LACO ASSOCIATES
ENGINEERS · GEOLOGISTS · ENVIRONMENTAL CONSULTANTS

LEONARD M. OSBORNE · CE 38573
DAVID R. GERVAN · CE 57282
DAVID N. LINDBERG · PG 5581/CEG 1895
FRANK R. BICKNER · PG 7428
RONALD C. CHANEY, Ph.D · CE 29027/GE 00934

May 10, 2006

4629.05

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

Attention: Mr. Cody Walker

Subject: Groundwater Monitoring Report, First Biannual 2006
Former Shell Bulk Plant - AST Area, 400 Eighth Street, Fortuna, California
CRWQCB Case No. 1THU116, USTCF Claim No. 16125

Dear Mr. Walker:

LACO ASSOCIATES (LACO) presents the first biannual report of groundwater monitoring for 2006. This report has been prepared on behalf of W & S Enviro.

The following elements are included:

- Summary of work performed
- Tabular summary of analytical data
- Tabular summary of hydraulic head
- Graphs of total petroleum hydrocarbons as gasoline (TPHg) and benzene concentrations
- Decay rates for TPHg and benzene
- Hydraulic head and gradient figures
- Statement of conclusions and future work

Please call (707) 443-5054 if you have any questions or concerns.

Sincerely,
LACO ASSOCIATES

Amy M. Thomson
Staff Geologist

Christopher J. Watt
P.G. 7586, Exp. 03/31/08

PROFESSIONAL GEOLOGIST
CHRISTOPHER JOHN WATT
No. 7586
Exp.03/31/
STATE OF CALIFORNIA

AMT:jg

cc: Mr. Jim Seiler (electronically sent)
Ms. Carol Campagna, Shell Oil

P:\4000\4629 W&S Bulk Plant\submittals\GW Mon Reports\2006\First Biannual 06\1st bi 2006 GMR.doc

GROUNDWATER MONITORING REPORT, FIRST BIANNUAL 2006

Former Shell Bulk Plant - AST Area, 400 Eighth Street, Fortuna, California

CRWQCB Case No. 1THU116, LACO Project No. 4629.05

INTRODUCTION

Field activities were conducted on October 24, November 17, December 8, 2005, and January 25 and March 28, 2006, in accordance with generally accepted practices at this or similar locations. Please refer below to Tables A through E for the current groundwater monitoring event details and to LACO's *Standard Operating Procedures No. 1*, on file at your office, for details. A location map and site map are included as Figures 1 and 2, respectively. A key to abbreviations is included as Attachment 1, and field sampling data sheets are included as Attachment 2.

SITE CHRONOLOGY

- **1993:** Investigation of petroleum hydrocarbon-impacted soil and groundwater was initiated.
- **1993 through 2003:** The monitoring well network was constructed.
- **August 2001:** 2,200 cubic yards of petroleum hydrocarbon-impacted soil was excavated.

TABLE A: FIELD SAMPLING DETAILS FOR OCTOBER 24, 2005

MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS	SAMPLING SCHEDULE
MW3	3-20	10.96	DHP	ORP, DO	TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	Monthly
MW10	3-18	13.32	NA	NA	NA	DTW only
MW11	2-14	DRY				
MW14	6-15	14.55				
MW17D	22.5-27.5	13.39				
MW18	18.5-21.5	12.49	1/2" Bailer		TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	Monthly
MW31	16.5-18	11.24	DHP	ORP, DO		
MW32	14-15.5	12.38				

TABLE B: FIELD SAMPLING DETAILS FOR NOVEMBER 17, 2005						
MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS	SAMPLING SCHEDULE
MW3	3-20	7.99	CAM Pump	ORP, DO	TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	Monthly
MW10	3-18	8.08	NA	NA	NA	DTW only
MW11	2-14	DRY				
MW14	6-15	14.58				
MW17D	22.5-27.5	11.20				
MW18	18.5-21.5	Unable to access monitoring well				Monthly
MW31	16.5-18	8.59	CAM Pump	ORP, DO	TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	
MW32	14-15.5	9.68				

TABLE C: FIELD SAMPLING DETAILS FOR DECEMBER 8, 2005						
MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS	SAMPLING SCHEDULE
MW3	3-20	5.97	CAM Pump	ORP, DO	TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	Monthly
MW10	3-18	7.02	NA	NA	NA	DTW only
MW11	2-14	13.28				
MW14	6-15	14.51				
MW17D	22.5-27.5	9.67				
MW18	18.5-21.5	Unable to access monitoring well				Monthly
MW31	16.5-18	6.30	CAM Pump	ORP, DO	TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	
MW32	14-15.5	7.14				

TABLE D: FIELD SAMPLING DETAILS FOR JANUARY 25, 2006						
MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS	SAMPLING SCHEDULE
MW3	3-20	4.54	CAM Pump	ORP, DO	TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	Monthly
MW10	3-18	5.96	NA	NA	NA	DTW only
MW11	2-14	7.15				
MW14	6-15	10.13				
MW17D	22.5-27.5	4.97				
MW18	18.5-21.5	Unable to access monitoring well				Monthly
MW31	16.5-18	3.45	CAM Pump	ORP, DO	TPHg, TPHd, BTEX, MTBE, TBA, DIPE, ETBE, TAME	
MW32	14-15.5	4.30				

