	---	ND<10	---
8/26/04	---	ND<10	---
9/21/04	---	ND<10	---
10/19/04	---	ND<10	---
2/16/05	130	ND<10	---
3/15/05	---	ND<10	---
5/12/05	---	ND<10	---
MW2			
8/15/03	12	ND<10	ND<10
9/16/03	---	35	---
10/15/03	---	26	---
11/19/03	---	57	---
12/11/03	---	22	---
1/14/04	---	23	---
2/9/04	---	18	---
3/10/04	---	25	---
4/14/04	---	29	---
5/13/04	---	31	---
8/26/04	---	40	---
9/21/04	---	56	---
10/19/04	---	48	---
2/16/05	33	25	---
5/12/05	---	21	---
MW4			
8/15/03	190	ND<10	ND<10
9/16/03	---	1.0	---
10/15/03	---	ND<10	---
11/19/03	---	ND<10	---
12/11/03	---	ND<10	---
1/14/04	---	ND<10	---
2/9/04	---	7.7	---
3/10/04	---	ND<10	---
4/14/04	---	ND<10	---
5/13/04	---	ND<10	---
8/26/04	---	ND<10	---
9/21/04	---	ND<10	---
10/19/04	---	ND<10	---
2/16/05	74	ND<10	---
5/12/05	---	ND<10	---

TABLE 4: CHROMIUM ANALYSES RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Total Chromium µg/L	Dissolved Chromium µg/L	Hexavalent Chromium µg/L
MW5			
8/8/03	---	---	32
8/15/03	67	57	64
9/16/03	---	43	---
10/15/03	---	61	---
11/19/03	---	72	---
12/11/03	---	55	---
1/14/04	---	26	---
2/9/04	---	44	---
3/10/04	---	81	---
4/14/04	---	39	---
5/13/04	---	18	---
8/26/04	---	ND<10	---
9/21/04	---	ND<10	---
10/19/04	---	ND<10	---
2/16/05	ND<10	ND<10	---
3/15/05	---	ND<10	---
5/12/05	---	ND<10	---
MW6			
9/16/03	---	---	ND<1.0
10/15/03	---	ND<10	---
11/19/03	---	ND<10	---
12/11/03	---	ND<10	---
1/14/04	---	ND<10	---
2/9/04	---	1.7	---
3/10/04	---	ND<10	---
4/14/04	---	ND<10	---
5/13/04	---	ND<10	---
8/26/04	---	ND<10	---
9/21/04	---	ND<10	---
10/19/04	---	ND<10	---
2/16/05	ND<10	ND<10	---
5/12/05	---	ND<10	---
MW7			
9/16/03	---	---	ND<1.0
10/15/03	---	ND<10	---
11/19/03	---	ND<10	---
12/11/03	---	ND<10	---
1/14/04	---	ND<10	---
2/9/04	---	1.3	---
3/10/04	---	ND<10	---
4/14/04	---	ND<10	---
5/13/04	---	ND<10	---
8/26/04	---	ND<10	---
9/21/04	---	ND<10	---
10/19/04	---	ND<10	---
2/16/05	ND<10	ND<10	---
5/12/05	---	ND<10	---

TABLE 4: CHROMIUM ANALYSES RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Total Chromium µg/L	Dissolved Chromium µg/L	Hexavalent Chromium µg/L
MW8			
8/15/03	65	59	62
9/16/03	---	50	---
10/15/03	---	98	---
11/19/03	---	ND<10	---
12/11/03	---	ND<10	---
1/14/04	---	ND<10	---
2/9/04	---	260	---
3/10/04	---	480	---
4/14/04	---	120	---
5/13/04	---	56	---
8/26/04	---	ND<10	---
9/21/04	---	ND<10	---
10/19/04	---	ND<10	---
2/16/05	ND<10	ND<10	---
5/12/05	---	ND<10	---
OW3			
9/16/03	---	2.5	---
12/11/03	---	ND<10	---
1/14/04	---	ND<10	---
2/9/04	---	2.4	---
3/10/04	---	ND<10	---
4/14/04	---	ND<10	---
5/13/04	---	ND<10	---
8/26/04	---	1,600	---
10/19/04	---	ND<10	---
2/16/05	ND<10	ND<10	---
3/15/05	---	ND<10	---
5/12/05	---	ND<10	---
OW4			
12/11/03	---	ND<10	---
1/14/04	---	ND<10	---
2/9/04	---	1.6	---
3/10/04	---	12	---
4/14/04	---	ND<10	---
5/13/04	---	ND<10	---
8/26/04	---	ND<10	---
10/19/04	---	ND<10	---
2/16/05	ND<10	ND<10	---
3/15/05	---	ND<10	---
5/12/05	---	ND<10	---
OW5			
12/11/03	---	ND<10	---
1/14/04	---	ND<10	---
2/9/04	---	2.2	---
3/10/04	---	ND<10	---
4/14/04	---	ND<10	---
5/13/04	---	ND<10	---
8/26/04	---	ND<10	---
10/19/04	---	ND<10	---
2/16/05	ND<10	ND<10	---
3/15/05	---	ND<10	---
5/12/05	---	ND<10	---

TABLE 4: CHROMIUM ANALYSES RESULTS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

WELL/ Sample Date	Total Chromium µg/L	Dissolved Chromium µg/L	Hexavalent Chromium µg/L
PZ1			
8/8/03	---	---	ND<10
SP3D			
8/15/03	460	400	---
DW			
8/26/04	---	ND<10	---

TABLE 5: RESULTS OF VAPOR SAMPLE ANALYSIS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Analytical Results					
	Date	Benzene (ppbv)	Toluene (ppbv)	Ethylbenzene (ppbv)	m,p-xylene (ppbv)	o-xylene (ppbv)	MTBE (ppbv)
VP-1	**11/26/02**	8,600	240	26,000	16,000	640	61,000
	2/12/03	---	---	---	---	---	---
	3/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<18	ND<18	ND<18	ND<18	ND<18	14,000
	9/30/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	33
	10/29/03	ND<5.0	8.4	ND<5.0	5.7	ND<5.0	28
	1/28/04	ND<5.0	6.5	ND<5.0	ND<5.0	ND<5.0	21
	2/9/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	15
	5/13/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6.8
	9/21/04	7.3	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6.5
	11/1/04	ND<5.0	7.2	ND<5.0	6.4	ND<5.0	ND<5.0
	2/16/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	5/12/05	---	---	---	---	---	---
VP-2	**11/26/02**	10,000	120,000	36,000	140,000	36,000	98,000
	2/12/03	ND<5.0	7.3	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	3/12/03	ND<5.0	17	ND<5.0	7.1	7.8	1,800
	6/10/03	ND<20	ND<20	ND<20	ND<20	ND<20	13,000
	9/30/03	ND<5.0	ND<5.0	15	51	ND<5.0	91
	10/29/03	ND<500	ND<500	ND<500	ND<500	ND<500	560
	1/28/04	ND<5.0	9.6	ND<5.0	ND<5.0	ND<5.0	7.1
	2/9/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	23
	5/13/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	45
	9/21/04	ND<5.0	9.2	ND<5.0	ND<5.0	ND<5.0	65
	11/1/04	ND<5.0	5.2	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	2/16/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<10.0
	5/12/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	46
VP-3	**11/26/02**	56	660	510	1,800	450	ND<5.0
	2/12/03	ND<5.0	10	ND<5.0	5.5	ND<5.0	ND<5.0
	3/12/03	ND<5.0	6.6	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<5.0	6.3	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/30/03	ND<5.0	5.8	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	10/29/03	ND<5.0	8.1	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	1/28/04	---	---	---	---	---	---
	2/9/04	---	---	---	---	---	---
	5/13/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/21/04	ND<5.0	5.8	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/1/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	2/16/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	5/12/05	---	---	---	---	---	---

TABLE 5: RESULTS OF VAPOR SAMPLE ANALYSIS
HPI / Crescent City Shell, PFP; LACO Project No. 5282.01
1006 N. Highway 101, Crescent City, CA; Case No. 1TDN026

		Analytical Results					
	Date	Benzene (ppbv)	Toluene (ppbv)	Ethylbenzene (ppbv)	m,p-xylene (ppbv)	o-xylene (ppbv)	MTBE (ppbv)
VP-4	**11/26/02**	5,800	670	610	1,100	ND<500	ND<500
	2/12/03	ND<5.0	16	ND<5.0	ND<5.0	ND<5.0	5.6
	3/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<5.0	7.6	ND<5.0	5.0	ND<5.0	ND<5.0
	9/30/03	ND<5.0	8.5	ND<5.0	6.5	ND<5.0	ND<5.0
	10/29/03	ND<5.0	7.4	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	1/28/04	---	---	---	---	---	---
	2/9/04	---	---	---	---	---	---
	5/13/04	ND<5.0	10	ND<5.0	17	ND<5.0	ND<5.0
	9/21/04	ND<5.0	7.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/1/04	ND<5.0	5.6	ND<5.0	5.6	ND<5.0	ND<5.0
	2/16/04	ND<5.0	8.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	5/12/05	---	---	---	---	---	---
VP-5	**11/26/02**	25	140	170	450	100	ND<5.0
	2/12/03	ND<5.0	18	ND<5.0	ND<5.0	ND<5.0	6.0
	3/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<5.0	6.1	ND<5.0	6.4	ND<5.0	31
	9/30/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	10/29/03	ND<5.0	6.4	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	1/28/04	---	---	---	---	---	---
	2/9/04	---	---	---	---	---	---
	5/13/04	ND<5.0	5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/21/04	ND<5.0	5.2	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/1/04	ND<5.0	5.3	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	2/16/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	5/12/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
VP-6	**11/26/02**	ND<5.0	32	30	82	19	17
	2/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	3/12/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	6/10/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/30/03	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	10/29/03	---	---	---	---	---	---
	1/28/04	---	---	---	---	---	---
	2/9/04	---	---	---	---	---	---
	5/13/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	9/21/04	ND<5.0	5.4	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	11/1/04	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	2/16/04	ND<5.0	5.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	5/12/05	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0

CHART 1: COMBINED TPH, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-1

PFP Crescent City Shell; LACO No. 5282.01

Case No. 1TDN026

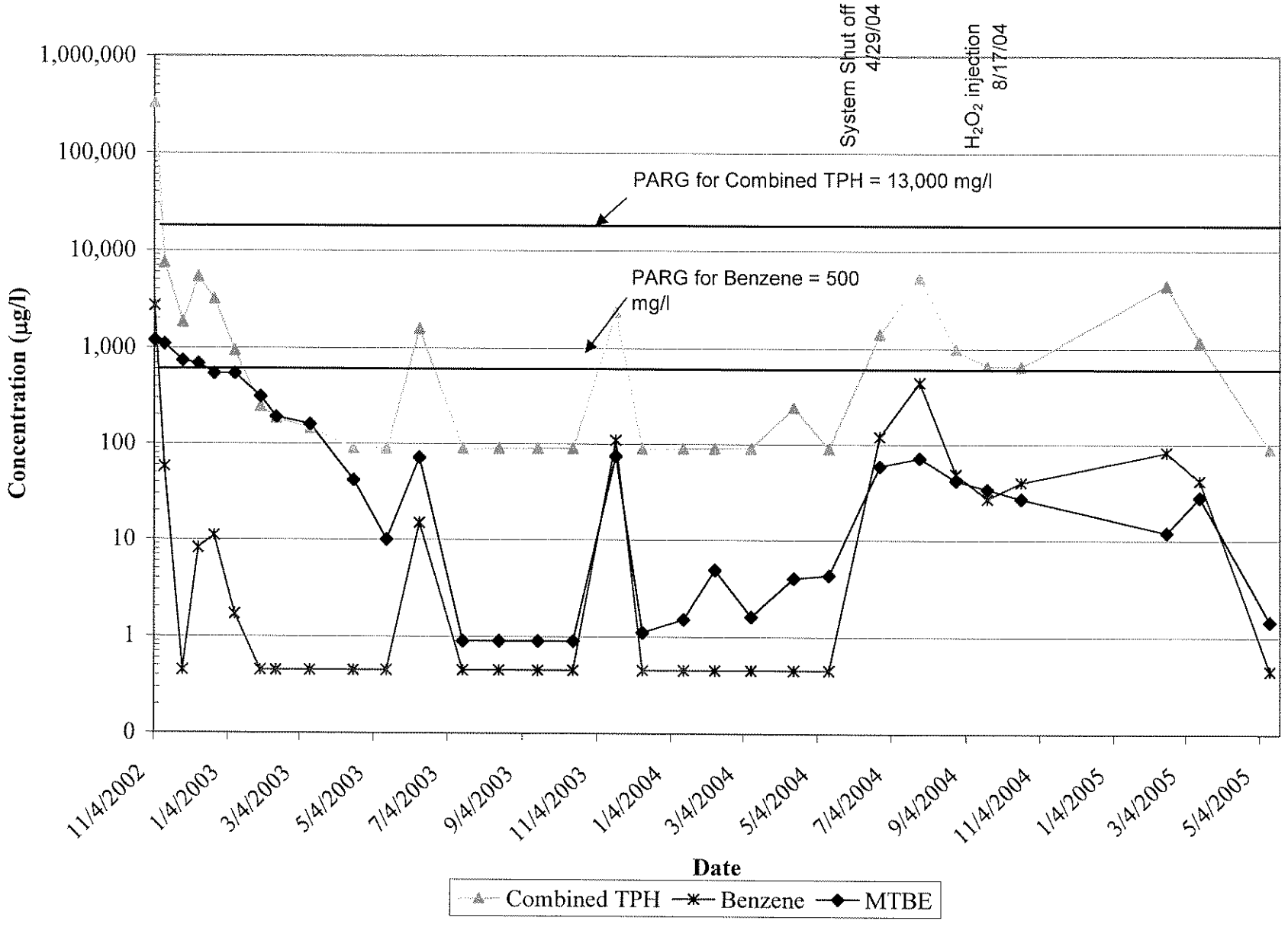


CHART 2: TPHg, TPHd, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-2
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026

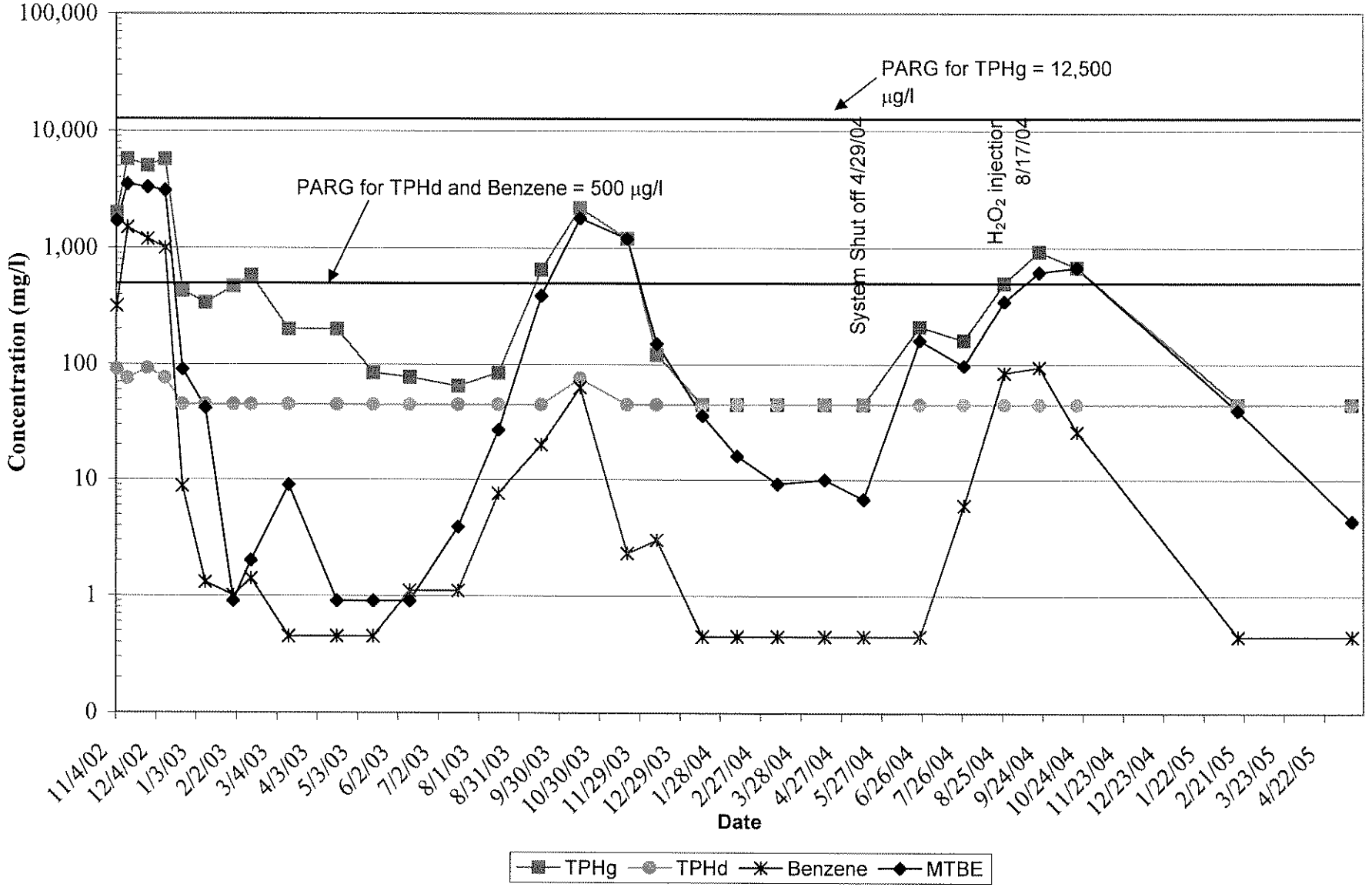


CHART 3: TPHg, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-5
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026

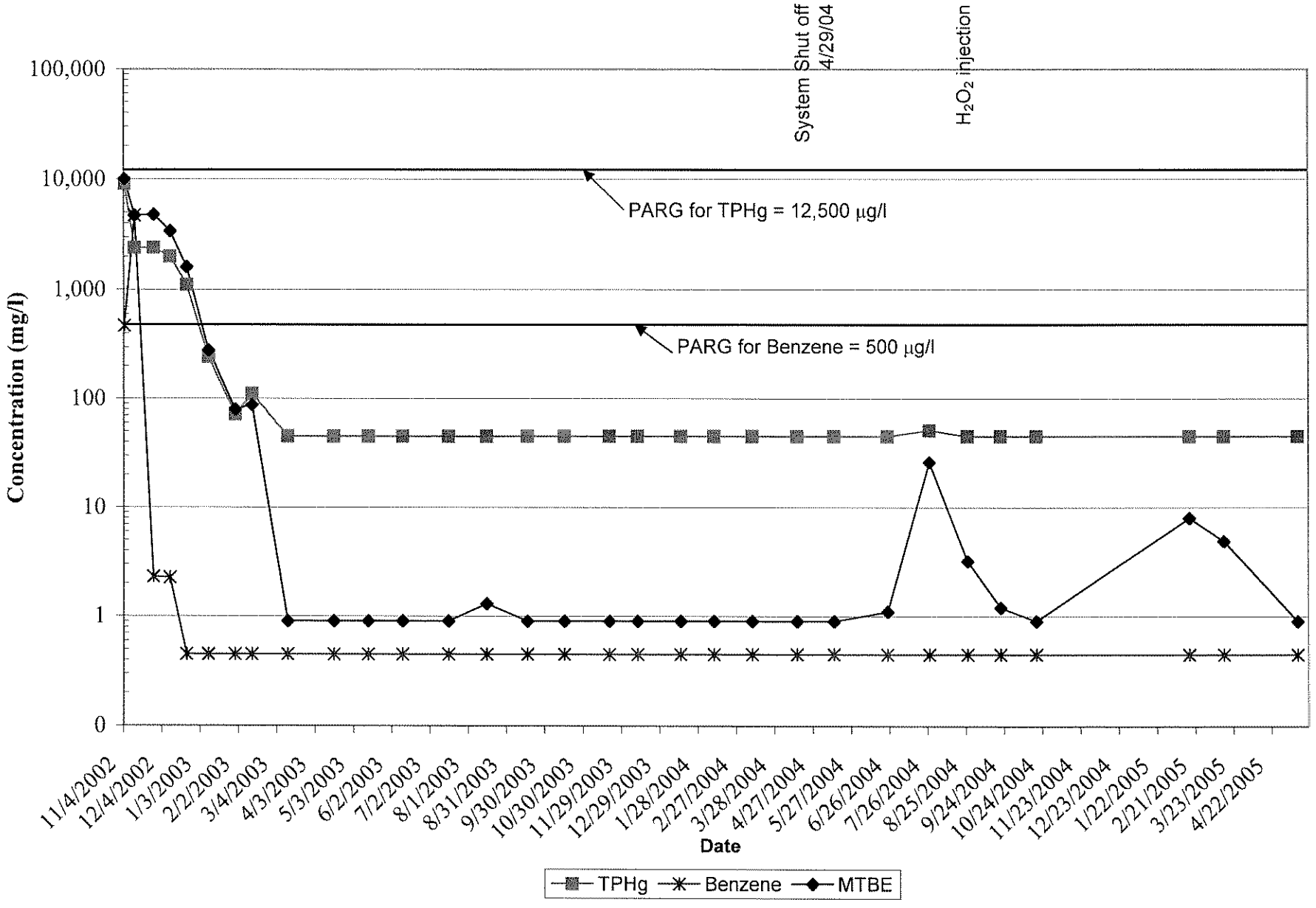


CHART 4: TPHg, TPHd, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-6
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026

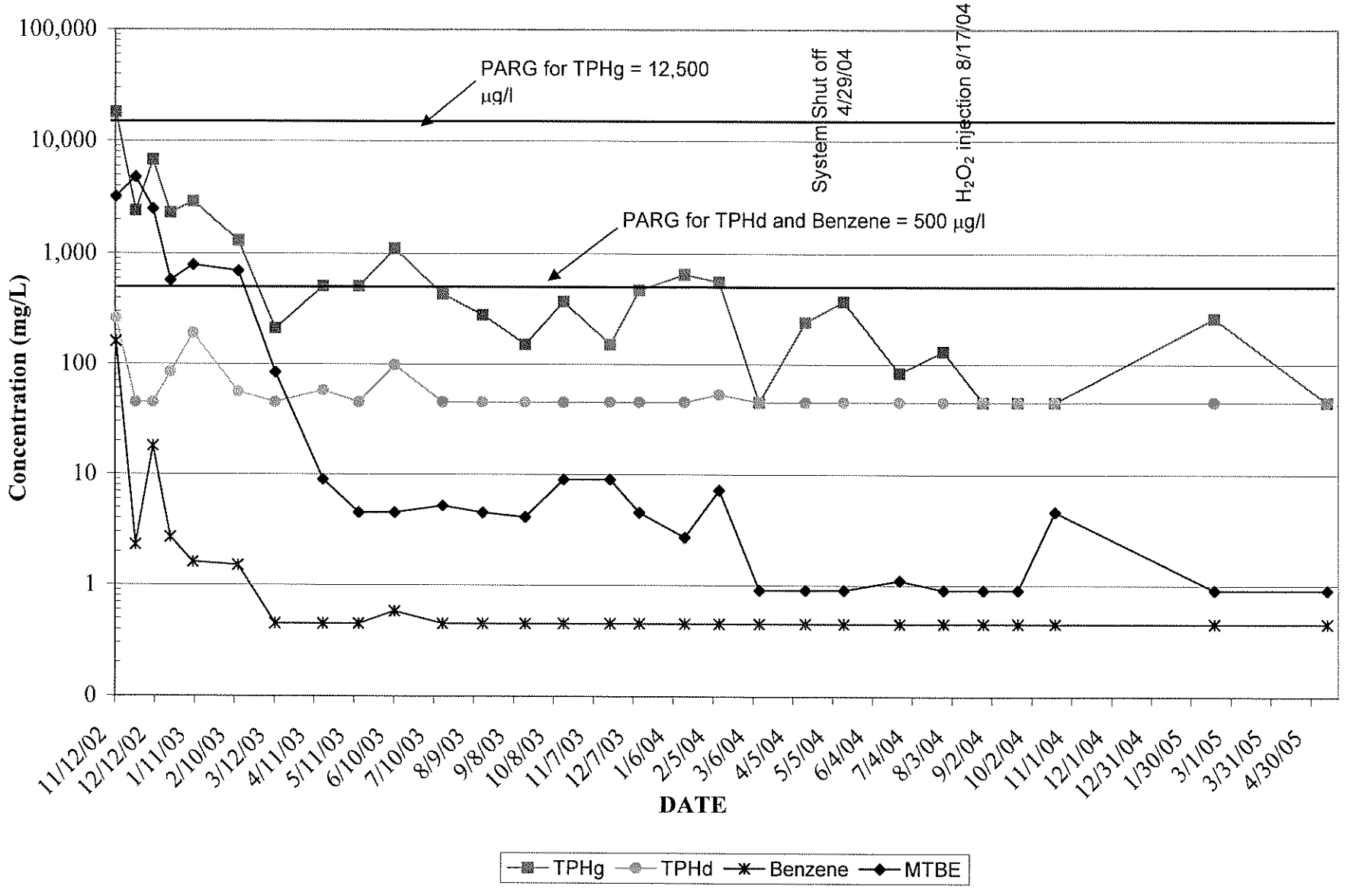


CHART 5: TPHg, BENZENE, and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-7
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026

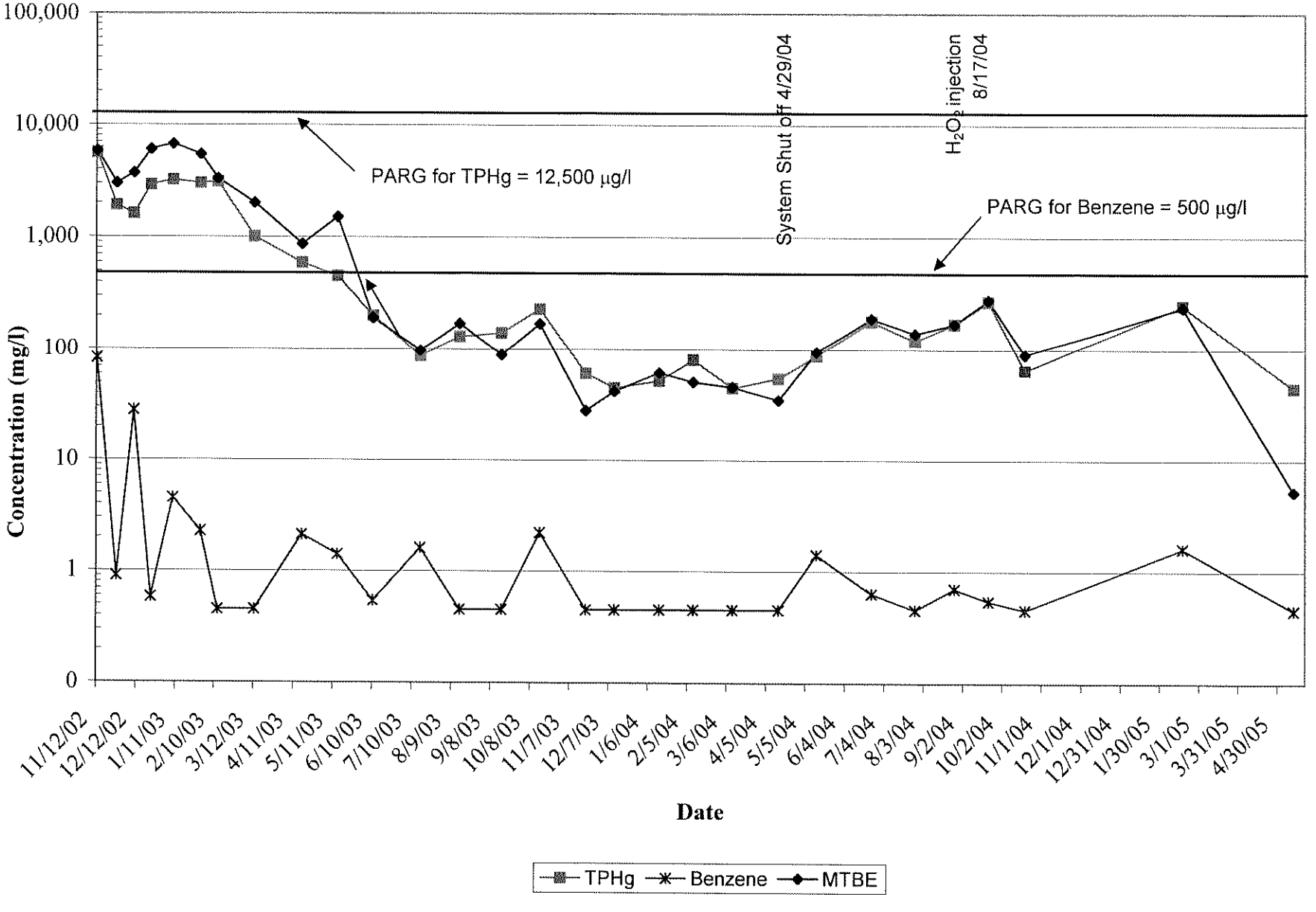
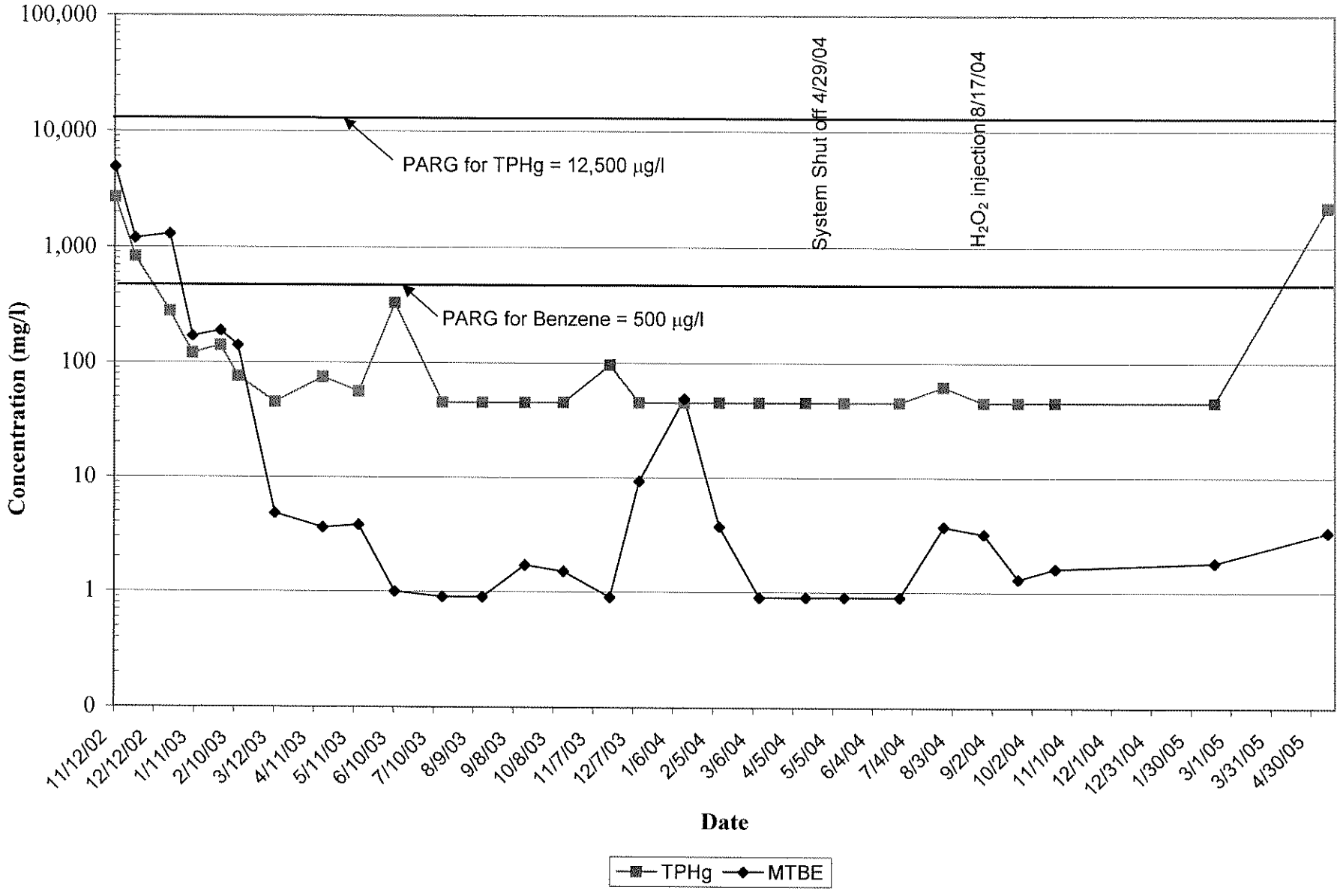


CHART 6: TPHg and MTBE CONCENTRATIONS IN GROUNDWATER IN MW-8
PFP Crescent City Shell; LACO No. 5282.01
Case No. 1TDN026



Attachment 1

KEY TO ABBREVIATIONS	
Alk	-- Alkalinity
As	-- Arsenic
B	-- Bailer; diameter specified
BTEX	-- Benzene; Toluene; Ethylbenzene; m,p- and o- Xylenes
CAM	-- Cam Pump
Cl	-- Chloride
CO_2	-- Carbon dioxide
COC	-- Chain of custody
Cr	-- Chromium
DHP	-- Down-hole-pump (submersible pump)
DIPE	-- Di-isopropyl Ether
Dis	-- Dissolved
DO	-- Dissolved Oxygen; accuracy range of the DO meter is ± 0.3 mg/L
DTW	-- Depth-to-Water
ECw	-- Electrical Conductivity in water; accuracy range of the ECw meter is ± 20 µmohs
ETBE	-- Ethyl Tertiary Butyl Ether
Fe	-- Iron
FP	-- Free Product
Mn	-- Manganese
MTBE	-- Methyl Tertiary Butyl Ether
N	-- Nitrogen
ND<50	-- non-detect at reporting limits shown
NO_3	-- Nitrate
NOT ACTIVE	-- Sample not analyzed for parameter during current sampling event
ORP	-- Oxidation Reduction Potential; accuracy range of the ORP meter is ± 2 mV
P	-- Phosphorous
PCP/TCP	-- penta- tetra- tri- chlorophenols
pH	-- Potential of hydrogen; accuracy range of the pH meter is ± 0.2 pH
SGC	-- Silica gel cleanup
SO_4	-- Sulfate
T	-- Temperature; accuracy range of the temperature meter is ± 0.5 °C
T&P	-- Tape and Paste
TAME	-- Tertiary Amyl Methyl Ether
TBA	-- Tetiary Butyl Alcohol
TBF	-- Tertiary Butyl Formate
TIC	-- Total Inorganic Carbon
TOC	-- Total Organic Carbon
Tot	-- Total
TPHd	-- Total Petroluem Hydrocarbons as Diesel
TPHg	-- Total Petroluem Hydrocarbons as Gasoline
TPHk	-- Total Petroluem Hydrocarbons as Kerosene
TPHmo	-- Total Petroluem Hydrocarbons as Motor Oil
TPHs	-- Total Petroluem Hydrocarbons as Solvent
µg/L	-- Micro grams per liter (parts per billion)

Attachment 2

PROJECT CHRONOLOGY

Humboldt Petroleum, Incorporated, Crescent City Shell
100 North Highway 101, Crescent City, California
CRWQCB Case No. 1TDN026; LACO Project No. 5882.01

October 7-11, 2002	Lake's Well Drilling (Lake's) and LACO ASSOCIATES (LACO) installed 16 sparge points in nine sparge wells.
October 9, 2002	LACO and a representative of the Northern California Regional Water Quality Control Board (NCRWQCB) collected the initial baseline split samples. They were submitted to North Coast Laboratories (NCL) and Alpha Analytical for analysis of the contaminants of concern (COCs).
October 10-11, 2002	Lake's and LACO installed the first three vapor monitoring points.
October 11-18, 2002	Julien Construction installed the distribution network and control shed.
October 11, 2002	Northridge Electrical began the installation of the electrical service to the sparge system.
October 18, 2002	Northridge Electrical made the final connections of the electrical system and installed the outlets and meter in the control shed.
November 4, 2002	LACO and a representative of the NCRWQCB collected follow-up split samples of monitoring wells MW1, MW2, and MW5. They were submitted to NCL and Alpha Analytical for analysis. Later in the day, the generator panels were delivered and installed in the shed. The sparge points were connected, a pressure test was performed, and the system was operational.
November 7, 2002	Lake's and LACO installed three additional monitoring wells, to be paired with the shallow wells OW3 through OW5. These wells were requested by the NCRWQCB following the observation that the shallow wells frequently ran dry in low groundwater months.
November 8, 2002	Lake's and LACO installed the final three vapor monitoring points.
November 12, 2002	LACO sampled the newly installed monitoring wells under the observation of a representative of the Del Norte County Department of Environmental Health (DNCDEH), who also observed the operation of the system.
November 26, 2002	LACO performed a systems check and sample collection. A LACO technician reported Unit 2 station pressures between 10 and 20 pounds per square inch (psi).
December 8, 2002	LACO performed a systems check. The oxygen booster for Unit 1 was installed and turned on by a LACO technician. The solenoid on Port 8 of Unit 2 was discovered to be intermittently staying open.
December 10, 2002	LACO performed a systems check and sample collection.
December 26, 2002	LACO performed a systems check and sample collection. The LACO technician still reported low pressures in Unit 2.