TABLE E: FIELD SAMPLING DETAILS FOR MARCH 28, 2006						
MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS	SAMPLING SCHEDULE
MW3	3-20	3.98	CAM Pump	ORP, DO	TPHg, TPHd, TPHmo, BTEX, MTBE	Monthly
MW7	6-25	3.86	DHP			Biannualy
MW9	3-18	4.33				
MW10	3-18	5.13			TPHg, MTBE, BTEX	
MW11	2-14	10.38	3/4" Bailer	NA	TPHg, TPHd, TPHmo, BTEX, MTBE	
MW14	6-15	7.15	3/4" Bailer			
MW17S	15.5-18	2.91	3/4" Bailer			
MW17D	22.5-27.5	6.63	1/2" Bailer			
MW18	18.5-21.5	Monitoring Well Inaccessible				Monthly
MW21	10-12	5.32	CAM Pump	ORP, DO	TPHg, TPHd, TPHmo, BTEX, MTBE	Biannualy
MW26	5-10	3.17				
MW31	16.5-18	3.11				Monthly
MW32	14-15.5	3.82				

HYDRAULIC GRADIENT AND HYDROGEOLOGY

The hydrogeology of the site has been characterized as a perched zone with two semi-confined units consisting of silty sands with interbedded silty clays. A cross-sectional hydraulic gradient contour map was generated using hydraulic head elevations measured in monitoring wells MW7, MW17S, MW17D, MW26, MW31, and MW32 on March 28, 2006. These monitoring wells are screened in intervals that collectively intercept groundwater within the perched zone and the two semi-confined zones. The cross-sectional gradient contour map illustrates that groundwater flow, along a path defined by these wells, has a vertical component and a southwest bearing. Figure 3 presents the hydraulic head elevations for March 28, 2006, and the cross section line A-A'. The cross-sectional hydraulic gradient contour map for March 28, 2006, is included as Figure 4.

LABORATORY RESULTS

Laboratory analytical results from sampling performed during the period of October 2005 through March 2006 are summarized in Table F through Table J, included below. Laboratory analytical results are summarized in the attached Table 1, and copies of the current laboratory reports are included as Attachment 3.

TABLE F: Laboratory Analytical Results for October 24, 2005								
MONITORING WELL ID	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)
MW3	1,800	110	460	8.5	2.2	9.4	ND<1.0	all others ND<1.0-10
MW18	330	ND<50	1.4	23	3.6	15.8	ND<1.0	**DIPE=130**, all others = ND<1.0-10
MW31	1,400	84	260	15	3.4	11.6	ND<1.0	all others ND<1.0-10
MW32	1,600	260	530	6.2	1.7	3.92	ND<1.0	**TBA=30**, all others = ND<1.0

TABLE G: Laboratory Analytical Results for November 17, 2005								
MONITORING WELL ID	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)
MW3	1,700	89	400	6.1	1.2	4.1	ND<1.0	ND<1.0-2.0
MW18	Monitoring Well Inaccessible							
MW31	1,100	110	240	3.6	1.1	1.4	ND<1.0	ND<1.0-10
MW32	2,100	110	490	7.9	2.3	3.98	ND<1.0	ND<1.0-10

TABLE H: Laboratory Analytical Results for December 8, 2005								
MONITORING WELL ID	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)
MW3	310	55	76	1.0	ND<0.50	0.7	ND<1.0	ND<1.0-10
MW18	Monitoring Well Inaccessible							
MW31	1,100	140	200	3.0	0.96	1.2	ND<1.0	ND<1.0-10
MW32	2,000	190	450	7.2	2.0	3.56	ND<1.0	ND<1.0-20

TABLE I: Laboratory Analytical Results for January 25, 2006								
MONITORING WELL ID	TPHg (µg/l)	TPHd (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	MTBE (µg/l)	Oxygenates (µg/l)
MW3	1,800	90	400	6.0	1.2	4.1	ND<1.0	ND<1.0-10
MW18	Monitoring Well Inaccessible							
MW31	790	100	140	1.9	0.66	0.92	ND<1.0	ND<1.0-10
MW32	2,000	150	430	7.2	2.0	3.66	ND<1.0	ND<1.0-10

TABLE J: Laboratory Analytical Results for March 28, 2006								
MONITORING WELL ID	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW3	**1,400**	**83**	ND<170	**280**	**8.7**	**1.6**	**4.1**	ND<12
MW7	**150**	ND<50	ND<170	**3.8**	**1.1**	**0.75**	**0.73**	ND<3.0
MW9	**280**	**96**	ND<170	**0.78**	ND <1.0	ND <0.50	ND <0.50	ND<3.0
MW10	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0
MW11	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0
MW14	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0
MW17S	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0
MW17D	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0
MW21	ND<50	**52**	ND<170	**0.89**	ND<0.50	ND<0.50	ND<0.50	ND<3.0
MW26	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0
MW31	**590**	ND<50	ND<170	**86**	**1.5**	**0.69**	**1.0**	ND<1.0
MW32	**1,900**	**100**	ND<170	**380**	**6.5**	**1.9**	**3.6**	ND<1.0

DISCUSSION OF BIANNUAL AND MONTHLY RESULTS

Analytical results reported for monitoring wells sampled during the first biannual monitoring of 2006 (March 2006) and analytical results from monthly monitoring performed in October, November, and December 2005, and January 2006 generally fall within the range of results historically reported for these wells. The North Coast Laboratories' case narratives for sampling results from November 17 and December 8, 2005, and January 25 and March 28, 2006, state that the gasoline values for samples from monitoring wells MW3, MW31, and MW32 include the reported gasoline components in addition to other peaks in the gasoline range (Attachment 3).