January 9, 2003	LACO performed a systems check and sample collection. The LACO technician discovered that Unit 1 had been off since the last visit. Unit 1 was turned back on. The oxygen booster for Unit 2 was installed. A crack in the air compressor piston for Unit 2 was discovered. The air compressor was removed and Unit 2 turned off.
January 16, 2003	LACO performed a systems check. The LACO technician installed the new air compressor for Unit 2 and turned on the oxygen booster. The pressure in the ports on Unit 2 returned to the normal range (29 to 41 psi).
January 21, 2003	LACO performed a systems check. LACO discovered the run time clock for Unit 2 had not been working since approximately December 18, 2002. The run time error was caused by an improper setting on the current sensing relay. No problems were discovered with the rest of the system. The current relay was reset to its operational range and the dial was taped in place.
January 30, 2003	LACO performed a systems check and LACO and a representative of the NCRWQCB collected split samples for the 25 percent milestone. They were submitted to NCL and Alpha Analytical for analysis of the COCs.
February 12, 2003	LACO performed a systems check and collected performance monitoring samples. This event coincided with the quarterly sampling for the remainder of the wells associated with this site. Additionally, this event marked the transition to monthly sampling for the Pay-for-Performance (PFP) project wells. While running the pressure test for the ozone panels, the technician noted that Unit 2 was not receiving any power. The run time clock indicated that the short circuit occurred on February 7, 2003.
February 13, 2003	A LACO senior technician visited the site to diagnose the reason for the lack of power in Unit 2. It was determined that the main power receptacle into the unit had experienced a short circuit. The receptacle was dismantled, and a replacement part was ordered.
February 14, 2003	LACO technicians replaced the receptacle and performed a pressure test. During the pressure test, tubing into Port 5 of Unit 1 sheared off after being bumped. The damaged section was replaced. The cracked tubing between the backflow valve and the well head connection for sparge point 2S was noticed after an inspection prompted by abnormally high pressure during the Unit 2 pressure test. The section of tubing was replaced and the pressure test proceeded normally. Both units were left up and running.
March 3-4, 2003	Lake's and LACO installed three continuous core borings to 16 feet below ground surface (bgs) for the collection of soil samples. Hydropunch borings were installed adjacent to each continuous core, with groundwater samples collected from water-bearing zones identified in the continuous cores. Monitoring wells MW6 through MW8 were redeveloped due to anomalous depth-to-water (DTW) readings. The sparge system was shut off during the installations. The crew performed a pressure test at the end of the field activities. All readings were within the normal range.

March 7, 2003	Humboldt Petroleum, Incorporated (HPI) performed periodic vacuum tests of the vapor recovery system and found that the lines were not holding pressure. It was determined that one of the borings had compromised the vapor recovery line. The station was shut down pending repairs.
March 10-11, 2003	Beacom Construction began repair of the vapor recovery line. LACO personnel were onsite to monitor activities. A small hole in the vapor recovery line was found to have been caused by the boring installation. It was able to be repaired with a patch and was completely sealed at the end of the first day. The second day was spent performing repairs to the secondary containment system for the product piping lines into the dispensers. The ozone system was shut down at the start of work on March 10, 2003, and restarted at the end of work on March 11, 2003.
March 12, 2003	LACO performed monthly performance monitoring. An additional round of vapor samples was collected to document any vapor release associated with the breach in the vapor recovery line.
April 17, 2003	LACO performed monthly performance monitoring. The ozone generator for Unit 1 was noticed to be turned off, apparently since the last site visit. It was also noted that the air compressor in Unit 1 sounded "rough/choppy." The field technician noted that the supply tubing on sparge point SP4S was cracked; this was fixed. It was noted that sparge point SP4D had leaky backflow valve at the well head; this was replaced. A slight ozone leak from the master panel of Unit 1 was noted, but all connections were tested and found to be tight.
April 29, 2003	LACO performed a mid-cycle site check to sample vapor points for fugitive ozone using a Dräger pump with an ozone detector tube. Arrived on site and found Unit 1 down. The technicians determined the problem to be a shorted out main power switch. The technicians disconnected the switch and called KVA to have a replacement sent out overnight. Ozone concentrations were measured at the port and wellhead of sparge point SP1S, and in vapor points VP1 and VP2. Technicians replaced the air filter on Unit 2 air compressor, and the particulate filter on the Unit 2 oxygen concentrator.
May 2, 2003	The Project Manager (PM) arrived on site to replace the main power switch. After replacing the switch, the air compressor was found to be operating at sub-normal pressures. The head was removed from the compressor body and it was discovered that the rubber band around the piston was shredded. KVA was called to have a replacement piston and gasket set shipped. The PM completed the pressure test on Unit 2 and switched out Teflon tubing from two of the unused ports on Unit 2 with two ports that were in use. LACO will use these new lines to monitor the buildup of the discoloration.

May 5, 2003	The PM arrived on site to replace the piston. After taking the air compressor apart to make the repair, LACO noticed that the shaft through which the piston travels was cracked. The PM called KVA for a replacement air compressor.
May 8, 2003	The PM arrived on site to replace air compressor; pressure output was still sub-normal. A soap solution was used to check for leaks and it was found that the seal in the head was not tight. As a gasket set that was shipped out for the previous compressor was not brought, the leak could not be fixed. The system was left off.
May 9, 2003	The senior technician replaced the gasket and ran pressure test on Unit 1. All pressures were normal.
May 14, 2003	The technicians arrived on site for quarterly monitoring. The technicians performed system checks on both units; all appeared normal and operational.
June 2, 2003	The technician arrived on site for a systems check. Found the GFI on Unit 1 had tripped. Reset the GFI. Run time indicated that the system shut down on May 26, 2003, at 0335.
June 10, 2003	The technicians arrived on site for monthly performance monitoring with vapor monitoring postponed from last month due to pump failure. Found Unit 1 down with shorted and melted GFI and main power switch. Found that neither unit was grounded. Grounded both units and replaced shorted parts. Run times in Unit 1 indicated failure occurred on June 3, 2003, at 2146. Unit was restarted at 1445 on June 10, 2003.
June 15, 2003	The PM arrived on-site to perform systems check on both Units 1 and 2; all appeared normal and operational.
June 24, 2003	The technician arrived on site to perform a system check. Unit 1 appears normal and operational. Compression fittings on Stations 4 and 5 of Unit 2 were observed to be leaking; the technician replaced compression fittings; all appears normal and operational.
July 9, 2003	The technician arrived on-site to perform systems check. Several of the ports on Unit 1 were observed to have leaking compression fittings; compression fittings on Stations 2, 4, and 5 were replaced. Compression fittings on Stations 1 and 6 of Unit 1 may still need to be replaced. Nothing unusual was observed on Unit 2. Units were left operational.
July 16, 2003	The technicians arrived on site for monthly performance monitoring. Performed system checks on both units; all appeared operational. The front supports for the Unit 2 compressor were observed to be cracked.
July 22, 2003	A staff geologist and drill crew visited the site to install two soil borings (B15 and B16) adjacent to borings B12 and B13 to assess the possible degradation of sorbed-phase contaminants on site. Soil and respective depth hydro-punch samples were collected from the two borings. A systems check was performed on both units by the staff geologist during that visit. The compression fitting for Station 2 on Unit 2 was replaced. All else appeared functional.

July 28, 2003	The technician arrived on site to perform a system check on both Units 1 and 2. The HDPE tubing was not connected from Station 6 to Unit 1, the tubing was re-connected and the unit then appeared fully operational. The compression fitting for Station 8 on Unit 2 was replaced. Nothing else unusual was observed and the units were left operational.
August 8, 2003	The technicians arrived on site to collect groundwater samples to analyze for chromium and replaced the HDPE tubing at the C-Sparger and well heads with Teflon tubing. The HDPE tubing experiencing ozone corrosion was replaced with Teflon and Teflon lined LDPE tubing on Stations 3 and 9 on Unit 1 and stations 1 to 3 on Unit 2 at the C-Sparger system. The HDPE tubing was replaced with Teflon tubing at well heads 1S to 4S, 6S, 7S, 1D to 3D, and 7D. In addition, the compression fitting on the Unit 1 compressor outflow was replaced.
August 15, 2003	The technicians arrived on site for monthly performance monitoring. A systems check was not performed due to lack of time.
August 25, 2003	The technicians arrived on site to perform a systems operation and maintenance check on Units 1 and 2. The technician noted the top of the main power plug on Unit 1 appeared burnt around the black wire, but the wire appeared fine. The C-Sparger on Unit 2 was non-operational upon arrival and the rain-bird had an error reading on its display. The technician observed the main power switch to the unit was burnt; the technician removed the main power switch and hot wired the unit. The oxygen compressors for both units were turned off. Pressure tests were performed on both units and both units were left running upon departure.
September 2, 2003	The PM and a technician arrived on site to replace the main power switches and associated wiring on both Units 1 and 2. A yellowish, acidic smelling liquid was observed in the Teflon feed tube from the oxygen compressor to the ozone unit on Unit 1; a similar liquid was observed in the pressure release valve, below the ozone unit, on Unit 2. This liquid may be nitric acid, resulting from the passive flow of ambient air through the oxygen booster that had been off since the August 25, 2003, visit. A system pressure test was performed; a leak was observed and noted for Port 8 on Unit 2. The tubing was replaced and both units were left in good condition.
September 16, 2003	The technicians arrived on site for monthly performance monitoring and to perform the systems operation and maintenance check on Units 1 and 2. Both units were fully operational.
September 30, 2003	The technician arrived on site for quarterly monitoring and system check. Found singed wires on the master relay of Unit 1 – unit not operational. The technician removed and cleaned the wire before replacing. A system check was run on both units.
October 10, 2003	The technician arrived on site for the bi-monthly performance monitoring. The master circuit breaker had tripped, which the technician reset. The Unit 1 case fan was non-operational and was replaced.

October 15, 2003	The technicians arrived on site for the monthly performance monitoring and to perform the systems operation and maintenance check on Units 1 and 2. Both units were fully operational.
October 29, 2003	The technicians arrived on site to perform the systems operation and maintenance check on Units 1 and 2. Leaks were discovered in the HDPE lines to Stations 2 and 6 on Unit 1, and station 4 on Unit 2. Compression fittings were replaced on the three lines. Both units were left in good condition.
November 19, 2003	The technicians arrive on-site to collect quarterly groundwater monitoring samples. A systems check was not performed due to time constraints.
December 11, 2003	The technicians arrived on site to perform the monthly performance monitoring in conjunction with a split sampling event to meet requirements for the 75 percent milestone. Leon Perrault of the DNCEHD collected duplicate samples. In addition, a systems operation and maintenance check was performed on both Units 1 and 2. Unit 1 was not running when the technician arrived; a fuse was found in the off position. A systems check was attempted on Unit 1, but the fuse failed and Unit 1 was left non-operational. The line pressure on Station 8 of Unit 2 was over-range and it was believed that the line might be plugged. Unit 2 was left in good condition and operational.
January 12, 2004	The technicians arrived on site to replace the air compressors on both Units 1 and 2. In addition, a surge protector outlet was installed on each unit. Both units were left in good condition and operational.
January 14, 2004	A LACO technician arrived on site to perform the monthly performance monitoring and the systems operation and maintenance check. Both Units 1 and 2 were fully operational.
January 28, 2004	A LACO technician arrived on site to collect vapor samples from vapor extraction wells VP1 and VP2. Vapor samples were not collected from vapor extraction wells VP3 through VP6 due to the shallow saturated conditions.
February 9, 2004	LACO technicians arrived on site to collect the quarterly groundwater samples. A monthly systems operation and maintenance check was also performed. Both Units 1 and 2 were observed to be operational.
February 25, 2004	The technicians arrived on site to perform the systems operation and maintenance check. Unit 1 was fully operational. The new compressor on Unit 2 was observed to be non-operational. The compressor was removed to be rebuilt as the drive shaft was broken.
February 26, 2004	The technicians arrived on site to replace the compressor. Unit 2 was left in operating condition.
March 10, 2004	LACO technicians arrived on site to collect the monthly groundwater samples.
March 16, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Unit 1 was observed to be operational. Unit 2 was taken off-line to return the failed compressor to the shop.

March 24, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational.
April 6, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational.
April 14, 2004	The technicians arrived on site to collect the monthly groundwater samples. A systems operation and maintenance check was also performed. Both Units 1 and 2 were observed to be operational.
April 20, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational.
April 29, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Both Units 1 and 2 were observed to be operational. System run times were reduced to 1 minute per sparge point in order to test for rebound while keeping the sparge points pressurized.
May 13, 2004	LACO technicians arrive on site to collect quarterly groundwater samples. Vapor samples were collected from vapor extraction wells VP1 through VP6. A systems operation and maintenance check was also performed. Both Units 1 and 2 were observed to be operational.
June 7, 2004	LACO technicians arrived on site to remove the oxygen concentrator and KV sparge panel for Unit 1. Unit 1, Lines 1 through 6, was connected to Unit 2, Lines 1 through 6 (using Kynar tube times 3-Tees). The LACO technicians performed a systems operation and maintenance check. Unit 2 was observed to be operational.
June 24, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Monthly groundwater sampling was also performed. Unit 2 was observed to be operational.
July 27, 2004	LACO technicians arrived on site to perform monthly groundwater sampling.
August 11, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Unit 2 was observed to be operational.
August 17, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Unit 2 was observed to be operational, and the Station 5 solenoid was rebuilt. Additionally, a compressor filter was installed, and a peroxide injection was performed on site.
August 26, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. Unit 2 was observed to be operational, and the Station 6 solenoid was rebuilt. Quarterly groundwater sampling was also performed.
September 21, 2004	LACO technicians arrived on site to perform monthly groundwater sampling. Vapor points were also sampled for laboratory analysis.
October 18, 2004	LACO technicians arrived on site to develop observation wells OW3, OW4, and OW5.
October 19, 2004	LACO technicians arrived on site to perform quarterly groundwater sampling.

November 15, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check.
December 13, 2004	LACO technicians arrived on site to perform a systems operation and maintenance check. A gauge was replaced and a fitting was replaced on lower stem No. 2.
January 12, 2005	LACO technicians arrived on site to perform a systems operation and maintenance check.
February 16, 2005	LACO technicians arrived on site to perform a systems operation and maintenance check and quarterly groundwater sampling. Tubing fittings were replaced on Station 7.
March 15, 2005	LACO technicians arrived on site to perform a systems operation and maintenance check. The 1207 compressor was completely rebuilt and a new snubber and pressure gauge was added. Additionally, groundwater samples were collected to confirm the air compressor is properly operating.
April 11, 2005	LACO technicians arrived on site to perform a systems operation and maintenance check.
April 14, 2005	LACO technicians arrived on site to perform a systems operation and maintenance check.
May 12, 2005	LACO technicians arrived on site to perform quarterly ground water sampling. Vapor points were also sampled for laboratory analysis.
May 17, 2005	LACO technicians arrived on site to perform a systems operation and maintenance check. Wells MW8 and OW4 were re-developed.

P:\5200\5282 PFP CC Shell\Project mgmt\project chronology.doc

Attachment 3

LACO ASSOCIATES CONSULTING ENGINEERS	PROJECT WELL DEVELOPMENT	BY SJD	SHEET NO.
21 W. 4th Street Eureka, California 95502 707-443-5054	LOCATION C. CITY SHELL	DATE 5-16-05	1
	CLIENT	CHECKED	JOB NO.
		DATE 5/17/05	5282.01

C. CITY SHELL - HP1

5-16-05

SCOPE: WELL REDEVELOPMENT

ONSITE: 11:20 AM

REDEVELOP MW8 AND OW4 USING SURGE BLOCK APPROXIMATELY 25 MINUTES PER WELL, ADDING H_2O THROUGHOUT PROCESS.

PURGE WELLS WITH CAM PUMP UNTIL PURGE WATER RUNS CLEAR.

OFFSITE: 1:20 pm

MW8 H_2O IN: 4 GALLONS H_2O OUT: 5 GALLONS

OW4 H_2O IN: 3 GALLONS H_2O OUT: 3 GALLONS

LACO ASSOCIATES CONSULTING ENGINEERS	PROJECT Crescent City Shell	BY BWW	SHEET NO. 1/1
21 W. 4th Street Eureka, California 95502 707-443-5054	LOCATION	DATE	
	CLIENT HPI	CHECKED	JOB NO. 5282.01
		DATE 5/12/05	

5/12/05

TIME: 1330; BEGIN SAMPLE

- Purged all sample ports 50-60 strokes
- Filled (2/3 full) Tedlar bags
  - VP1 - OK
  - VP2 - OK
  - VP3 - water in line
  - VP4 - water in line
  - VP5 - OK
  - VP6 - OK
- Sent samples to Airtoxics via FedEx

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

Page 1 of 1

Contact Person: CHRISTINE MANHART
Company: LACO ASSOCIATES
Address: 21. W. 4th ST City: EUREKA State: CA Zip: 9552(
Phone: (707) 443-5054 FAX: (707) 443.0553
Collected By: Signature

Project Info:
P.O. #
Project #: 5282.01
Project Name: HPI/CC SHELL

Turn Around Time:
☑ Normal
☐ Rush _____ Specify

Lab ID	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	5282.1 VP1	1300 05/12/05	BTEX / MTBE BY TO14			
	5282.1 VP2					
	5282.1 VP5					
	5282.1 VP6					

Relinquished By: (Signature) Date/Time	Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time	Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time	Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None	

Form 1253 rev. 09

FedEx Express — US Airbill

FedEx Tracking Number: 8508 4047 7276

Form ID No. 0215

SAC23

Sender's Copy

Please print and press hard.

5/12/05

Sender's FedEx Account Number: 1222-1316-1

's BRIAN NELSON — Phone (707) 443-5054

any LACO ASSOCIATES

ss 21 W 4TH ST — Dept./Floor/Suite/Room

EUREKA — State CA — ZIP 95501-0216

Internal Billing Reference
haracters will appear on invoice.

ent's AIR TOXICS LTd — Phone (916) 985 1000

any

ent's ss 1800 BLUE RAVINE Rd Suite B — Dept./Floor/Suite/Room

ot deliver to P.O. boxes or P.O. ZIP codes.

ss

t a package be held at a specific FedEx location, print FedEx address here.