DECAY RATES AND MONITORED NATURAL ATTENUATION

Time-series plots of TPHg and benzene concentrations in monitoring wells MW31 and MW32 with exponential trend lines to extrapolate estimated North Coast Regional Water Quality Control Board (NCRWQCB) water quality objective (WQO) achievement dates are included in Charts 1 through 4. Decay rates for TPHg and benzene concentrations were derived using trend line slopes depicted on these charts. Decay rates were also derived using the first order decay

equation with constituent analytical results (Worksheet 1). The first order decay equation used in the derivation of decay rates and WQO achievement dates is presented below.

$$\text{Concentration Final } (C_f) = \text{Concentration Initial } (C_i) * e^{\wedge(\text{-decay constant (-k)*time(t)})}$$

The WQO achievement dates for TPHg and benzene for monitoring wells MW31 and MW32 are included below in Tables K and L, respectively. The attached Table 2 includes "fast" and "slow" degradation rates, based on published xylene half-life data, to compare to observed degradation rates. Half-lives of TPHg are not available due to the complex formulations of TPHg mixtures; however xylenes comprise between 1 and 10 percent of typical gasoline formulations, and are approximately 3 percent of gasoline mixtures by average (ABB Environmental Services, Inc. 1990). LACO created a compilation of decay rates of TPHg, sum of BTEX, ethylbenzene, and xylenes derived from a variety of BTEX-impacted sites, not currently or previously under active remediation, located around Eureka, California (Attachment 4), which suggests that the ratio of TPHg decay rate to total xylenes decay rate is less variable than TPHg to ethylbenzene or TPHg to sum of BTEX decay rate ratios. Xylene "fast" and "slow" half-lives for aqueous biodegradation under anaerobic conditions were obtained from Howard's Handbook of Environmental Degradation Rates (Howard, 1991). The degradation rates of TPHg were derived using the first order decay equation presented above.

A comparison of decay rates for benzene and TPHg is included as Table 2. Tables K and L, below, summarize the results of decay rate analyses with estimated WQO achievement dates for monitoring wells MW31 and MW32, respectively.

Table K: Monitoring Well MW31 Decay Rates and WQO Achievement Dates for TPHg and Benzene		
MW31	Trend line estimates from Charts 1 and 2	Estimates derived from sampling results
TPHg		
DECAY RATE (k in $days^{-1}$)	-0.0021	-0.0028
Year of WQO Achievement (TPHg WQO: 50 µg/L)	2009	2008
Benzene		
DECAY RATE (k in $days^{-1}$)	-0.0021	-0.0024
Year of WQO Achievement (benzene WQO: 1.0 µg/L)	2012	2011

Table L: Monitoring Well MW32 Decay Rates and WQO Achievement Dates for TPHg and Benzene		
MW32	Trend line estimates from Charts 3 and 4	Estimates derived from sampling results
TPHg		
DECAY RATE (k in $days^{-1}$)	-0.00040	-0.00067
Year of WQO Achievement (TPHg WQO: 50 µg/L)	2028	2021
Benzene		
DECAY RATE (k in $days^{-1}$)	-0.00060	0.00053
Year of WQO Achievement (benzene WQO: 1.0 µg/L)	2036	2036

Monitoring Well MW31

The trend line fit to historical groundwater data for TPHg indicates WQO achievement in approximately three years (2009). Using the first order decay equation with laboratory analytical results for TPHg to extrapolate the time to reach the WQO, indicates achievement of WQO in approximately two years (2008).

The trend line fit to historical groundwater data for benzene indicates WQO achievement in approximately six years (2012). Using the first order decay equation with laboratory analytical results for benzene to extrapolate the time to reach the WQO, indicates achievement of WQO in approximately five years (2011).

Monitoring Well MW32

The decay rate analyses of TPHg in monitoring well MW32 indicate that achievement of the WQO will occur within the next 22 years. Using the first order decay equation with laboratory analytical results for TPHg to extrapolate the time to reach the WQO, indicates achievement of WQO in approximately 15 years (2021).

The decay rate analyses of benzene in monitoring well MW32 indicate that achievement of the WQO will occur within the next 30 years. Using the first order decay equation with laboratory analytical results for TPHg to extrapolate the time to reach the WQO, indicates achievement of WQO in approximately 30 years (2036).

CONCLUSIONS

Current decay rate and trend line analyses presented in this report suggest the WQOs for TPHg and benzene will not be met within 20 years. LACO will prepare a feasibility study to address the residual impact of petroleum hydrocarbons for the AST portion of the site, pending coordination with the responsible party.

FUTURE WORK

- Biannual sampling and measuring of the AST-area monitoring wells MW3, MW7, MW9 through MW11, MW14, MW17S, MW17D, MW18, MW21, MW26, MW31, and MW32 is scheduled for September 2006.
- Monthly sampling and measuring of monitoring wells MW3, MW18, MW31, and MW32, and measuring only of monitoring wells MW10, MW11, MW14, and MW17D will continue.

LIMITATIONS

LACO has exercised a standard of care equal to that generated for this industry to ensure that the information contained in this report is current and accurate. LACO disclaims any and all liability for any errors, omissions, or inaccuracies in the information and data presented in this report and/or any consequences arising there from, whether attributable to inadvertence or otherwise. LACO makes no representations or warranties of any kind including, but not limited to, any implied warranties with respect to the accuracy or interpretations of the data furnished. LACO assumes no responsibility of any third party reliance on the data presented, and that data generated for this report represents information gathered at that time and at the locations indicated. It should not be utilized by any third party to represent data for any other time or

location. It is known that site and subsurface environmental conditions can change with time and under anthropologic influences. This report is valid solely for the purpose, site, and project described in this document. Any alteration, unauthorized distribution, or deviation from this description will invalidate this report.

REFERENCES

Howard, Philip H., Handbook of Environmental Degradation Rates, 1991. pg. 111 and pg. 422. CRC Press LLC, Boca Raton, FL.

Nyer, Evan K., In Situ Treatment Technology, 1996. pg. 10. CRC Press, Inc., Boca Raton, FL.

ABB Environmental Services, Inc., 1990.

LIST OF FIGURES, TABLES, CHARTS, WORKSHEETS, AND ATTACHMENTS

Figure 1: Location Map
Figure 2: Site Map
Figure 3: Hydraulic Head Elevations (3/28/2006)
Figure 4: Cross-sectional Hydraulic Gradient Map (3/28/06)

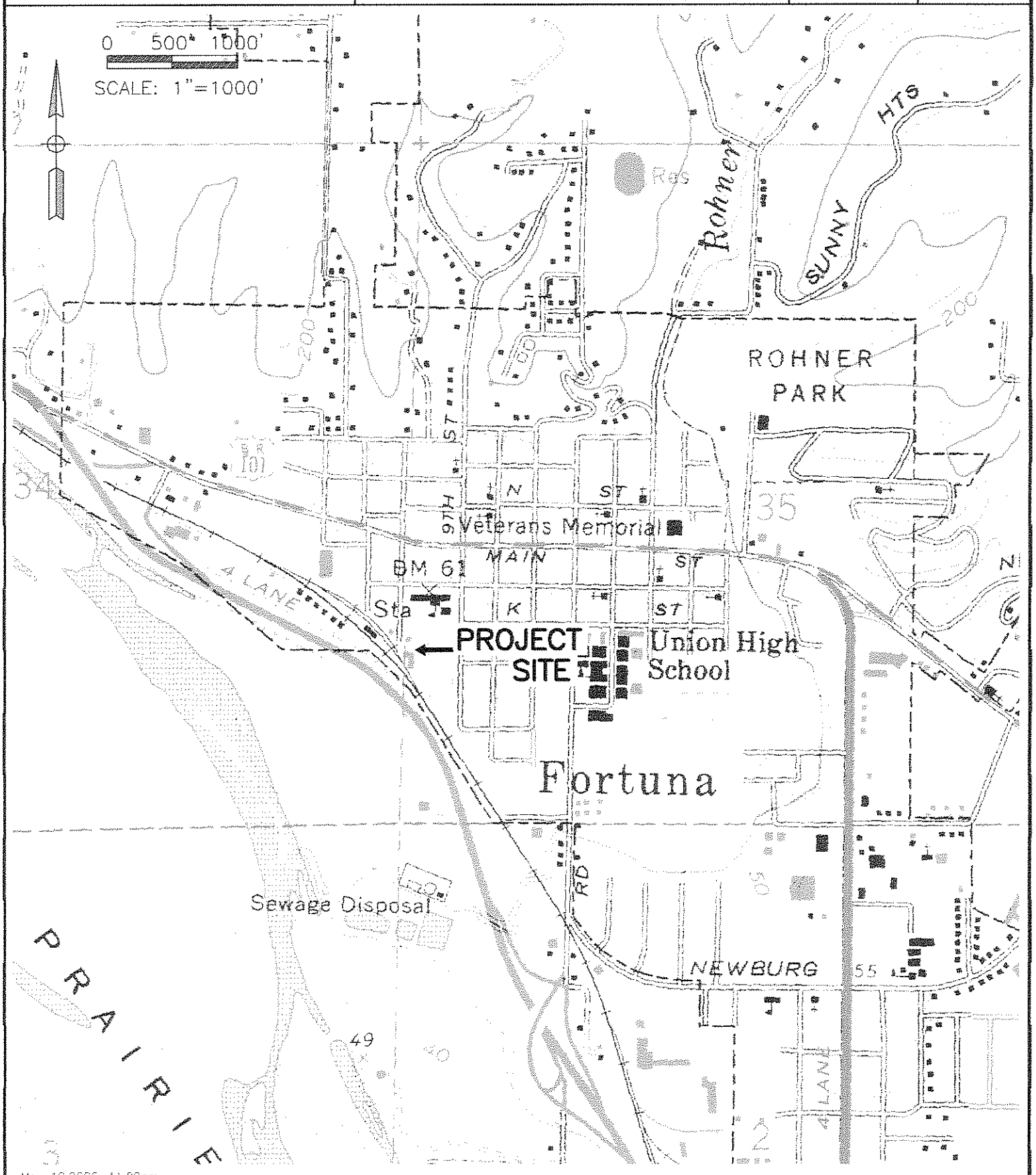
Table 1: Well Data and Groundwater Analytical Results
Table 2: Decay Rates for TPHg and Benzene

Chart 1: TPHg Concentrations and Trend Line for Monitoring Well MW31
Chart 2: Benzene Concentrations and Trend Line for Monitoring Well MW31
Chart 3: TPHg Concentrations and Trend Line for Monitoring Well MW32
Chart 4: Benzene Concentrations and Trend Line for Monitoring Well MW32