FOLSOM — State CA — ZIP 95630-4719

4a Express Package Service — *Packages up to 150 lbs.* * To most locations

- [x] FedEx Priority Overnight — Next business morning*
- [ ] FedEx Standard Overnight — Next business afternoon*
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations*
- [ ] FedEx 2Day — Second business day*
- [ ] FedEx Express Saver — Third business day*

FedEx Envelope rate not available. Minimum charge: One-pound rate

4b Express Freight Service — *Packages over 150 lbs.* ** To most locations

- [ ] FedEx 1Day Freight* — Next business day**
- [ ] FedEx 2Day Freight — Second business day**
- [ ] FedEx 3Day Freight — Third business day**

* Call for Confirmation:

5 Packaging — * Declared value limit $500

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling — Include FedEx address in Section 3.

- [ ] **SATURDAY Delivery** — Available ONLY for FedEx Priority Overnight, FedEx 2Day, FedEx 1Day Freight, and FedEx 2Day Freight to select ZIP codes
- [ ] **HOLD Weekday** at FedEx Location — NOT Available for FedEx First Overnight
- [ ] **HOLD Saturday** at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Yes — Shipper's Declaration not required
- [ ] Dry Ice — Dry Ice, 9, UN 1845 _____ x _____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment *Bill to:* — Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. — Exp. Date

Total Packages	Total Weight	Total Declared Value†
1		$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details.

FedEx Use Only

8 Sign to Authorize Delivery Without a Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

466

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By using this Airbill you agree to the service conditions on the back of this Airbill and in our current Service Guide, including terms that limit our liability.

Questions? Visit our Web site at fedex.com or call 1.800.GoFedEx 1.800.463.3339.

0304830549

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AN ENVIRONMENTAL ANALYTICAL LABORATORY

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

Page 1 of 1

Contact Person: CHRISTINE MANHART
Company: LACO ASSOCIATES
Address: 21. W. 4th ST City: EUREKA State: CA Zip: 9552(
Phone: (707) 443-5054 FAX: (707) 443.0553
Collected By: Signature

Project Info:
P.O. #
Project #: 5282.01
Project Name: HPI/CC SHELL

Turn Around Time:
☑ Normal
☐ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	5282.1 VP1	1300 05/12/05	BTEX / MTBE BY TO14			
	5282.1 VP2					
	5282.1 VP5					
	5282.1 VP6					

Relinquished By: (Signature) Date/Time	Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time	Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time	Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None	

Form 1293 rev. 09

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI/PFP C.C. Shell
Project No.: 5282.01
Date: 3/15/2005
Golbal ID No.: T0601500022
PM: CSM

Tech: BWN
Mob/Demob time: .5/.5
Travel time: 2.00/1.75
Time on site: 0930
Time off site: 1330
Mileage: 180

WELL No.:	MW1		MW2		MW4		MW5		MW6	
DIAMETER (in)	2.00		2.00		2.00		4.00		2.00	
SCREENED INTERVAL (ft)	5-15		5-15		4-14		4-19		10 - 14	
DEPTH TO WATER (ft)	5.71						5.98			
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	7.69	7.42					7.91	7.31		
TEMP (°C)	15.8	15.2					15.5	15.0		
Ecw (µmohs)	372	389					293	301		
ORP (mV)	-49	-8					5	33		
DO (mg/L)	7.95	8.71					10.71	10.59		
OTHER (units)										
PURGE: TIME	1242	1250					1308	1314		
METHOD (DHP/CB/B)	DHP						DHP			
RATE (Lpm)	0.14 Lpm						.2 Lpm			
VOLUME (L)	1.8						1.4			
COLOR	TAN →	CLEAR					CLEAR →			
ODOR	NONE						NONE			
INTAKE DEPTH (FEET)	10.0						12.0			
SAMPLE: TIME	1251						1315			
METHOD (DHP/CB/B)	DHP						DHP			
ANALYTES	8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	0.67						0.31			
REMARKS										
WELL CONDITION	Good						Good			
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI/PFP C.C. Shell
Project No.: 5282.01
Date: 3/15/2005
Golbal ID No.: T0601500022
PM: CSM

Tech: BWN
Mob/Demob time: .5 / .5
Travel time: 2.00 / 1.75
Time on site: 0930
Time off site: 1330
Mileage: 180

WELL No.	MW7		MW8		OW3		OW4		OW5	
DIAMETER (in)	1.25		1.25		1.10		1.10		1.10	
SCREENED INTERVAL (ft)	10-15		10-15		5 - 10		5 - 10		5 - 10	
DEPTH TO WATER (ft)					5.82		6.02		5.86	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH					6.67	6.57	7.45	7.39	6.99	6.92
TEMP (°C)					16.3	16.6	15.4	15.1	15.2	14.8
Ecw (µmohs)					418	480	357	354	342	354
ORP (mV)					-67	-67	-84	-72	-71	-52
DO (mg/L)					0.39	0.49	1.16	1.19	0.46	0.36
OTHER (units)										
PURGE: TIME					1029	1030	1100	1101	1122	1123
METHOD (DHP/CB/B)					CAM PUMP		CAM PUMP		CAM PUMP	
RATE (Lpm)					.2 Lpm		.2 Lpm		.2 Lpm	
VOLUME (L)					.2		.2		.2	
COLOR					CLEAR →		CLEAR →		CLEAR →	
ODOR					NONE		NONE		NONE	
INTAKE DEPTH (FEET)					9.00		9.00		9.00	
SAMPLE: TIME					1031		1102		1124	
METHOD (DHP/CB/B)					CAM		CAM		CAM	
ANALYTES	8260 list 1; Diss. Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)					~3.00		~3.00		~3.00	
REMARKS					NOT MUCH H_2O		→		→	
WELL CONDITION					Good		Good		Good	
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI / PFP CC. SHELL
Project No.: 5282.01
Tech: BWN
Date: 3/15/2005

WELL ID:	METER ACCURACY RANGE				
OW3	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1030	6.57	16.6	480	-67	0.49

WELL ID: OW4

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1101	7.39	15.1	354	-72	1.19

WELL ID: OW5

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1123	6.92	14.8	354	-52	0.36

WELL ID: MW5

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1310	7.50	15.0	300	25	10.82
1312	7.32	15.1	301	32	10.66
1314	7.31	15.1	301	33	10.59

WELL ID: MW1

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1244	7.47	15.2	382	-35	8.54
1246	7.35	15.2	390	-23	8.61
1248	7.41	15.2	389	-10	8.70
1250	7.42	15.2	389	-8	8.71

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

LACO ASSOCIATES
CONSULTING ENGINEERS

21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: 5282.01
Project No.: HPI/DFP CRESCENT CITY SHELL

Tech: BHN
Date: 3/15/2005

WELL ID: OW3		WELL ID: OW4		WELL ID: OW5		WELL ID: MW1		WELL ID: MW5		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
1000	5.80	1004	6.21	1007	5.84	1009	5.67	1012	6.09		
1015	5.82	1045	6.02	1116	5.86	1235	5.71	1300	5.99		
		1058	6.02	1120	5.86						

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER:

Attention: Christine Manhart
Results & Invoice to: LACO Associates
Address: 21 W. 4th St., Eureka, CA 95501
Phone: (707) 443-5054
Copies of Report to: HPI; Jim Seiler
Sampler (Sign & Print): BWN

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 5282.01
Project Name: HPI/PFP CC Shell
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1	ANALYSIS: DISS Cr	ANALYSIS: TPHd w/SGC	CONTAINER	PRESERVATIVE
								9	b	2	-	7	-
	5282-MW1-W				3	1	1		
	5282-MW5-W				3	1	1		
	5282-OW3-W				3	1	1		
	5282-OW4-W				3	1	1		
	5282-OW5-W				3	1	1		
	5282-TB-W				1				

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI/PFP C.C. Shell
Project No.: 5282.01
Date: 5-12-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD
Mob/Demob time: .50 / .50
Travel time: 2.15
Time on site: 7:40 / 1:00
Time off site: 1:30 / 2:45
Mileage: 95

WELL No.:	MW1		MW2		MW4		MW5		MW6	
DIAMETER (in)	2.00		2.00		2.00		4.00		~~2.00~~ 1.25	
SCREENED INTERVAL (ft)	5-15		5-15		4-14		4-19		10 - 14	
DEPTH TO WATER (ft)	3.37		2.29		3.28		3.51		5.05	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH			6.86	6.65					6.40	6.47
TEMP (°C)			15.7	15.3					17.7	17.3
Ecw (µmohs)			126	120					178	180
ORP (mV)			55	121					38	91
DO (mg/L)			7.80	7.28					3.56	0.94
OTHER (units)										
PURGE: TIME			9:32	9:46					11:35	11:49
METHOD (DHP/CB/B)			DHP						CAM PUMP	
RATE (Lpm)			0.18						0.18	
VOLUME (L)			2.50						2.50	
COLOR			CLEAR	CLEAR					CLEAR	CLEAR
ODOR			SLIGHT SWEET						SLIGHT LICORICE	
INTAKE DEPTH (FEET)			10.0						12.0	
SAMPLE: TIME			9:48						11:51	
METHOD (DHP/CB/B)			DHP						CAM PUMP	
ANALYTES	8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)			0.11						6.01	
REMARKS										
WELL CONDITION			good						good	
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

REVISED:5/4/2005

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI/PFP C.C. Shell
Project No.: 5282.01
Date: 5-12-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD
Mob/Demob time: .50/.50
Travel time: 2.15
Time on site: 7:40/1:00
Time off site: 1:30/2:45
Mileage: 95

WELL No.:	MW7		MW8		OW3		OW4		OW5	
DIAMETER (in)	1.25		1.25		1.10		1.10		1.10	
SCREENED INTERVAL (ft)	10-15		10-15		5 - 10		5 - 10		5 - 10	
DEPTH TO WATER (ft)	3.99		3.35		3.91		3.57		3.52	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	7.11	7.20	6.69	6.70	6.64	6.67	7.28	7.22	7.29	7.21
TEMP (°C)	18.6	15.7	18.2	17.0	17.2	17.5	17.5	16.2	17.7	15.5
Ecw (µmohs)	278	288	332	323	247	228	299	302	293	298
ORP (mV)	75	86	-13	-5	-47	-36	4	38	5	40
DO (mg/L)	3.32	7.77	1.01	0.68	1.76	1.21	3.95	2.16	1.46	0.38
OTHER (units)	—		—		—		—		—	
PURGE: TIME	12:11	12:21	2:01	2:07	11:12	11:18	2:17	2:25	1:38	1:44
METHOD (DHP/CB/B)	CAM PUMP		CAM PUMP		CAM PUMP		CAM PUMP		CAM PUMP	
RATE (Lpm)	0.20		0.20		0.20		0.20		0.20	
VOLUME (L)	2.0		1.20		1.20		1.60		1.20	
COLOR	CLEAR	CLEAR	LT. BROWN/ ORANGE TURBID	→	CLEAR	CLEAR	CLEAR	CLEAR W/ SAND PARTICLES	CLEAR	CLEAR
ODOR	NONE		LIGHT FUEL		MED. RUBBER / FUEL				SLIGHT SULFUR	
INTAKE DEPTH (FEET)	13.0		13.0		9.0		9.0		9.0	
SAMPLE: TIME	12:23		2:09		11:20		2:27		1:46	
METHOD (DHP/CB/B)	CAM PUMP		CAM PUMP		CAM PUMP		CAM PUMP		CAM PUMP	
ANALYTES	8260 list 1; Diss. Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	6.42		2.15		1.81		1.28		0.68	
REMARKS	—		—		—		—		—	
WELL CONDITION	good		good		good		good		good	
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

REVISED:5/4/2005

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CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI/PFP C.C. Shell
Project No.: 5282.01
Date: 5/12/2005
Golbal ID No.: T0601500022
PM: CSM

Tech: ~~SJD~~ BWN
Mob/Demob time: 1.25/1.25
Travel time: 2.25
Time on site: 0800/1300
Time off site: 1330/1430
Mileage: 120

WELL No.:	MW1		MW2		MW4		MW5		MW6	
DIAMETER (in)	2.00		2.00		2.00		4.00		2.00	
SCREENED INTERVAL (ft)	5-15		5-15		4-14		4-19		10 - 14	
DEPTH TO WATER (ft)	3.37		—		3.28		3.51		—	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	6.8	7.1			6.9	6.5	7.6	7.1		
TEMP (°C)	16.0	16.0			15.3	15.3	15.4	15.6		
Ecw (µmohs)	488	505			333	336	336	328		
ORP (mV)	167	157			177	190	144	161		
DO (mg/L)	7.76	7.53			7.32	6.53	9.40	9.23		
OTHER (units)	—				—		—			
PURGE: TIME	0952	0958			1054	1100	1024	1032		
METHOD (DHP/CB/B)	DHP				DHP		DHP			
RATE (Lpm)	0.23				0.24		0.18			
VOLUME (L)	1.4				1.5		1.4 L			
COLOR	TAN →				TAN →		CLEAR →			
ODOR	NONE				NONE		NONE			
INTAKE DEPTH (FEET)	10				10		12			
SAMPLE: TIME	0959				1101		1033			
METHOD (DHP/CB/B)	DHP				DHP		DHP		CAM PUMP	
ANALYTES	8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	1.10		—		0.97		0.00		—	
REMARKS	FIELD FILTER		—		—		—		—	
WELL CONDITION	TUBING FULL OF SILT		—		SILT IN TUBING		SILT IN TUBING		—	
WASTE DRUMS	NEED NEW PURGE DRUM ONSITE									

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

LACO ASSOCIATES
CONSULTING ENGINEERS
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Project Name: HPI/PFP C.C. Shell
Project No.: 5282.01
Date: 5/12/2005
Golbal ID No.: T0601500022
PM: CSM

Tech: ~~SJD~~ BWN
Mob/Demob time: .25/.25
Travel time: 2.25
Time on site: 0800/1300
Time off site: 1330/1430
Mileage: 120

WELL No.:	MW7		MW8		OW3		OW4		OW5	
DIAMETER (in)	1.25		1.25		1.10		1.10		1.10	
SCREENED INTERVAL (ft)	10-15		10-15		5 - 10		5 - 10		5 - 10	
DEPTH TO WATER (ft)										
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH										
FIELD INTRINSICS: TEMP (°C)										
FIELD INTRINSICS: Ecw (µmohs)										
FIELD INTRINSICS: ORP (mV)										
FIELD INTRINSICS: DO (mg/L)										
FIELD INTRINSICS: OTHER (units)										
PURGE: TIME										
PURGE: METHOD (DHP/CB/B)										
PURGE: RATE (Lpm)										
PURGE: VOLUME (L)										
PURGE: COLOR										
PURGE: ODOR										
PURGE: INTAKE DEPTH (FEET)										
SAMPLE: TIME										
SAMPLE: METHOD (DHP/CB/B)	CAM PUMP		CAM PUMP		CAM PUMP		CAM PUMP		CAM PUMP	
SAMPLE: ANALYTES	8260 list 1; Diss. Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC		8260 List 1; Diss Cr; TPHd w/SGC	
SAMPLE: TOTAL DRAWDOWN (FEET)										
SAMPLE: REMARKS										
WELL CONDITION										
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: Crescent City Stake - HPI
Project No.: 5282.01
Tech: BWN
Date: 5/12/2005

WELL ID: (3503.03) METER ACCURACY RANGE

PZ1	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
0903	5.8	15.6	255	225	2.86
0905	5.8	15.7	262	222	3.39
0907	5.9	15.8	278	218	3.63
0909	6.0	15.9	282	214	3.68
0911	6.0	15.9	283	212	3.79

WELL ID: MW1

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
0954	7.0	16.1	500	160	7.69
0956	7.1	16.0	504	157	7.58
0958	7.1	16.0	505	157	7.53

WELL ID: MW5

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1026	7.3	15.5	329	155	9.30
1028	7.2	15.5	329	158	9.25
1030	7.1	15.6	328	161	9.23
1032	7.1	15.6	328	161	9.23

WELL ID: MW4

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1056	6.7	15.3	336	186	7.13
1058	6.6	15.3	336	189	6.72
1100	6.5	15.3	336	190	6.53

WELL ID: MW3 (3503.03)

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1138	6.7	15.8	257	105	4.08
1140	6.6	15.8	257	114	3.95
1142	6.5	16.0	256	116	3.80
1144	6.5	16.0	256	115	3.81

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI/PFP C.C. SHELL
Project No.: 5282.01
Tech: SJD
Date: 5-12-05

WELL ID: MW1		WELL ID: MW2		WELL ID: MW4		WELL ID: MW5		WELL ID: MW6		WELL ID: MW7	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
8:27	3.35	8:32	2.24	8:25	3.27	8:11	3.50	8:09	5.03	8:14	3.98
8:40	3.37	8:42	2.27	8:43	3.28	8:31	3.51	8:26	5.05	8:28	3.99
8:48	3.37	8:50	2.29	8:52	3.28	8:53	3.51	8:55	5.05	8:49	3.99
		9:28	2.29								

WELL ID: MW8		WELL ID: OW3		WELL ID: OW4		WELL ID: OW5		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
8:20	3.37	8:07	3.91	8:23	3.57	8:17	3.52				
8:32	3.35	8:28	3.91	8:35	3.57	8:30	3.52				
8:46	3.35										

WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER:

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501
Phone: (707) 443-5054
Copies of Report to: LACO; Christine Manhart
Sampler (Sign & Print): SJD

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 5282.01
Project Name: HPI/PFP C.C. Shell
Purchase Order Number: task 3023

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 list 1 (CONTAINER 9, PRESERVATIVE b)	TPHd w/SGC (CONTAINER 7, PRESERVATIVE ------)	Diss. Cr (CONTAINER 2, PRESERVATIVE ------)
	5282-MW1-W	5-12-05	AM	GW	3	1	1
	5282-MW2-W				3	1	1
	5282-MW4-W				3	1	1
	5282-MW5-W				3	1	1
	5282-MW6-W				3	1	1
	5282-MW7-W				3	1	1
	5282-MW8-W				3	1	1
	5282-OW3-W				3	1	1
	5282-OW4-W				3	1	1
	5282-OW5-W		PM		3	1	1

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER
MW1 - DISS. Cr = FF

cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	5-12-05 4:20 pm	K. Thompson	5/12/05 1620

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER:

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501
Phone: (707) 443-5054
Copies of Report to: LACO; Christine Manhart
Sampler (Sign & Print): SJD

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 5282.01
Project Name: HPI/PFP C.C. Shell
Purchase Order Number: task 3023

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	CONTAINER	PRESERVATIVE	ANALYSIS
	5282-QCTB-W	5-12-05	Pm	GW	9	b	8260 list 1

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	5-12-05 4:20 pm		5/12/05 1620

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

WAGO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: Crescent City Shell - HPI
Project No.: 3503.03
Date: 5-12-05
Golbal ID No.: T0601500022
PM: CSM

Tech: SJD
Mob/Demob time: .25/.25
Travel time: 1.15
Time on site: 7:40/1:00
Time off site: 11:30/2:45
Mileage: 50

WELL No.:	PZ1		OW1		OW2		MW3		DW	
DIAMETER (in)	2.00		1.50		0.50		2.00		6.00	
SCREENED INTERVAL (ft)	5 - 15		5 - 10		5 - 10		5 - 15			
DEPTH TO WATER (ft)	3.38		4.10		4.18		3.72		1.93	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH			6.39	6.45	6.59	6.51			7.33	6.64
FIELD INTRINSICS: TEMP (°C)			16.0	16.2	16.5	16.7			14.4	13.3
FIELD INTRINSICS: Ecw (µmohs)			231	246	268	240			180	169
FIELD INTRINSICS: ORP (mV)			110	54	83	119			-142	-29
FIELD INTRINSICS: DO (mg/L)			4.29	6.54	3.64	5.76			1.15	0.26
FIELD INTRINSICS: OTHER (units)										
PURGE: TIME			10:10	10:24	10:39	10:55			8:58	9:10
PURGE: METHOD (DHP/CB/B)			CAM PUMP		CAM PUMP				DHP	
PURGE: RATE (Lpm)			0.18		0.18				0.17	
PURGE: VOLUME (L)			2.5		2.5				2.0	
PURGE: COLOR			CLEAR	CLEAR	CLEAR	CLEAR			CLEAR	YELLOW TINT
PURGE: ODOR			SLIGHT SULFUR		NONE				NONE	
PURGE: INTAKE DEPTH (FEET)			9.0		9.0				10.0	
SAMPLE: TIME			10:26		10:58				9:12	
SAMPLE: METHOD (DHP/CB/B)			CAM PUMP		CAM PUMP				DHP	
SAMPLE: ANALYTES	DTW & Field Intrinsics Only		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC	
SAMPLE: TOTAL DRAWDOWN (FEET)			4.63		2.02				0.60	
SAMPLE: REMARKS										
WELL CONDITION			good		good				good	
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: CRESCENT CITY SHELL - HPI
Project No.: 3503.03
Tech: SJD
Date: 5-12-05

WELL ID:	METER ACCURACY RANGE				
DW	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
9:00	6.85	13.9	179	-62	0.70
9:02	6.73	13.4	177	-40	0.37
9:04	6.68	13.3	173	-34	0.37
9:06	6.66	13.3	172	-32	0.33
9:08	6.65	13.3	170	-30	0.29
9:10	6.64	13.3	169	-29	0.26

WELL ID: OW1

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:12	6.18	16.1	239	115	3.09
10:14	6.22	16.3	240	90	4.04
10:16	6.25	16.3	242	72	5.65
10:18	6.30	16.3	243	65	6.32
10:20	6.35	16.3	245	56	6.53
10:22	6.39	16.2	245	54	6.58
10:24	6.45	16.2	246	54	6.54

WELL ID: OW2

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:41	6.49	16.5	265	75	2.95
10:43	6.48	16.5	265	84	2.75
10:45	6.48	16.6	263	90	3.80
10:47	6.50	16.6	259	99	4.09
10:49	6.50	16.6	255	108	4.65
10:51	6.51	16.6	248	113	5.32
10:53	6.51	16.7	242	118	5.68
10:55	6.51	16.7	240	119	5.76

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
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FAX 707.443.0553

Project Name: Crescent City Shell - HPI
Project No.: 3503.03
Date: 5/12/2005
Golbal ID No.: T0601500022
PM: CSM

Tech: ~~SJD~~ BWN
Mob/Demob time: .25/.25
Travel time: 1.75 1.75
Time on site: 0800/1300
Time off site: 1330/1430
Mileage: 160

WELL No.:	PZ1		OW1		OW2		MW3		DW	
DIAMETER (in)	2.00		1.50		0.50		2.00		6.00	
SCREENED INTERVAL (ft)	5 - 15		5 - 10		5 - 10		5 - 15			
DEPTH TO WATER (ft)	3.38		—		—		3.32		—	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH	5.8	6.0					7.1	6.5		
TEMP (°C)	15.7	15.9					15.9	16.0		
Ecw (µmohs)	262	283					258	256		
ORP (mV)	225	212					71	115		
DO (mg/L)	2.77	3.79					4.76	3.81		
OTHER (units)	—						—			
PURGE: TIME	9:01	0911					1136	1144		
METHOD (DHP/CB/B)	DHP						DHP			
RATE (Lpm)	0.16						0.20			
VOLUME (L)	1.6L						1.6L			
COLOR	CLEAR	CLEAR					CLEAR →			
ODOR	NONE						NONE			
INTAKE DEPTH (FEET)	10.00						10.00			
SAMPLE: TIME							11:45			
METHOD (DHP/CB/B)			CAM PUMP		CAM PUMP		DHP			
ANALYTES	DTW & Field Intrinsics Only		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC	
TOTAL DRAWDOWN (FEET)	0.00		—		—		0.61		—	
REMARKS	—		—		—		—		—	
WELL CONDITION	GOOD		—		—		WELL BOX MISSING & ONE S/L TAG.		ALL STRIPPED	
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

DHP=DOWN HOLE PUMP CB=CHECK BALL B=BAILER FD=FIELD DUPLICATE MB=METHOD BLANK FF=FIELD FILTERED

CONSULTING ENGINEERS
TEL 707.443.5054
FAX 707.443.0553

Project Name: CRESCENT CITY SHELL - HP1
Project No.: 5282.01
Tech: BWN
Date: 5/20/2005

WELL ID:	METER ACCURACY RANGE				
PZ1	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
0903	5.8	15.6	255	225	2.86
0905	5.8	15.7	262	222	3.39
0907	5.9	15.8	278	218	3.63
0909	6.0	15.9	282	214	3.68
0911	6.0	15.9	283	212	3.79

WELL ID: MW3					
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1138	6.7	15.8	257	105	4.08
1140	6.6	15.8	257	114	3.95
1142	6.5	16.0	256	116	3.90
1144	6.5	16.0	256	115	3.81

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: CRESCENT CITY SHELL - MPI
Project No.: 3503.03
Tech: SJD
Date: 5-12-05

WELL ID: MW3		WELL ID: OW1		WELL ID: OW2		WELL ID: PZ1		WELL ID: DW		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
8:05	3.72	8:02	4.10	8:03	4.18	7:58	3.38	8:56	1.93		
8:23	3.72	8:19	4.10	8:20	4.18	8:17	3.38				

WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)

WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER:

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501
Phone: (707) 443-5054
Copies of Report to: LACO ; CHRISTINE MANHART
Sampler (Sign & Print): SJD

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 3503.03
Project Name: CRESCENT CITY SHELL
Purchase Order Number: task 3023

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1	ANALYSIS: TPHd/mo w/SGC	CONTAINER: 9	CONTAINER: 7	PRESERVATIVE: b	PRESERVATIVE: —
	3503-MW3-W	5-12-05	1AM	GW	3	1				
	3503-DW-W				3	1				
	3503-OW1-W				3	1				
	3503-OW2-W				3	1				
	3503-QCTB-W		PM		1					

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

Cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	5-12-05 4:20 pm		5/12/05 1020

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus ~~Hand~~

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER:

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501
Phone: (707) 443-5054
Copies of Report to: LACO ; CHRISTINE MANHART
Sampler (Sign & Print): SJD

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 3503.03
Project Name: CRESCENT CITY SHELL
Purchase Order Number: task 3023

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1 (CONTAINER: 9, PRESERVATIVE: b)	ANALYSIS: TPHd/mo w/SGC (CONTAINER: 7, PRESERVATIVE: —)
	3503-MW3-W	5-12-05	1AM	GW	3	1
	3503-DW-W	↓	↓	↓	3	1
	3503-OW1-W				3	1
	3503-OW2-W				3	1
	3503-QCTB-W		PM		1	

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

Cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	5-12-05 4:20 pm	[illegible]	5/12/05 1620

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus ~~Hand~~

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Attachment 4

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0505284

Work Order Summary

CLIENT:	Ms. Christine Manhart Laco Associates 21 W. 4th Street Eureka, CA 95501	**BILL TO:**	Ms. Christine Manhart Laco Associates 21 W. 4th Street Eureka, CA 95501
PHONE:	707-443-5054	**P.O. #**	
FAX:	707-443-0553	**PROJECT #**	5282.01 HPI/CC SHELL
DATE RECEIVED:	05/13/2005	**CONTACT:**	Nicole Salengo
DATE COMPLETED:	05/25/2005		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A(cancelled)	5282.1 VP1	Mod. Method TO-14A	Tedlar Bag
02A	5282.1 VP2	Mod. Method TO-14A	Tedlar Bag
03A	5282.1 VP5	Mod. Method TO-14A	Tedlar Bag
04A	5282.1 VP6	Mod. Method TO-14A	Tedlar Bag
05A	Lab Blank	Mod. Method TO-14A	NA
06A	CCV	Mod. Method TO-14A	NA
07A	LCS	Mod. Method TO-14A	NA

CERTIFIED BY: Linda S. Freeman DATE: 05/26/05

Laboratory Director

Certfication numbers: AR DEQ - 03-084-0, CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/04, Expiration date: 06/30/05
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Mod. Method TO-14A
Laco Associates
Workorder# 0505284

Four 1 Liter Tedlar Bag samples were received on May 13, 2005. The laboratory performed the analysis via Modified Method TO-14A using GC/MS in the full scan mode. The method involves direct injection of up to a 40 mL sample aliquot into a vapor management system. Following dehumidification the sample passes directly into the GC/MS for analysis. See the data sheets for the reporting limits of each compound.

Requirement	*TO-14A/TO-15*	*ATL Modifications*
Concentration of IS Spike	10 ppbv (TO-15)	500 ppbv
BFB Acceptance Criteria	CLP protocol (TO-15)	SW-846 protocol
Sampling Drying System	Nafion Dryer (TO-14A)	Multisorbent concentrator
Blank acceptance criteria	< 0.2 ppbv (TO-14A)	<RL.
IS Recovery	TO-15: Within 40 % of mean over ICAL for blanks, and w/in 40 % of daily CCV for samples	Within 40 % of CCV recovery for blank and samples.
Sample volume	Up to 400 mL (TO-14A)	Up to 40 mLs
Initial Calibration	+- 30 % RSD (TO-14A)	</= 30 % RSD with 2 compounds allowed out to < 40 %.
Primary Ions for Quantification	Freon 114: 85, Carbon Tetrachloride: 117, Trichloroethene: 130, Ethyl Benzene, m,p- and o-Xylene: 91	Freon 114: 135, Carbon Tetrachloride: 119, Trichloroethene: 95, Ethyl Benzene, m,p- and o-Xylene: 106
Daily CCV	+- 30 % D	</= 30 % D with 2 allowed out up to 40%; flag associated sample results.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
BFB Tune Absolute Abundance Criteria	Within 10% of that from the previous day. (TO-14A)	CCV Internal Standard area counts are compared to the ICAL; corrective action for > 40 %D.
Dilutions for Initial Calibration	Dynamic dilutions or static using canisters.	Syringe dilutions, bag dilutions.

Receiving Notes

The Chain of Custody was not relinquished properly. The discrepancy was noted in the Sample Receipt Confirmation email/fax.

Sample 5282.1 VP1 was recieved with a discernable volume of water in the Tedlar bag container. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the analysis proceeded.

The Tedlar bag for sample 5282.1 VP1 was found to be deflated at the time of screening. The client was

notified that analysis was not possible.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

AIR TOXICS LTD.

Summary of Detected Compounds

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

Client Sample ID: 5282.1 VP2

Lab ID#: 0505284-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Methyl tert-butyl ether	5.0	46	18	160

Client Sample ID: 5282.1 VP5

Lab ID#: 0505284-03A

No Detections Were Found.

Client Sample ID: 5282.1 VP6

Lab ID#: 0505284-04A

No Detections Were Found.

AIR TOXICS LTD.

Client Sample ID: 5282.1 VP2

Lab ID#: 0505284-02A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	3051314	Date of Collection:	5/12/05
Dil. Factor:	1.00	Date of Analysis:	5/13/05 06:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	46	18	160

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130

AIR TOXICS LTD.

Client Sample ID: 5282.1 VP5

Lab ID#: 0505284-03A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	3051315	Date of Collection:	5/12/05
Dil. Factor:	1.00	Date of Analysis:	5/13/05 06:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130

AIR TOXICS LTD.

Client Sample ID: 5282.1 VP6

Lab ID#: 0505284-04A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	3051316	Date of Collection:	5/12/05
Dil. Factor:	1.00	Date of Analysis:	5/13/05 07:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected

Container Type: 1 Liter Tedlar Bag

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130

AIR TOXICS LTD.

Client Sample ID: Lab Blank

Lab ID#: 0505284-05A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	3051304	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/13/05 01:48 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	108	70-130

AIR TOXICS LTD.

Client Sample ID: CCV

Lab ID#: 0505284-06A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	**3051302**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/13/05 12:51 PM**	

Compound	%Recovery
Benzene	109
Toluene	108
Ethyl Benzene	110
m,p-Xylene	114
o-Xylene	105
Methyl tert-butyl ether	97

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130

AIR TOXICS LTD.

Client Sample ID: LCS

Lab ID#: 0505284-07A

MODIFIED EPA METHOD TO-14A DIRECT INJECT GC/MS

File Name:	3051303	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 5/13/05 01:19 PM	

Compound	%Recovery
Benzene	111
Toluene	109
Ethyl Benzene	107
m,p-Xylene	112
o-Xylene	101
Methyl tert-butyl ether	92

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130

@ AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

Page 1 of 1

Contact Person: CHRISTINE MANHART
Company: LACO ASSOCIATES
Address: 21 W. 4th ST City: EUREKA State: CA Zip: 95521
Phone: (707) 443-5054 FAX: (707) 443.0553
Collected By: Signature

Project Info:
P.O. #
Project #: 5282.01
Project Name: HPI/CC SHELL

Turn Around Time:
☑ Normal
☐ Rush ____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
01A	5282.1 VP1	1300 05/12/05	BTEX / MTBE BY TO14			
02A	5282.1 VP2					
03A	5282.1 VP5					
04A	5282.1 VP6					

Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time 5/13/05 915
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time
Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx	1850 8404 7276		—	Good	Yes No None	0505284

Form 1203 rev. 09

NORTH COAST LABORATORIES LTD.

RECEIVED
LACO ASSOCIATES
APR 07 2005
BY: JG

April 04, 2005

DRG
CSM

LACO Associates
P.O. Box 1023
Eureka, CA 95502

Order No.: 0503386
Invoice No.: 49140
PO No.:
ELAP No. 1247-Expires July 2006

Attn: Christine Manhart

RE: 5282.01, HPI/PFP CC Shell

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	5282-MW1-W
01D	5282-MW1-W
01E	5282-MW1-W (Dissolved)
02A	5282-MW5-W
02D	5282-MW5-W
02E	5282-MW5-W (Dissolved)
03A	5282-OW3-W
03D	5282-OW3-W
03E	5282-OW3-W (Dissolved)
04A	5282-OW4-W
04D	5282-OW4-W
04E	5282-OW4-W (Dissolved)
05A	5282-OW5-W
05D	5282-OW5-W
05E	5282-OW5-W (Dissolved)
06A	5282-TB-W

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s) | QA Unit | Jesse G. Chaney, Jr. Laboratory Director

5680 West End Road • Arcata California 95521-9202 • 707-822-4649 • FAX 707-822-6831

North Coast Laboratories, Ltd. **Date:** *05-Apr-05*

CLIENT: LACO Associates
Project: 5282.01, HPI/PFP CC Shell
Lab Order: 0503386

CASE NARRATIVE

All samples submitted for a silica gel cleanup were initially analyzed for diesel. The samples showing no detectable levels of the analyte were not subjected to the cleanup procedure.

TPH as Diesel with Silica Gel Cleanup:
Sample 5282-OW3-W contains some material lighter than diesel. However, some of this material extends into the diesel range of molecular weights.

Samples 5282-MW1-W and 5282-OW3-W contain material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil.

Gasoline Components/Additives:
Samples 5282-MW1-W and 5282-OW3-W appear to be similar to gasoline but certain peak ratios are not that of a fresh gasoline standard. The reported results represent the amount of material in the gasoline range.

TPH as Diesel:
The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries were above the upper acceptance limit for the surrogate. The LCS/LCSD recoveries for diesel were within the acceptance ltherefore, the data were accepted.