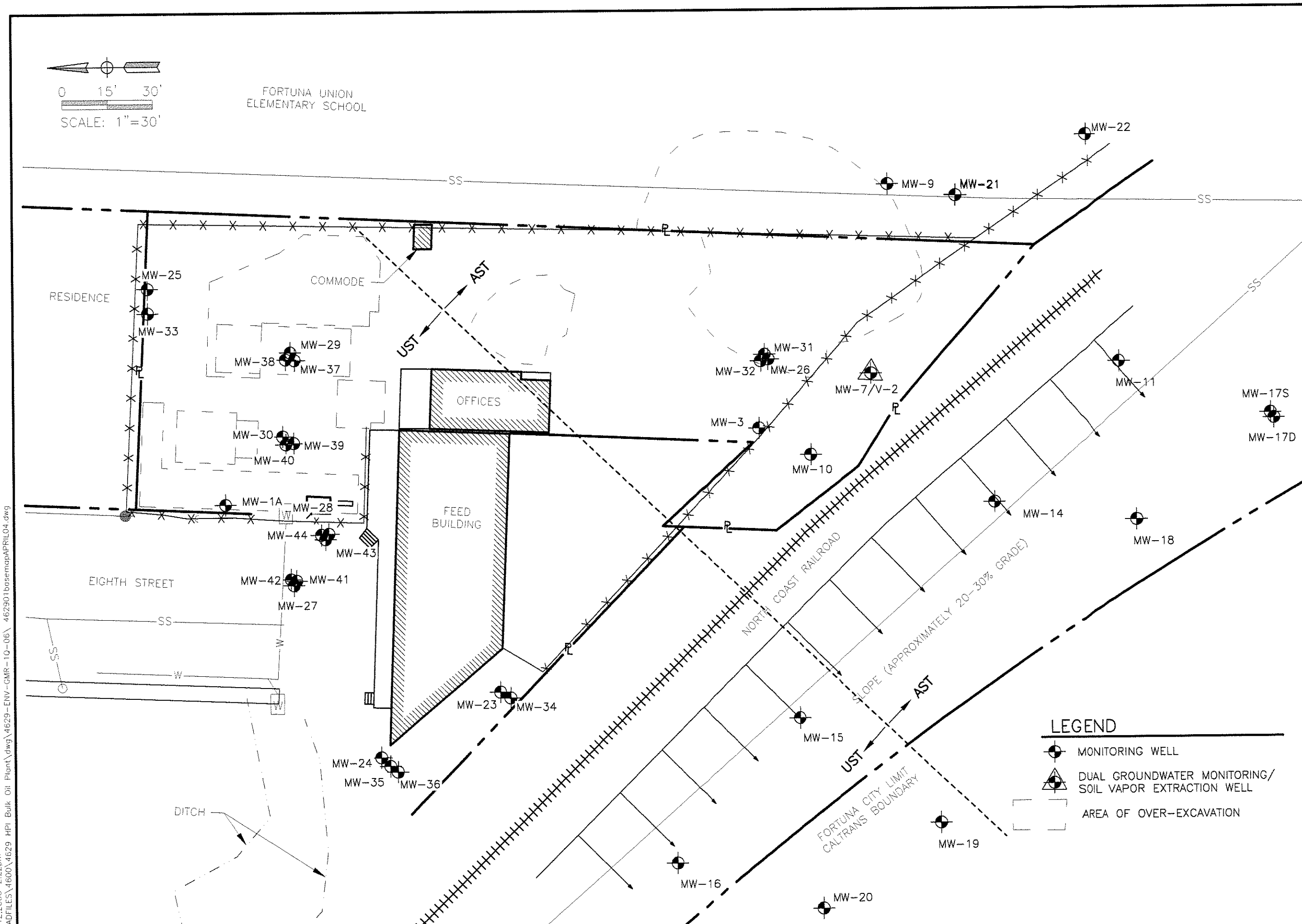
Worksheet 1: Decay Rates in Monitoring Wells MW31 and MW32, Derived from Analytical Results

Attachment 1: Key to Abbreviations
Attachment 2: Field Data Sheets
Attachment 3: Laboratory Analytical Reports
Attachment 4: Total Xylenes as a Proxy for TPHg

LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	W & S ENVIRO	DATE	4/12/06	1
	LOCATION	FORMER BULK PLANT, FORTUNA, CA	CHECK	AT	JOB NO.
		LOCATION MAP	SCALE	1"=1000'	4629.05



May 10,2006-11:09am
T:\CADFILES\4600\4629 HPI Bulk Oil Plant\dwg\4629-ENV-GMR-10-06\ 4629-LOC.dwg