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831

Date: 04-Apr-05
WorkOrder: 0503386

ANALYTICAL REPORT

Client Sample ID: 5282-MW1-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-01A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	28	1.0	µg/L	1.0		3/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/24/05
Benzene	42	0.50	µg/L	1.0		3/24/05
Tert-amyl methyl ether (TAME)	8.7	1.0	µg/L	1.0		3/24/05
Toluene	15	0.50	µg/L	1.0		3/24/05
Ethylbenzene	10	0.50	µg/L	1.0		3/24/05
m,p-Xylene	140	0.50	µg/L	1.0		3/24/05
o-Xylene	58	25	µg/L	50		3/24/05
Surrogate: 1,4-Dichlorobenzene-d4	126	80.8-139	% Rec	1.0		3/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	1,100	50	µg/L	1.0		3/24/05

Client Sample ID: 5282-MW1-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-01D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	68	50	µg/L	1.0	3/24/05	3/31/05
Surrogate: N-Tricosane	93.2	34-145	% Rec	1.0	3/24/05	3/31/05

Client Sample ID: 5282-MW1-W (Dissolved) **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-01E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	3/18/05	3/29/05

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WorkOrder: 0503386

ANALYTICAL REPORT

Client Sample ID: 5282-MW5-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-02A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	4.9	1.0	µg/L	1.0		3/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/24/05
Benzene	ND	0.50	µg/L	1.0		3/24/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/24/05
Toluene	ND	0.50	µg/L	1.0		3/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/24/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/24/05
o-Xylene	ND	0.50	µg/L	1.0		3/24/05
Surrogate: 1,4-Dichlorobenzene-d4	82.8	80.8-139	% Rec	1.0		3/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		3/24/05

Client Sample ID: 5282-MW5-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-02D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	3/24/05	3/31/05
Surrogate: N-Tricosane	85.2	34-145	% Rec	1.0	3/24/05	3/31/05

Client Sample ID: 5282-MW5-W (Dissolved) **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-02E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	3/18/05	3/29/05

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Date: 04-Apr-05
WorkOrder: 0503386

ANALYTICAL REPORT

Client Sample ID: 5282-OW3-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-03A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	320	50	µg/L	50		3/24/05
Tert-butyl alcohol (TBA)	800	10	µg/L	1.0		3/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/24/05
Benzene	20	0.50	µg/L	1.0		3/24/05
Tert-amyl methyl ether (TAME)	85	1.0	µg/L	1.0		3/24/05
Toluene	21	0.50	µg/L	1.0		3/24/05
Ethylbenzene	83	0.50	µg/L	1.0		3/24/05
m,p-Xylene	660	25	µg/L	50		3/24/05
o-Xylene	260	25	µg/L	50		3/24/05
Surrogate: 1,4-Dichlorobenzene-d4	96.7	80.8-139	% Rec	1.0		3/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	5,300	2,500	µg/L	50		3/24/05

Client Sample ID: 5282-OW3-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-03D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	570	50	µg/L	1.0	3/24/05	3/31/05
Surrogate: N-Tricosane	112	34-145	% Rec	1.0	3/24/05	3/31/05

Client Sample ID: 5282-OW3-W (Dissolved) **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-03E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	3/18/05	3/29/05

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Date: 04-Apr-05
WorkOrder: 0503386

ANALYTICAL REPORT

Client Sample ID: 5282-OW4-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-04A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/24/05
Benzene	ND	0.50	µg/L	1.0		3/24/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/24/05
Toluene	ND	0.50	µg/L	1.0		3/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/24/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/24/05
o-Xylene	ND	0.50	µg/L	1.0		3/24/05
Surrogate: 1,4-Dichlorobenzene-d4	83.2	80.8-139	% Rec	1.0		3/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		3/24/05

Client Sample ID: 5282-OW4-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-04D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	3/21/05	3/22/05
Surrogate: N-Tricosane	101	27.6-107	% Rec	1.0	3/21/05	3/22/05

Client Sample ID: 5282-OW4-W (Dissolved) **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-04E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	3/18/05	3/29/05

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WorkOrder: 0503386

ANALYTICAL REPORT

Client Sample ID: 5282-OW5-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-05A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	2.5	1.0	µg/L	1.0		3/24/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/24/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/24/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/24/05
Benzene	ND	0.50	µg/L	1.0		3/24/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/24/05
Toluene	ND	0.50	µg/L	1.0		3/24/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/24/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/24/05
o-Xylene	ND	0.50	µg/L	1.0		3/24/05
Surrogate: 1,4-Dichlorobenzene-d4	83.0	80.8-139	% Rec	1.0		3/24/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		3/24/05

Client Sample ID: 5282-OW5-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-05D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	3/21/05	3/22/05
Surrogate: N-Tricosane	92.2	27.6-107	% Rec	1.0	3/21/05	3/22/05

Client Sample ID: 5282-OW5-W (Dissolved) **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-05E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	3/18/05	3/29/05

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Date: 04-Apr-05
WorkOrder: 0503386

ANALYTICAL REPORT

Client Sample ID: 5282-TB-W **Received:** 3/16/05 **Collected:** 3/15/05 0:00
Lab ID: 0503386-06A **Matrix:** Trip Blank

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/23/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/23/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/23/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/23/05
Benzene	ND	0.50	µg/L	1.0		3/23/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/23/05
Toluene	ND	0.50	µg/L	1.0		3/23/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/23/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/23/05
o-Xylene	ND	0.50	µg/L	1.0		3/23/05
Surrogate: 1,4-Dichlorobenzene-d4	84.0	80.8-139	% Rec	1.0		3/23/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		3/23/05

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Date: 04-Apr-05

CLIENT: LACO Associates
Work Order: 0503386
Project: 5282.01, HPI/PFP CC Shell

QC SUMMARY REPORT

Method Blank

Sample ID **MB 032305** Batch ID: **R34027** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **3/23/05 8:45:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_050323B** SeqNo: **492301**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0									
Tert-butyl alcohol (TBA)	ND	10									
Di-isopropyl ether (DIPE)	ND	1.0									
Ethyl tert-butyl ether (ETBE)	ND	1.0									
Benzene	0.1405	0.50									J
Tert-amyl methyl ether (TAME)	ND	1.0									
Toluene	ND	0.50									
Ethylbenzene	0.08783	0.50									J
m,p-Xylene	0.1286	0.50									J
o-Xylene	0.1618	0.50									J
1,4-Dichlorobenzene-d4	0.851	0.10	1.00	0	85.1%	81	139	0			

Sample ID **MB 032305** Batch ID: **R34024** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **3/23/05 8:45:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_050323A** SeqNo: **492268**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	14.80	50									J

Sample ID **MB-13184P** Batch ID: **13184** Test Code: **ICPX** Units: **µg/L** Analysis Date **3/29/05 12:20:00 PM** Prep Date **3/18/05**
Client ID: Run ID: **INICP1_050329A** SeqNo: **493563**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: LACO Associates
Work Order: 0503386
Project: 5282.01, HPI/PFP CC Shell

QC SUMMARY REPORT

Method Blank

Sample ID **MB-13215** Batch ID: **13215** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **3/31/05 7:42:47 PM** Prep Date **3/24/05**
Client ID: Run ID: **ORGC5_050331A** SeqNo: **494446**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	41.18	50									J
N-Tricosane	48.7	0.10	50.0	0	97.4%	34	145	0			

Sample ID **MB-13196** Batch ID: **13196** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **3/22/05 8:54:35 PM** Prep Date **3/21/05**
Client ID: Run ID: **ORGC7_050322A** SeqNo: **491702**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	ND	50									
N-Tricosane	50.0	0.10	50.0	0	100%	28	107	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 04-Apr-05

CLIENT: LACO Associates
Work Order: 0503386
Project: 5282.01, HPI/PFP CC Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05195** Batch ID: **R34027** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **3/23/05 4:45:00 AM** Prep Date

Client ID: Run ID: **ORGCMS2_050323B** SeqNo: **492298**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.10	1.0	20.0	0	95.5%	80	120	0			
Tert-butyl alcohol (TBA)	524.5	10	400	0	131%	25	162	0			
Di-isopropyl ether (DIPE)	18.56	1.0	20.0	0	92.8%	80	120	0			
Ethyl tert-butyl ether (ETBE)	18.56	1.0	20.0	0	92.8%	77	120	0			
Benzene	18.97	0.50	20.0	0	94.8%	78	117	0			
Tert-amyl methyl ether (TAME)	19.90	1.0	20.0	0	99.5%	64	136	0			
Toluene	18.52	0.50	20.0	0	92.6%	80	120	0			
Ethylbenzene	19.89	0.50	20.0	0	99.5%	80	120	0			
m,p-Xylene	40.24	0.50	40.0	0	101%	80	120	0			
o-Xylene	19.49	0.50	20.0	0	97.5%	80	120	0			
1,4-Dichlorobenzene-d4	1.28	0.10	1.00	0	128%	81	139	0			

Sample ID **LCSD-05195** Batch ID: **R34027** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **3/23/05 5:15:00 AM** Prep Date

Client ID: Run ID: **ORGCMS2_050323B** SeqNo: **492299**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.27	1.0	20.0	0	96.4%	80	120	19.1	0.891%	20	
Tert-butyl alcohol (TBA)	521.5	10	400	0	130%	25	162	524	0.566%	20	
Di-isopropyl ether (DIPE)	18.85	1.0	20.0	0	94.2%	80	120	18.6	1.55%	20	
Ethyl tert-butyl ether (ETBE)	18.12	1.0	20.0	0	90.6%	77	120	18.6	2.42%	20	
Benzene	18.84	0.50	20.0	0	94.2%	78	117	19.0	0.673%	20	
Tert-amyl methyl ether (TAME)	19.98	1.0	20.0	0	99.9%	64	136	19.9	0.396%	20	
Toluene	18.36	0.50	20.0	0	91.8%	80	120	18.5	0.838%	20	
Ethylbenzene	19.74	0.50	20.0	0	98.7%	80	120	19.9	0.774%	20	
m,p-Xylene	40.12	0.50	40.0	0	100%	80	120	40.2	0.306%	20	
o-Xylene	19.46	0.50	20.0	0	97.3%	80	120	19.5	0.158%	20	
1,4-Dichlorobenzene-d4	1.22	0.10	1.00	0	122%	81	139	1.28	4.82%	20	

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limits; B - Analyte detected in the associated Method Blank; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits

CLIENT: LACO Associates
Work Order: 0503386
Project: 5282.01, HPI/PFP CC Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05196** Batch ID: **R34024** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **3/23/05 6:46:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_050323A** SeqNo: **492265**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,037	50	1,000	0	104%	80	120	0			

Sample ID **LCSD-05196** Batch ID: **R34024** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **3/23/05 7:16:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_050323A** SeqNo: **492266**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,022	50	1,000	0	102%	80	120	1,040	1.44%	20	

Sample ID **LCS-13184P** Batch ID: **13184** Test Code: **ICPX** Units: **µg/L** Analysis Date **3/29/05 12:23:00 PM** Prep Date **3/18/05**
Client ID: Run ID: **INICP1_050329A** SeqNo: **493564**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	466.6	10	500	0	93.3%	85	115	0			

Sample ID **LCS-13215** Batch ID: **13215** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **3/31/05 5:46:36 PM** Prep Date **3/24/05**
Client ID: Run ID: **ORGC5_050331A** SeqNo: **494444**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	421.1	50	500	0	84.2%	33	92	0			
N-Tricosane	62.3	0.10	50.0	0	125%	34	145	0			

Sample ID **LCSD-13215** Batch ID: **13215** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **3/31/05 6:15:39 PM** Prep Date **3/24/05**
Client ID: Run ID: **ORGC5_050331A** SeqNo: **494445**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	449.6	50	500	0	89.9%	33	92	421	6.53%	15	
N-Tricosane	64.8	0.10	50.0	0	130%	34	145	62.3	3.86%	15	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: LACO Associates
Work Order: 0503386
Project: 5282.01, HPI/PFP CC Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-13196** Batch ID: **13196** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **3/22/05 7:21:07 PM** Prep Date **3/21/05**
Client ID: Run ID: **ORGC7_050322A** SeqNo: **491699**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	494.4	50	500	0	98.9%	80	120	0			
N-Tricosane	55.9	0.10	50.0	0	112%	28	107	0			S

Sample ID **LCSD-13196** Batch ID: **13196** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **3/22/05 7:39:49 PM** Prep Date **3/21/05**
Client ID: Run ID: **ORGC7_050322A** SeqNo: **491700**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	506.7	50	500	0	101%	80	120	494	2.45%	15	
N-Tricosane	58.7	0.10	50.0	0	117%	28	107	55.9	4.91%	15	S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

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Chain of Custody

LABORATORY NUMBER: 0503386

Attention: Christine Manhart
Results & Invoice to: LACO Associates
Address: 21 W. 4th St., Eureka, CA 95501
Phone: (707) 443-5054
Copies of Report to: HPI; Jim Seiler
Sampler (Sign & Print): BWN

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 5282.01
Project Name: HPI/PFP CC Shell
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1	ANALYSIS: DISS Cr - FF	ANALYSIS: TPHd w/SGC	CONTAINER	PRESERVATIVE
								9	b
								2	-
								7	-
	5282-MW1-W	3/15/05		GW	3	1	1		
	5282-MW5-W				3	1	1		
	5282-OW3-W				3	1	1		
	5282-OW4-W				3	1	1		
	5282-OW5-W				3	1	1		
	5282-TB-W				1				

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Cold, in tact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
[signature]	3/16/05 0847	R. Thompson	3/16/05 0847

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

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707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER:

Attention: [illegible]
Results & Invoice to: [illegible]
Address: [illegible]
Phone: [illegible]
Copies of Report to: [illegible]
Sampler (Sign & Print): [illegible]

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☒ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☒ Verbal ☐ By:__/__/__
Final Report: FAX ☐ Verbal ☐ By:__/__/__

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 5252.01
Project Name: [illegible]
Purchase Order Number:

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE	CONTAINER	ANALYSIS	SAMPLE CONDITION/SPECIAL INSTRUCTIONS
	5252-B21-S5	[illegible]		S	—	11	TOC	
	B21-S4							
	B22-S5							
	B21-S4							

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
[illegible]	2/16/05		

SAMPLE DISPOSAL
☒ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

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May 24, 2005

RECEIVED
LACO ASSOCIATES
MAY 27 2005
BY: JG

LACO Associates
P.O. Box 1023
Eureka, CA 95502

Order No.: 0505280
Invoice No.: 50319
PO No.: TASK 3023
ELAP No. 1247-Expires July 2006

Attn: Accounts Payable

RE: 5282.01, HPI/PFP C. C. Shell

DRG
CSH

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	5282-MW1-W
01D	5282-MW1-W
01E	5282-MW1-W ((Dissolved)
02A	5282-MW2-W
02D	5282-MW2-W
02E	5282-MW2-W (Dissolved)
03A	5282-MW4-W
03D	5282-MW4-W
03E	5282-MW4-W (Dissolved)
04A	5282-MW5-W
04D	5282-MW5-W
04E	5282-MW5-W (Dissolved)
05A	5282-MW6-W
05D	5282-MW6-W
05E	5282-MW6-W (Dissolved)
06A	5282-MW7-W
06D	5282-MW7-W
06E	5282-MW7-W (Dissolved)
07A	5282-MW8-W
07D	5282-MW8-W
07E	5282-MW8-W (Dissolved)
08A	5282-OW3-W
08D	5282-OW3-W
08E	5282-OW3-W (Dissolved)
09A	5282-OW4-W
09D	5282-OW4-W
09E	5282-OW4-W (Dissolved)
10A	5282-OW5-W
10D	5282-OW5-W
10E	5282-OW5-W (Dissolved)
11A	5282-QCTB-W

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)	QA Unit	Jesse G. Chaney, Jr. Laboratory Director

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North Coast Laboratories, Ltd. **Date:** *24-May-05*

CLIENT: LACO Associates
Project: 5282.01, HPI/PFP C. C. Shell
Lab Order: 0505280

CASE NARRATIVE

All samples submitted for a silica gel cleanup were initially analyzed for diesel. The samples showing no detectable levels of the analyte were not subjected to the cleanup procedure.

TPH as Diesel with Silica Gel Cleanup:
Samples 5282-MW8-W and 5282-OW3-W contain some material lighter than diesel. However, some of this material extends into the diesel range of molecular weights. These samples also contain material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil.

Gasoline Components/Additives:
Samples 5282-MW8-W and 5282-OW3-W appear to be similar to gasoline but certain peak ratios are not that of a fresh gasoline standard. The reported results represent the amount of material in the gasoline range.

Some reporting limits were raised for samples 5282-MW8-W and 5282-OW3-W due to matrix interference.

TPH as Diesel:
There was an interferent present in the method blank that was above the reporting limit for diesel. The interferent was not present in the samples; therefore, the data were accepted.

The laboratory control sample (LCS) recovery was above the upper acceptance limit for diesel. This recovery indicates that the sample results may be erroneously high. There were no detectable levels of the analyte in the samples; therefore, the data were accepted.

The relative percent difference (RPD) for the laboratory control samples was above the upper acceptance limit for the surrogate. This indicates that the results could be variable. Since there were no detectable levels of the analyte in the samples, the data were accepted.

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-MW1-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-01A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	ND	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/20/05
Toluene	ND	0.50	µg/L	1.0		5/20/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/20/05
m,p-Xylene	0.60	0.50	µg/L	1.0		5/20/05
o-Xylene	0.84	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	88.7	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-MW1-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-01D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/17/05	5/20/05
Surrogate: N-Tricosane	91.6	70-130	% Rec	1.0	5/17/05	5/20/05

Client Sample ID: 5282-MW1-W ((Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-01E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	5/13/05	5/16/05

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-MW2-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-02A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	4.4	1.0	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	ND	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/20/05
Toluene	ND	0.50	µg/L	1.0		5/20/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/20/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/20/05
o-Xylene	ND	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	91.7	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-MW2-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-02D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/17/05	5/20/05
Surrogate: N-Tricosane	82.4	70-130	% Rec	1.0	5/17/05	5/20/05

Client Sample ID: 5282-MW2-W (Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-02E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	21	10	µg/L	1.0	5/12/05	5/16/05

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Printed on Recycled Paper

Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-MW4-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-03A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	ND	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/20/05
Toluene	ND	0.50	µg/L	1.0		5/20/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/20/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/20/05
o-Xylene	ND	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	90.4	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-MW4-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-03D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/17/05	5/20/05
Surrogate: N-Tricosane	88.7	70-130	% Rec	1.0	5/17/05	5/20/05

Client Sample ID: 5282-MW4-W (Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-03E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	5/12/05	5/16/05

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-MW5-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-04A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	ND	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/20/05
Toluene	ND	0.50	µg/L	1.0		5/20/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/20/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/20/05
o-Xylene	ND	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	90.1	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-MW5-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-04D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/17/05	5/20/05
Surrogate: N-Tricosane	88.3	70-130	% Rec	1.0	5/17/05	5/20/05

Client Sample ID: 5282-MW5-W (Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-04E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	5/12/05	5/16/05

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-MW6-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-05A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	ND	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/20/05
Toluene	ND	0.50	µg/L	1.0		5/20/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/20/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/20/05
o-Xylene	ND	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	93.3	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-MW6-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-05D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/22/05	5/23/05
Surrogate: N-Tricosane	91.4	70-130	% Rec	1.0	5/22/05	5/23/05

Client Sample ID: 5282-MW6-W (Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-05E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	5/12/05	5/16/05

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-MW7-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-06A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	5.2	1.0	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	ND	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/20/05
Toluene	ND	0.50	µg/L	1.0		5/20/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/20/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/20/05
o-Xylene	ND	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	90.1	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-MW7-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-06D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/22/05	5/23/05
Surrogate: N-Tricosane	94.9	70-130	% Rec	1.0	5/22/05	5/23/05

Client Sample ID: 5282-MW7-W (Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-06E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	5/12/05	5/16/05

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-MW8-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-07A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	3.3	1.0	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	40	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	9.3	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	1.7	1.0	µg/L	1.0		5/20/05
Toluene	ND	0.50	µg/L	1.0		5/20/05
Ethylbenzene	32	0.50	µg/L	1.0		5/20/05
m,p-Xylene	12	0.50	µg/L	1.0		5/20/05
o-Xylene	1.7	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	99.3	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	2,200	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-MW8-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-07D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	220	50	µg/L	1.0	5/22/05	5/23/05
Surrogate: N-Tricosane	91.8	70-130	% Rec	1.0	5/22/05	5/23/05

Client Sample ID: 5282-MW8-W (Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-07E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	5/12/05	5/16/05

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-OW3-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-08A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	10	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	25	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	5.3	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	3.0	1.0	µg/L	1.0		5/20/05
Toluene	9.8	0.50	µg/L	1.0		5/20/05
Ethylbenzene	16	0.50	µg/L	1.0		5/20/05
m,p-Xylene	130	0.50	µg/L	1.0		5/20/05
o-Xylene	82	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	98.5	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	3,300	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-OW3-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-08D **Matrix:** Groundwater

Test Name: TPH as Diesel with Silica Gel Cleanup **Reference:** EPA 3510/3630/GCFID(LUFT)/8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	130	50	µg/L	1.0	5/22/05	5/23/05
Surrogate: N-Tricosane	102	70-130	% Rec	1.0	5/22/05	5/23/05

Client Sample ID: 5282-OW3-W (Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-08E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	5/12/05	5/16/05

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-OW4-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-09A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	ND	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/20/05
Toluene	ND	0.50	µg/L	1.0		5/20/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/20/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/20/05
o-Xylene	ND	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	89.8	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-OW4-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-09D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/17/05	5/20/05
Surrogate: N-Tricosane	90.1	70-130	% Rec	1.0	5/17/05	5/20/05

Client Sample ID: 5282-OW4-W (Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-09E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	5/12/05	5/16/05

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-OW5-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-10A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/20/05
Benzene	ND	0.50	µg/L	1.0		5/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/20/05
Toluene	ND	0.50	µg/L	1.0		5/20/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/20/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/20/05
o-Xylene	ND	0.50	µg/L	1.0		5/20/05
Surrogate: 1,4-Dichlorobenzene-d4	90.5	80.8-139	% Rec	1.0		5/20/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/20/05

Client Sample ID: 5282-OW5-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-10D **Matrix:** Groundwater

Test Name: TPH as Diesel **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/17/05	5/20/05
Surrogate: N-Tricosane	105	70-130	% Rec	1.0	5/17/05	5/20/05

Client Sample ID: 5282-OW5-W (Dissolved) **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-10E **Matrix:** Groundwater

Test Name: ICAP Metals with Acid Digestion **Reference:** EPA 200.7

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Chromium	ND	10	µg/L	1.0	5/12/05	5/16/05

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Date: 24-May-05
WorkOrder: 0505280

ANALYTICAL REPORT

Client Sample ID: 5282-QCTB-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505280-11A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/19/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/19/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/19/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/19/05
Benzene	ND	0.50	µg/L	1.0		5/19/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/19/05
Toluene	ND	0.50	µg/L	1.0		5/19/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/19/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/19/05
o-Xylene	ND	0.50	µg/L	1.0		5/19/05
Surrogate: 1,4-Dichlorobenzene-d4	89.3	80.8-139	% Rec	1.0		5/19/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/19/05

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Date: 24-May-05

CLIENT: LACO Associates
Work Order: 0505280
Project: 5282.01, HPI/PFP C. C. Shell

QC SUMMARY REPORT

Method Blank

Sample ID **MB 051905** Batch ID: **R34976** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **5/19/05 9:12:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050519A** SeqNo: **506359**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0									
Tert-butyl alcohol (TBA)	ND	10									
Di-isopropyl ether (DIPE)	ND	1.0									
Ethyl tert-butyl ether (ETBE)	ND	1.0									
Benzene	ND	0.50									
Tert-amyl methyl ether (TAME)	ND	1.0									
Toluene	0.1243	0.50									J
Ethylbenzene	0.08562	0.50									J
m,p-Xylene	ND	0.50									
o-Xylene	0.1464	0.50									J
1,4-Dichlorobenzene-d4	0.900	0.10	1.00	0	90.0%	81	139	0			

Sample ID **MB 051905** Batch ID: **R34978** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **5/19/05 9:12:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050519B** SeqNo: **506387**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	ND	50									

Sample ID **MB-13497P** Batch ID: **13497** Test Code: **ICPX** Units: **µg/L** Analysis Date **5/16/05 1:19:00 PM** Prep Date **5/13/05**
Client ID: Run ID: **INICP1_050516A** SeqNo: **505114**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: LACO Associates
Work Order: 0505280
Project: 5282.01, HPI/PFP C. C. Shell

QC SUMMARY REPORT

Method Blank

Sample ID **MB-13491P** Batch ID: **13491** Test Code: **ICPX** Units: **µg/L** Analysis Date **5/16/05 3:52:00 PM** Prep Date **5/12/05**
Client ID: Run ID: **INICP1_050516A** SeqNo: **505134**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	10									

Sample ID **MB-13544** Batch ID: **13544** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **5/23/05 6:55:50 PM** Prep Date **5/22/05**
Client ID: Run ID: **ORGC5_050523A** SeqNo: **506730**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	31.67	50									J
N-Tricosane	49.2	0.10	50.0	0	98.3%	70	130	0			

Sample ID **MB-13519** Batch ID: **13519** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **5/20/05 10:56:14 AM** Prep Date **5/17/05**
Client ID: Run ID: **ORGC7_050520A** SeqNo: **506491**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	63.59	50									
N-Tricosane	44.5	0.10	50.0	0	89.0%	70	130	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 24-May-05

CLIENT: LACO Associates
Work Order: 0505280
Project: 5282.01, HPI/PFP C. C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05338** Batch ID: **R34976** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **5/19/05 5:48:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_050519A** SeqNo: **506355**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18.10	1.0	20.0	0	90.5%	80	120	0			
Tert-butyl alcohol (TBA)	362.8	10	400	0	90.7%	25	162	0			
Di-isopropyl ether (DIPE)	18.36	1.0	20.0	0	91.8%	80	120	0			
Ethyl tert-butyl ether (ETBE)	18.40	1.0	20.0	0	92.0%	77	120	0			
Benzene	19.16	0.50	20.0	0	95.8%	78	117	0			
Tert-amyl methyl ether (TAME)	17.63	1.0	20.0	0	88.1%	64	136	0			
Toluene	18.72	0.50	20.0	0	93.6%	80	120	0			
Ethylbenzene	18.52	0.50	20.0	0	92.6%	80	120	0			
m,p-Xylene	37.26	0.50	40.0	0	93.1%	80	120	0			
o-Xylene	18.11	0.50	20.0	0	90.5%	80	120	0			
1,4-Dichlorobenzene-d4	1.03	0.10	1.00	0	103%	81	139	0			

Sample ID **LCSD-05338** Batch ID: **R34976** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **5/19/05 6:13:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_050519A** SeqNo: **506357**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18.11	1.0	20.0	0	90.5%	80	120	18.1	0.0310%	20	
Tert-butyl alcohol (TBA)	371.1	10	400	0	92.8%	25	162	363	2.27%	20	
Di-isopropyl ether (DIPE)	18.40	1.0	20.0	0	92.0%	80	120	18.4	0.227%	20	
Ethyl tert-butyl ether (ETBE)	18.37	1.0	20.0	0	91.8%	77	120	18.4	0.163%	20	
Benzene	18.94	0.50	20.0	0	94.7%	78	117	19.2	1.19%	20	
Tert-amyl methyl ether (TAME)	17.70	1.0	20.0	0	88.5%	64	136	17.6	0.376%	20	
Toluene	18.54	0.50	20.0	0	92.7%	80	120	18.7	0.966%	20	
Ethylbenzene	18.32	0.50	20.0	0	91.6%	80	120	18.5	1.10%	20	
m,p-Xylene	36.49	0.50	40.0	0	91.2%	80	120	37.3	2.08%	20	
o-Xylene	17.78	0.50	20.0	0	88.9%	80	120	18.1	1.83%	20	
1,4-Dichlorobenzene-d4	1.03	0.10	1.00	0	103%	81	139	1.03	0.00749%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: LACO Associates
Work Order: 0505280
Project: 5282.01, HPI/PFP C. C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05339** Batch ID: **R34978** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **5/19/05 7:30:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050519B** SeqNo: **506384**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,058	50	1,000	0	106%	80	120	0			

Sample ID **LCSD-05339** Batch ID: **R34978** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **5/19/05 7:55:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050519B** SeqNo: **506385**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,033	50	1,000	0	103%	80	120	1,060	2.48%	20	

Sample ID **LCS-13497P** Batch ID: **13497** Test Code: **ICPX** Units: **µg/L** Analysis Date **5/16/05 1:23:00 PM** Prep Date **5/13/05**
Client ID: Run ID: **INICP1_050516A** SeqNo: **505115**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	506.0	10	500	0	101%	85	115	0			

Sample ID **LCS-13491P** Batch ID: **13491** Test Code: **ICPX** Units: **µg/L** Analysis Date **5/16/05 3:56:00 PM** Prep Date **5/12/05**
Client ID: Run ID: **INICP1_050516A** SeqNo: **505135**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	486.1	10	500	0	97.2%	85	115	0			

Sample ID **LCS-13544** Batch ID: **13544** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **5/23/05 5:20:09 PM** Prep Date **5/22/05**
Client ID: Run ID: **ORGC5_050523A** SeqNo: **506729**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	387.4	50	500	0	77.5%	40	107	0			
N-Tricosane	50.3	0.10	50.0	0	101%	70	130	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: LACO Associates
Work Order: 0505280
Project: 5282.01, HPI/PFP C. C. Shell

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-13519** Batch ID: **13519** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **5/20/05 9:15:21 AM** Prep Date **5/17/05**
Client ID: Run ID: **ORGC7_050520A** SeqNo: **506488**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	615.1	50	500	0	123%	67	120	0			BS
N-Tricosane	54.5	0.10	50.0	0	109%	70	130	0			

Sample ID **LCSD-13519** Batch ID: **13519** Test Code: **TPHDIW** Units: **µg/L** Analysis Date **5/20/05 9:35:28 AM** Prep Date **5/17/05**
Client ID: Run ID: **ORGC7_050520A** SeqNo: **506489**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	587.1	50	500	0	117%	67	120	615	4.65%	15	B
N-Tricosane	42.7	0.10	50.0	0	85.4%	70	130	54.5	24.2%	15	R

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

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Chain of Custody

0505280

LABORATORY NUMBER:

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501

Phone: (707) 443-5054
Copies of Report to: LACO; Christine Manhart

Sampler (Sign & Print): SJD

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 5282.01
Project Name: HPI/PFP C.C. Shell
Purchase Order Number: task 3023

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 list 1 (CONTAINER 9, PRESERVATIVE b)	ANALYSIS: TPHd w/SGC (CONTAINER 7, PRESERVATIVE ------)	ANALYSIS: Diss. Cr (CONTAINER 2, PRESERVATIVE ------)	SAMPLE CONDITION/SPECIAL INSTRUCTIONS
	5282-MW1-W	5-12-05	AM	GW	3	1	1	GEOTRACKER
	5282-MW2-W				3	1	1	MW1 - DISS. Cr = FF
	5282-MW4-W				3	1	1	
	5282-MW5-W				3	1	1	
	5282-MW6-W				3	1	1	
	5282-MW7-W				3	1	1	
	5282-MW8-W				3	1	1	
	5282-OW3-W				3	1	1	
	5282-OW4-W				3	1	1	
	5282-OW5-W		PM		3	1	1	Cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	5-12-05 4:20 pm	K. Thompson	5/12/05 1620

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

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707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 0505280

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501
Phone: (707) 443-5054
Copies of Report to: LACO; Christine Manhart
Sampler (Sign & Print): SJD

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 5282.01
Project Name: HPI/PFP C.C. Shell
Purchase Order Number: task 3023

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS	CONTAINER	PRESERVATIVE
	5282-QCTB-W	5-12-05	Pm	GW	8260 list1	9	b
					1		

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	5-12-05 4:20 pm		5/12/05 1620

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

RECEIVED
LACO ASSOCIATES
MAY 27 2005
BY: JG

NORTH COAST
LABORATORIES LTD.

May 24, 2005

DRG
CSM
FRB

LACO Associates
P.O. Box 1023
Eureka, CA 95502

Order No.: 0505281
Invoice No.: 50317
PO No.: TASK 3023
ELAP No. 1247-Expires July 2006

Attn: Accounts Payable

RE: 3503.03, CRESCENT CITY SHELL

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	3503-MW3-W
01D	3503-MW3-W
02A	3503-DW-W
02D	3503-DW-W
03A	3503-OW1-W
03D	3503-OW1-W
04A	3503-OW2-W
04D	3503-OW2-W
05A	3503-QCTB-W

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s) | QA Unit | Jesse G. Chaney, Jr. Laboratory Director

5680 West End Road • Arcata California 95521-9202 • 707-822-4649 • FAX 707-822-6831

North Coast Laboratories, Ltd. **Date:** *24-May-05*

CLIENT: LACO Associates
Project: 3503.03, CRESCENT CITY SHELL
Lab Order: 0505281

CASE NARRATIVE

All samples submitted for a silica gel cleanup were initially analyzed for diesel/motor oil. The samples showing no detectable levels of the analytes were not subjected to the cleanup procedure.

TPH as Diesel/Motor Oil:
There was an interferent present in the method blank analyzed on 5/18/05 that was above the reporting limit for diesel. The interferent was not present in the samples associated with that method blank; therefore, the data were accepted.

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Date: 24-May-05
WorkOrder: 0505281

ANALYTICAL REPORT

Client Sample ID: 3503-MW3-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505281-01A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/18/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/18/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/18/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/18/05
Benzene	ND	0.50	µg/L	1.0		5/18/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/18/05
Toluene	ND	0.50	µg/L	1.0		5/18/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/18/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/18/05
o-Xylene	ND	0.50	µg/L	1.0		5/18/05
Surrogate: 1,4-Dichlorobenzene-d4	91.5	80.8-139	% Rec	1.0		5/18/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/18/05

Client Sample ID: 3503-MW3-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505281-01D **Matrix:** Groundwater

Test Name: TPH as Diesel/Motor Oil **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/19/05	5/19/05
TPHC Motor Oil	ND	170	µg/L	1.0	5/19/05	5/19/05

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Date: 24-May-05
WorkOrder: 0505281

ANALYTICAL REPORT

Client Sample ID: 3503-DW-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505281-02A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/18/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/18/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/18/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/18/05
Benzene	ND	0.50	µg/L	1.0		5/18/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/18/05
Toluene	ND	0.50	µg/L	1.0		5/18/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/18/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/18/05
o-Xylene	ND	0.50	µg/L	1.0		5/18/05
Surrogate: 1,4-Dichlorobenzene-d4	90.9	80.8-139	% Rec	1.0		5/18/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/18/05

Client Sample ID: 3503-DW-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505281-02D **Matrix:** Groundwater

Test Name: TPH as Diesel/Motor Oil **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/19/05	5/19/05
TPHC Motor Oil	ND	170	µg/L	1.0	5/19/05	5/19/05

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Date: 24-May-05
WorkOrder: 0505281

ANALYTICAL REPORT

Client Sample ID: 3503-OW1-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505281-03A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/18/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/18/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/18/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/18/05
Benzene	ND	0.50	µg/L	1.0		5/18/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/18/05
Toluene	ND	0.50	µg/L	1.0		5/18/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/18/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/18/05
o-Xylene	ND	0.50	µg/L	1.0		5/18/05
Surrogate: 1,4-Dichlorobenzene-d4	90.7	80.8-139	% Rec	1.0		5/18/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/18/05

Client Sample ID: 3503-OW1-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505281-03D **Matrix:** Groundwater

Test Name: TPH as Diesel/Motor Oil **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/15/05	5/18/05
TPHC Motor Oil	ND	170	µg/L	1.0	5/15/05	5/18/05

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Date: 24-May-05
WorkOrder: 0505281

ANALYTICAL REPORT

Client Sample ID: 3503-OW2-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505281-04A **Matrix:** Groundwater

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/18/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/18/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/18/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/18/05
Benzene	ND	0.50	µg/L	1.0		5/18/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/18/05
Toluene	ND	0.50	µg/L	1.0		5/18/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/18/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/18/05
o-Xylene	ND	0.50	µg/L	1.0		5/18/05
Surrogate: 1,4-Dichlorobenzene-d4	92.4	80.8-139	% Rec	1.0		5/18/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/18/05

Client Sample ID: 3503-OW2-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505281-04D **Matrix:** Groundwater

Test Name: TPH as Diesel/Motor Oil **Reference:** EPA 3510/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	5/15/05	5/18/05
TPHC Motor Oil	ND	170	µg/L	1.0	5/15/05	5/18/05

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Date: 24-May-05
WorkOrder: 0505281

ANALYTICAL REPORT

Client Sample ID: 3503-QCTB-W **Received:** 5/12/05 **Collected:** 5/12/05 0:00
Lab ID: 0505281-05A **Matrix:** Trip Blank

Test Name: Gasoline Components/Additives **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		5/18/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		5/18/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		5/18/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		5/18/05
Benzene	ND	0.50	µg/L	1.0		5/18/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		5/18/05
Toluene	ND	0.50	µg/L	1.0		5/18/05
Ethylbenzene	ND	0.50	µg/L	1.0		5/18/05
m,p-Xylene	ND	0.50	µg/L	1.0		5/18/05
o-Xylene	ND	0.50	µg/L	1.0		5/18/05
Surrogate: 1,4-Dichlorobenzene-d4	90.4	80.8-139	% Rec	1.0		5/18/05

Test Name: TPH as Gasoline **Reference:** LUFT/EPA 8260B Modified

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	ND	50	µg/L	1.0		5/18/05

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North Coast Laboratories, Ltd.