LACO ASSOCIATES
CONSULTING ENGINEERS
21 W 4TH ST. EUREKA, CA 95501 (707)443-5054

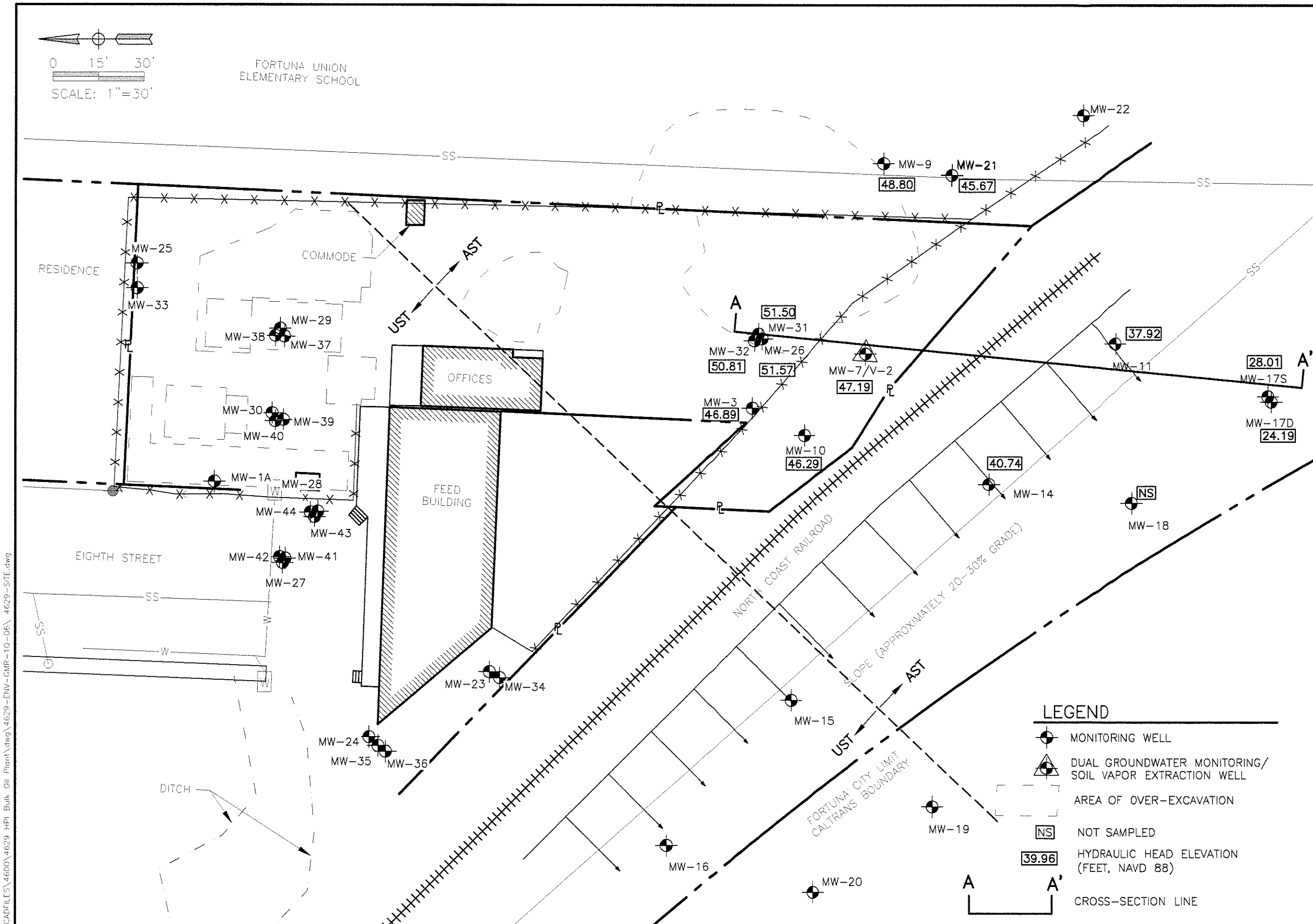
NO.	REVISION	BY	CHK	DATE

GROUNDWATER MONITORING REPORT - AST AREA
SITE MAP

HUMBOLDT PETROLEUM, INC
FORMER BULK PLANT, FORTUNA, CA

SCALE	1"=30'
DRAWN	RJM
CHECK	
APPVD	
DATE	4/12/06
JOB NO.	4629.05
FIGURE	2

Apr 12,2006-2:22pm
T:\CADFILES\4600\4629 HPI Bulk Oil Plant\dwg\4629-ENV-GMR-10-06\ 4629010basemapAPRIL04.dwg



LACO ASSOCIATES
CONSULTING ENGINEERS
21 W 4TH ST. EUREKA, CA 95501 (707)443-5054

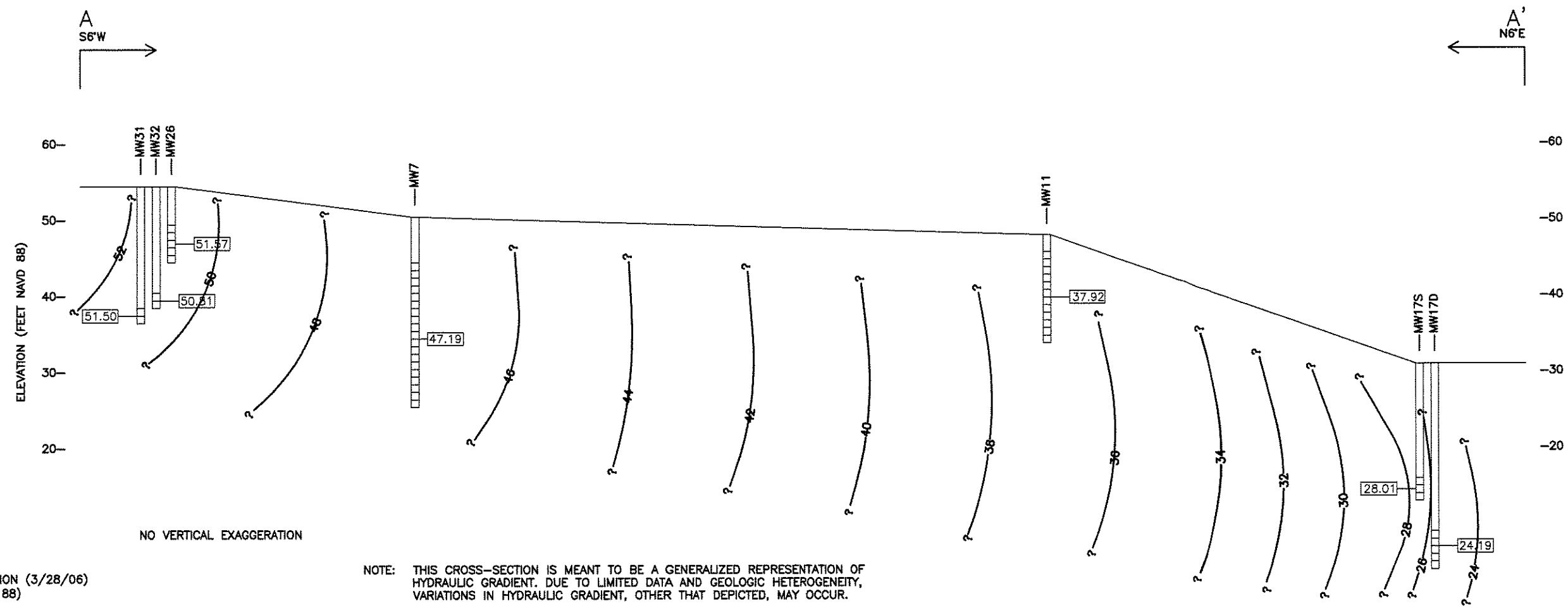
NO.	REVISION	BY	CHK	DATE

GROUNDWATER MONITORING REPORT - AST AREA
HYDRAULIC HEAD ELEVATIONS (3/28/06)

W & S ENVIRO
FORMER BULK PLANT, FORTUNA, CA

SCALE	1"=30'
DRAWN	BAB
CHECK	
APPVD	
DATE	12/01/05
JOB NO.	4629.02
FIGURE	3

Apr 27,2006-11:58am
T:\CADFILES\4600\4629 HPI Bulk Oil Plant\dwg\4629-ENV-GMR-10-06\ 4629-SITE.dwg



MONITORING WELL

W/ SCREENED INTERVAL

NO VERTICAL EXAGGERATION

47.19 HYDRAULIC HEAD ELEVATION (3/28/06) (Feet, NAVD 88)

42 POTENTIOMETRIC CONTOUR

NOTE: THIS CROSS-SECTION IS MEANT TO BE A GENERALIZED REPRESENTATION OF HYDRAULIC GRADIENT. DUE TO LIMITED DATA AND GEOLOGIC HETEROGENEITY, VARIATIONS IN HYDRAULIC GRADIENT, OTHER THAT DEPICTED, MAY OCCUR.

REDUCED COPY

NO.	REVISION	BY	CHK	DATE

LACO ASSOCIATES
CONSULTING ENGINEERS
21 W. 4TH ST. EUREKA, CA 95501 (707)443-8054

GROUNDWATER MONITORING REPORT
CROSS-SECTIONAL HYDRAULIC GRADIENT MAP (3/28/06)

W & S ENMRO
FORMER BULK PLANT, FORTUNA CA

SCALE	1"=10'
DRAWN	BAB
CHECK	PAT
APPVD	G
DATE	4/21/06
JOB NO.	4629.06
FIGURE	4

Jun 27,2006-12:01pm
E:\CADFILES\4600\4629 HPI Bulk Oil Plant\dwg\4629-ENV-GMR-10-06\ 4629-X-SECT.dwg

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-1		50.87													
10/7/1993			46.27	4.60	4,500	560	ND <500	---	2,000	110	ND	195	---	---	---
11/11/1993			43.55	7.32	---	---	---	---	---	---	---	---	---	---	---
12/29/1993			48.20	2.67	---	---	---	---	---	---	---	---	---	---	---
1/24/1994			49.75	1.12	16,000	1,300	ND <500	---	5,300	270	120	490	---	---	---
2/24/1994			50.19	0.68	---	---	---	---	---	---	---	---	---	---	---
3/28/1994			49.34	1.53	---	---	---	---	---	---	---	---	---	---	---
4/25/1994			49.36	1.51	14,000	5,500	---	ND	5,500	64	ND	150	---	---	---
5/12/1994			48.84	2.03	---	---	---	---	---	---	---	---	---	---	---
6/3/1994			48.13	2.74	---	---	---	---	---	---	---	---	---	---	---
7/19/1994			45.78	5.09	0.02	feet free product									---
9/21/1994			43.07	7.80	---	---	---	---	---	---	---	---	---	---	---
10/25/1994			42.05	8.82	---	---	---	---	---	---	---	---	---	---	---
11/16/1994			47.71	3.16	---	---	---	---	---	---	---	---	---	---	---
12/8/1994			48.63	2.24	---	---	---	---	---	---	---	---	---	---	---
1/9/1995			50.07	0.80	15,000	390,000	---	310	3,100	180	330	800	---	---	5.0
2/7/1995			50.59	0.28	---	---	---	---	---	---	---	---	---	---	---
3/7/1995			49.75	1.12	---	---	---	---	---	---	---	---	---	---	---
4/5/1995			49.48	1.39	11,000	21,000	---	19	4,900	140	200	380	---	---	4.0
4/5/95 (D)			duplicate sample		13,000	24,000	---	18	4,300	120	160	380	---	---	---
6/23/1995			48.41	2.46	---	---	---	---	---	---	---	---	---	---	---
7/5/1995			47.39	3.48	17,000	23,000	---	8.1	6,800	510	190	610	---	---	3.0
8/3/1995			46.55	4.32	---	---	---	---	---	---	---	---	---	---	---
9/6/1995			46.06	4.81	---	---	---	---	---	---	---	---	---	---	---
10/9/1995			46.36	4.51	5,800	8,100	---	ND	2,100	48	100	150	---	---	1.5
11/16/1995			46.89	3.98	---	---	---	---	---	---	---	---	---	---	---
1/16/1996			49.90	0.97	20,000	25,000	---	23	7,100	400	380	940	---	---	2.0
4/23/1996			50.17	0.70	17,000	23,000	---	11	6,600	280	300	730	---	---	3.0
4/23/96 (D)			duplicate sample		19,000	17,000	---	3.1	6,100	250	290	590	---	---	---
7/10/1996			48.17	2.70	11,000	13,000	---	ND	4,700	160	290	510	---	---	3.0
10/22/1996			46.59	4.28	12,000	8,800	---	1.8	3,800	110	160	280	---	---	3.0
1/21/1997			50.17	0.70	15,000	9,100	---	4.7	4,800	180	220	550	ND	---	4.0
4/15/1997			49.17	1.70	11,000	5,400	---	7.3	3,900	130	210	470	ND	---	3.0
4/15/97 (D)			duplicate sample		10,000	5,300	---	---	3,700	140	210	490	260	---	---
5/20/1997			48.82	2.05	---	---	---	---	---	---	---	---	---	---	---
7/29/1997			46.92	3.95	11,000	21,000	---	---	3,300	68	150	220	ND	---	3.0
10/15/1997			47.12	3.75	13,000	11,000	---	1.8	5,500	140	120	380	250	---	4.0
1/20/1998			50.67	0.20	2,600	5,300	---	ND	880	24	30	78	ND	---	3.0
1/20/98 (D)			50.87		2,700	1,900	---	---	780	ND	ND	69	ND	---	---
4/15/1998			50.07	0.80	12,000	8,000	---	50.0	3,400	93	210	380	ND	---	3.8
7/28/1998			46.67	4.20	7,300	5,500	---	5.7	1,700	53	120	190	ND <2.5	---	2.6
1/26/2000			50.04	0.83	14,000	10,000	1,900	---	3,300	100	70	252	---	---	---
						6,300 w/silica gel cleanup	*700 w/silica gel cleanup*								