Date: 24-May-05

CLIENT: LACO Associates
Work Order: 0505281
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Method Blank

Sample ID **MB-5/18/05** Batch ID: **R34972** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **5/18/05 6:36:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050518C** SeqNo: **506283**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0									
Tert-butyl alcohol (TBA)	ND	10									
Di-isopropyl ether (DIPE)	ND	1.0									
Ethyl tert-butyl ether (ETBE)	ND	1.0									
Benzene	ND	0.50									
Tert-amyl methyl ether (TAME)	ND	1.0									
Toluene	0.1072	0.50									J
Ethylbenzene	0.08222	0.50									J
m,p-Xylene	ND	0.50									
o-Xylene	0.1221	0.50									J
1,4-Dichlorobenzene-d4	0.900	0.10	1.00	0	90.0%	81	139	0			

Sample ID **MB-5/18/05** Batch ID: **R34959** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **5/18/05 6:36:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050518A** SeqNo: **506099**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	ND	50									

Sample ID **MB-13504** Batch ID: **13504** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **5/18/05 2:47:41 PM** Prep Date **5/15/05**
Client ID: Run ID: **ORGC7_050518A** SeqNo: **506252**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	50.44	50									
TPHC Motor Oil	85.04	170									J

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: LACO Associates
Work Order: 0505281
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Method Blank

Sample ID **MB-13530** Batch ID: **13530** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **5/19/05 7:57:05 PM** Prep Date **5/19/05**

Client ID: Run ID: **ORGC7_050519A** SeqNo: **506456**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	26.69	50									J
TPHC Motor Oil	78.20	170									J

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 24-May-05

CLIENT: LACO Associates
Work Order: 0505281
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05331** Batch ID: **R34972** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **5/18/05 3:12:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_050518C** SeqNo: **506280**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.82	1.0	20.0	0	99.1%	80	120	0			
Tert-butyl alcohol (TBA)	384.5	10	400	0	96.1%	25	162	0			
Di-isopropyl ether (DIPE)	20.05	1.0	20.0	0	100%	80	120	0			
Ethyl tert-butyl ether (ETBE)	20.14	1.0	20.0	0	101%	77	120	0			
Benzene	20.08	0.50	20.0	0	100%	78	117	0			
Tert-amyl methyl ether (TAME)	19.77	1.0	20.0	0	98.8%	64	136	0			
Toluene	19.98	0.50	20.0	0	99.9%	80	120	0			
Ethylbenzene	19.73	0.50	20.0	0	98.6%	80	120	0			
m,p-Xylene	39.35	0.50	40.0	0	98.4%	80	120	0			
o-Xylene	19.73	0.50	20.0	0	98.7%	80	120	0			
1,4-Dichlorobenzene-d4	1.03	0.10	1.00	0	103%	81	139	0			

Sample ID **LCSD-05331** Batch ID: **R34972** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **5/18/05 3:37:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_050518C** SeqNo: **506281**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.75	1.0	20.0	0	98.8%	80	120	19.8	0.350%	20	
Tert-butyl alcohol (TBA)	375.7	10	400	0	93.9%	25	162	384	2.33%	20	
Di-isopropyl ether (DIPE)	19.97	1.0	20.0	0	99.8%	80	120	20.0	0.403%	20	
Ethyl tert-butyl ether (ETBE)	19.86	1.0	20.0	0	99.3%	77	120	20.1	1.37%	20	
Benzene	19.96	0.50	20.0	0	99.8%	78	117	20.1	0.615%	20	
Tert-amyl methyl ether (TAME)	19.73	1.0	20.0	0	98.7%	64	136	19.8	0.190%	20	
Toluene	19.86	0.50	20.0	0	99.3%	80	120	20.0	0.603%	20	
Ethylbenzene	19.61	0.50	20.0	0	98.0%	80	120	19.7	0.610%	20	
m,p-Xylene	38.66	0.50	40.0	0	96.6%	80	120	39.4	1.76%	20	
o-Xylene	19.63	0.50	20.0	0	98.1%	80	120	19.7	0.529%	20	
1,4-Dichlorobenzene-d4	1.03	0.10	1.00	0	103%	81	139	1.03	0.541%	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: LACO Associates
Work Order: 0505281
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05332** Batch ID: **R34959** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **5/18/05 4:54:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050518A** SeqNo: **506095**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,107	50	1,000	0	111%	80	120	0			

Sample ID **LCSD-05332** Batch ID: **R34959** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **5/18/05 5:19:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_050518A** SeqNo: **506096**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,085	50	1,000	0	109%	80	120	1,110	2.01%	20	

Sample ID **LCS-13504** Batch ID: **13504** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **5/18/05 1:07:20 PM** Prep Date **5/15/05**
Client ID: Run ID: **ORGC7_050518A** SeqNo: **506249**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	480.0	50	500	0	96.0%	72	124	0			B
TPHC Motor Oil	998.6	170	1,000	0	99.9%	71	139	0			

Sample ID **LCSD-13504** Batch ID: **13504** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **5/18/05 1:27:25 PM** Prep Date **5/15/05**
Client ID: Run ID: **ORGC7_050518A** SeqNo: **506250**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	440.4	50	500	0	88.1%	72	124	480	8.60%	15	B
TPHC Motor Oil	1,001	170	1,000	0	100%	71	139	999	0.197%	15	

Sample ID **LCS-13530** Batch ID: **13530** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **5/19/05 6:16:14 PM** Prep Date **5/19/05**
Client ID: Run ID: **ORGC7_050519A** SeqNo: **506453**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	478.3	50	500	0	95.7%	72	124	0			
TPHC Motor Oil	964.1	170	1,000	0	96.4%	71	139	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: LACO Associates
Work Order: 0505281
Project: 3503.03, CRESCENT CITY SHELL

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-13530** Batch ID: **13530** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **5/19/05 6:36:20 PM** Prep Date **5/19/05**

Client ID: Run ID: **ORGC7_050519A** SeqNo: **506454**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	470.6	50	500	0	94.1%	72	124	478	1.62%	15	
TPHC Motor Oil	916.3	170	1,000	0	91.6%	71	139	964	5.08%	15	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

NORTH COAST LABORATORIES LTD.
5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

LABORATORY NUMBER: 0505281

Attention: Accounts Payable
Results & Invoice to: Laco Associates
Address: 21 W. 4th St. Eureka CA 95501
Phone: (707) 443-5054
Copies of Report to: LACO ; CHRISTINE MANHART
Sampler (Sign & Print): SJD

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5–7 Day
☑ STD (2–3 Wk) ☐ Other:
PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐
Preliminary: FAX ☑ Verbal ☐ By:
Final Report: FAX ☐ Verbal ☐ By:

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO_3; b—HCl; c—H_2SO_4; d—$Na_2S_2O_3$; e—NaOH; f—$C_2H_3O_2Cl$; g—other

PROJECT INFORMATION

Project Number: 3503.03
Project Name: CRESCENT CITY SHELL
Purchase Order Number: task 3023

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1	ANALYSIS: TPHd/mo w/SGC	CONTAINER	PRESERVATIVE
	3503-MW3-W	5-12-05	1Am	GW	3	1	9	b
	3503-DW-W				3	1		
	3503-OW1-W				3	1		
	3503-OW2-W				3	1		
	3503-QCTB-W		Pm		1		7	—

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
GEOTRACKER
Cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	5-12-05 4:20 pm	K. Thompson	5/12/05 1620

SAMPLE DISPOSAL
☑ NCL Disposal of Non-Contaminated
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA
SHIPPED VIA: UPS Air-Ex Fed-Ex Bus ~~Hand~~

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Attachment 5

LACO ASSOCIATES
CONSULTING ENGINEERS

21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HP, PFP CC SHELL
Project No.: 5282.01
Task: 413
Date: 3/15/2005
PM: CSM

Tech: BWN
Mobe/Demobe time: .5/.5
Travel time: 2/1.75
Time on site: 1330
Time off site: 1515
Mileage: 180

SYSTEM READINGS

UNIT: C-SPARGER

Master Panel Runtime (Hrs): 9727.32

O_2 Concentrator Runtime (Hrs): 12985

System Clock Time: 1440 @ 1442

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	~~35~~ 33		
2	~~18~~ 37		
3	~~15~~ 39		
4	37		
5	29		
6	24		
7	27		
8	24		
9	34		
10	25		
11			
12			

UNIT:

Master Panel Runtime (Hrs):

O_2 Concentrator Runtime (Hrs):

System Clock Time:

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

ANCILLARY INFORMATION

Power Meter (Kwh): 23125

Max. Humidity (%RH): 65%

Surge Suppression: (ON) / OFF

Max. Temperature (°F): 87.6°F

Ventilation Fan(s): (ON) / OFF

Controller Battery Voltage (volts): N/A

TROUBLESHOOTING

Ozone Detector Fault: N/A YES / NO

Panel GFI Fault: YES / (NO)

Controller Fault: YES / (NO)

Solenoid Malfunction: 1 2 3 4 5 6 7 8 9 10 11 12

Tubing: ✓

16A Breaker Fault: YES / (NO)

Main Circuit Breaker Fault: YES / (NO)

Fasteners/Fittings: ✓

Correct Controller Program: (YES) / NO

Wires: ✓

MAINTENANCE

O_2 Concentrator Filter (YES) / NO

Compressor Filter CHANGE (YES) / NO

Reset Temperature/Humidity (YES) / NO

Check Peroxide Level N/A YES / NO

STATION	RUN TIME				SPARGE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C	HOURS/DAY		
1	14	12	12	228	1s	
2	14	12	12	228	1d	
3	14	12	12	228	4s	
4	14	12	12	228	4d	
5	14	12	12	228	5d	
6	—	2	2	24	3s, 2s	
7	—	2	2	24	2d, 3d	
8	—	2	2	24	6s, 7s	
9	—	2	2	24	6d, 7d	
10	—	2	2	24	8, 9	
11						
12						
13						
TOTAL:	420	420	420	1260		

START TIMES	A	B	C
1	1200	800	1600
2	120	920	1720
3	240	1040	1840
4	400	1200	2000
5	520	1320	2120
6	640	1440	2240

REPAIRS

REBUILT 1207 COMPRESSOR
- SS CYL
- PISTON
- HEAD SEAL
- HEAD RING SEAL
- 4 TOP FLAPPER
- 1 UNDER FLAPPER

ADDED SNUBBER & NEW PRESSURE GAUGE

MODIFICATIONS

CLEANED DUST/DIRT OUT OF SHED
REPAIRED MW #3

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: HPI/PFP C. CITY SHELL
Project No.: 5282.01
Task: 413
Date: 4-11-05
PM: CSM

Tech: SJD
Mobe/Demobe time: .25/.25
Travel time: 1.75
Time on site: 1:25
Time off site: 2:25
Mileage: 76

SYSTEM READINGS

UNIT:				UNIT:			
Master Panel Runtime (Hrs):	10266.23			Master Panel Runtime (Hrs):			
O_2 Concentrator Runtime (Hrs):	13631			O_2 Concentrator Runtime (Hrs):			
System Clock Time:	1243 @ 1341			System Clock Time:			
STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)	STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	28			1			
2	29			2			
3	30			3			
4	28			4			
5	26			5			
6	21			6			
7	24			7			
8	21			8			
9	27			9			
10	22			10			
11				11			
12				12			

ANCILLARY INFORMATION

Power Meter (Kwh):	23766	Max. Temperature (°F):	82.6°
Max. Humidity (%RH):	66%	Ventilation Fan(s):	(ON) / OFF
Surge Suppression:	(ON) / OFF	Controller Battery Voltage (volts):	N/A

TROUBLESHOOTING

Ozone Detector Fault:	N/A YES / NO	16A Breaker Fault:	YES / (NO)
Panel GFI Fault:	YES / (NO)	Main Circuit Breaker Fault:	YES / (NO)
Controller Fault:	YES / (NO)	Fasteners/Fittings:	✓
Solenoid Malfunction:	1 2 3 4 5 6 7 8 9 10 11 12	Correct Controller Program:	(YES) / NO
Tubing:	✓	Wires:	✓

MAINTENANCE

O_2 Concentrator Filter	(YES) / NO	Reset Temperature/Humidity	(YES) / NO
Compressor Filter	(YES) / NO	Check Peroxide Level N/A	YES / NO

TATION	RUN TIME				SPARGE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C	HOURS/DAY		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
TOTAL:						

START TIMES	A	B	C	REPAIRS
1				
2				
3				
4				
5				
6				

MODIFICATIONS

LACO ASSOCIATES
CONSULTING ENGINEERS
21 West Fourth Street, Eureka, CA 95501
TEL 707.443.5054
FAX 707.443.0553

Project Name: CRESCENT CITY SHELL HPI/PFP
Project No.: 5282.01
Task: 4.3
Date: 4/14/2005
PM: CSM

Tech: BWN
Mobe/Demobe time: .25 / .25
Travel time: 1.75 / 1.75
Time on site: 1200
Time off site: 1430
Mileage: 180

SYSTEM READINGS

UNIT: C. SPARGER				UNIT:			
Master Panel Runtime (Hrs):	10321.15			Master Panel Runtime (Hrs):			
O_2 Concentrator Runtime (Hrs):	13701			O_2 Concentrator Runtime (Hrs):			
System Clock Time:	1318 @ 14:20			System Clock Time:			
STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)	STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	28	1S		1			
2	36	1D		2			
3	37	4S		3			
4	42	4D		4			
5	28	5D		5			
6	25	3S, 2S		6			
7	28	3d, 2d		7			
8	22	6s, 7s		8			
9	34	6d, 7d		9			
10	24	8, 9		10			
11				11			
12				12			

ANCILLARY INFORMATION

Power Meter (Kwh):	23834	Max. Temperature (°F):	77.2°F
Max. Humidity (%RH):	61%	Ventilation Fan(s):	(ON) / OFF
Surge Suppression:	(ON) / OFF	Controller Battery Voltage (volts):	

TROUBLESHOOTING

Ozone Detector Fault:	N/A YES / NO	16A Breaker Fault:	YES / (NO)
Panel GFI Fault:	YES / (NO)	Main Circuit Breaker Fault:	YES / (NO)
Controller Fault:	YES / (NO)	Fasteners/Fittings:	✓
Solenoid Malfunction:	1 2 3 4 5 (6) 7 8 9 10 11 12	Correct Controller Program:	REPROGRAM (YES) / NO
Tubing:	✓	Wires:	✓

MAINTENANCE

O_2 Concentrator Filter	YES / (NO)	Reset Temperature/Humidity	(YES) / NO
Compressor Filter	(YES) / NO	Check Peroxide Level	N/A YES / NO

PROGRAM CHANGE

TATION	RUN TIME A	RUN TIME B	RUN TIME C	RUN TIME ~~HOURS~~/DAY (MIN)	SPARGE POINT	WELL BOX OZONE CONC. (ppm)
1	14	13	13	240	1S	✓
2	14	13	13	240	1D	✓
3	14	13	13	240	4S	✓
4	14	13	13	240	4D	✓
5	14	13	13	240	5D	✓
6		1	1	12	3s, 2s	✓
7		1	1	12	3d, 2d	✓
8		1	1	12	6s, 7s	✓
9		1	1	12	6D, 7D	✓
10		1	1	12	8, 9	✓
11						
12						
13						
TOTAL:						

START TIMES	A	B	C
1	1200 AM	800 AM	400
2	120	920	520
3	240	1040	640
4	400	1200 PM	800
5	520	120	920
6	640	240	1040

REPAIRS

FIXED LEAK AT BASE OF AIR SCRUBBER
REPLACE INTAKE FILTER / AND ATTACHING & STEM REDUCER
R&R SOLENOID 6 (INSPECT & CLEAN)
R&R COMPRESSOR OUTFLOW TUBING
R&R BACKFLOW VALVE TO SP3S & SP3D
R&R POWER TO PANEL FEED

MODIFICATIONS

Crescent City Shell Program for 10-Well C-Saprge Systems PROGRAM CHANGE 4/14/2005

Unit 2

Station #	Well #	Run Time (A)	Run Time (B)	Run Time (C)	
1	1S	14	13	13	240
2	1D	14	13	13	240
3	4S	14	13	13	240
4	4D	14	13	13	240
5	5D	14	13	13	240
6	3S, 2S		1	1	12
7	3D, 2D		1	1	12
8	6S, 7S		1	1	12
9	6D, 7D		1	1	12
10	8, 9		1	1	12
		420	420	420	1260

Start Times	A	B	C
1	12:00 AM	8:00 AM	4:00 PM
2	1:20 AM	9:20 AM	5:20 PM
3	2:40 AM	10:40 AM	6:40 PM
4	4:00 AM	12:00 PM	8:00 PM
5	5:20 AM	1:20 PM	9:20 PM
6	6:40 AM	2:40 PM	10:40 PM

18 cycles per day (each program is repeated 6 times)

Unit 2

Run time =	70 min per cycle	21 hr per day
Rest time =	10 min per cycle	3 hr per day

Turn off the ozone generator and the O_2 concentrator after making the programming changes.

LACO ASSOCIATES
CONSULTING ENGINEERS
21 We[illegible]fourth Street, Eureka, CA 95501
TEL [illegible]43.5054
FAX 707.443.0553

Project Name: CRESCENT CITY SHELL HPI / AFP
Project No.: 5282.01
Task: 413
Date: 5/17/2005
PM: CSM

Tech: BNN
Mobe/Demobe time: 1.25 / .5
Travel time: 1.75 / 1.75
Time on site: 1415
Time off site: 1615
Mileage: 180

SYSTEM READINGS

UNIT: C-SPARGER #1

Master Panel Runtime (Hrs): 10864.26

O_2 Concentrator Runtime (Hrs): NO CHANGE

System Clock Time: 1500 @ 1500

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1	34	1S	
2	38	1D	
3	42	4S	
4	43	4D	
5	29	5D	
6	25	3S, 2S	
7	28	3D, 2D	
8	24	6S, 7S	
9	37	6D, 7D	
10	27	8, 9	
11			
12			

UNIT:

Master Panel Runtime (Hrs):

O_2 Concentrator Runtime (Hrs):

System Clock Time:

STATION	MANIFOLD PRESSURE (psi)	SPARGE POINT	WELL HEAD PRESSURE (psi)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

ANCILLARY INFORMATION

Power Meter (Kwh): 24187

Max. Humidity (%RH): HI

Surge Suppression: (ON) / OFF

Max. Temperature (°F): 78.7 °F

Ventilation Fan(s): (ON) / OFF

Controller Battery Voltage (volts): N/A

TROUBLESHOOTING

Ozone Detector Fault: N/A YES / NO

Panel GFI Fault: YES / (NO)

Controller Fault: YES / (NO)

Solenoid Malfunction: 1 2 3 4 5 6 7 8 9 10 11 12

Tubing: ✓

16A Breaker Fault: YES / (NO)

Main Circuit Breaker Fault: YES / (NO)

Fasteners/Fittings: ✓

Correct Controller Program: (YES) / NO

Wires: ✓

MAINTENANCE

O_2 Concentrator Filter YES / (NO)

Compressor Filter (YES) / NO

Reset Temperature/Humidity (YES) / NO

Check Peroxide Level N/A YES / NO

TATION	RUN TIME			MIN ~~HOURS~~/DAY	SPARGE POINT	WELL BOX OZONE CONC. (ppm)
	A	B	C			
1	14	13	13	240	1S	
2	14	13	13	240	1D	
3	14	13	13	240	4S	
4	14	13	13	240	4D	
5	14	13	13	240	5D	
6	0	1	1	12	3S, 2S	
7	0	1	1	12	3D, 2D	
8	0	1	1	12	6S, 7S	
9	0	1	1	12	6D, 7D	
10	0	1	1	12	8, 9	
11						
12						
13						
TOTAL:	420	420	420	NOTE O_2/O_3 OFF		

START TIMES	A	B	C	REPAIRS
1	1200	800	400	INSTALLED REBUILT COMPRESSOR
2	120	920	520	
3	240	1040	640	
4	400	1200	800	
5	520	120	920	
6	640	240	1040	

MODIFICATIONS