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-1 Continued															
5/3/2000			49.60	1.27	**3,700**	**3,200**	**190**	---	**1,100**	**62**	**110**	**169**	ND<100	---	---
8/3/2000			45.62	5.25	**11,000**	**7,600**	**340**	---	**2,700**	**79**	**72**	**158**	ND<150		1.7
10/11/2000			44.39	6.48	**9,900**	**6,200**	**360**	---	**3,400**	**61**	**69**	**178**	ND<10	---	---
11/14/2000			well destroyed												
MW-1A	5-15	51.08													
2/1/2001			well reinstalled												
2/14/2001			46.54	4.33	**500**	**210**	ND<170	---	**77**	**3.1**	**1.3**	**5.0**	ND<1.0	ND<2.5-50	---
4/12/2001			49.30	1.78	**900**	***200 w/ sgc***	ND< 170	---	**110**	**4.3**	**3.9**	**5.1**	ND<1.0	ND<1-50	1
7/10/2001			46.19	4.89	**1,400**	**680**	ND<170	---	**41**	**4.0**	**5.1**	**3.5**	ND<1.0	ND<1-20	0.5
11/1/2001			45.70	5.38	**200**	ND<50	ND<170	---	**15**	**0.71**	**0.64**	**1.2**	ND<1.0	ND<1-20	---
12/10/2001			50.56	0.52	**88**	**53**	ND<170	---	**8.7**	ND<0.50	ND<0.50	**0.73**	ND<1.0	**COD - 63,000**	0.4
3/28/2002			49.63	1.45	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	1.0
6/27/2002			47.26	3.82	**65**	ND<50	ND<170	---	**1.8**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	0.4
9/11/2002			44.17	6.91	**190**	ND<50	ND<170	---	**17**	ND<0.50	**0.52**	**0.68**	ND<1.0	ND<1-20	---
1/31/2003			48.26	2.82	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	4.4
3/26/2003			50.86	0.22	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	2.84
6/19/2003			48.00	3.08	ND<50	ND<50	ND<170	---	**11**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	0.94
9/24/2003			44.47	6.61	**150**	ND<50	ND<170	---	**0.71**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	0.00
12/18/2003			50.28	0.80	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	0.62
3/23/2004			49.24	1.84	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.20
6/29/2004			46.96	4.12	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.56
9/23/2004			43.23	7.85	**310**	ND<50	---	---	**28**	ND<2.0	ND<0.50	**0.51**	ND<15	---	0.27
12/14/2004			49.58	1.50	**250**	ND<50	---	---	**12**	ND<1.0	ND<0.50	ND<0.50	ND<13	**Iron = 690**	---
4/27/2005			49.41	1.67	**170**	ND<50	---	---	**3.2**	ND<1.5	ND<0.50	ND<0.50	ND<3.0	---	0.38
6/20/2005			50.00	1.08	**72**	ND<50	---	---	**0.98**	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.35
9/29/2005			43.94	7.14	**280**	**51**	---	---	**2.6**	ND<3.0	ND<0.50	**0.88**	ND<3.0	---	---
12/28/2005			50.66	0.42	ND<50	ND<50	---	---	**0.66**	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.44
MW-2		51.86													
10/7/1993			42.20	9.66	**11,000**	**870**	ND <500	---	**4,200**	**55**	ND <10	**19**	---	Tannin/Lignin = 20	---
11/11/1993			42.58	9.28	---	---	---	---	---	---	---	---	---	---	---
12/29/1993			46.65	5.21	---	---	---	---	---	---	---	---	---	---	---
1/24/1994			51.65	0.21	**12,000**	**1,500**	ND <500	---	**3,800**	**68**	**82**	**243**	---	---	---
2/24/1994			51.31	0.55	---	---	---	---	---	---	---	---	---	---	---
3/28/1994			50.03	1.83	---	---	---	---	---	---	---	---	---	---	---
4/25/1994			50.50	1.36	**22,000**	**6,500**	---	ND	**6,800**	**99**	**210**	**420**	---	Tannin/Lignin = 74	---
5/12/1994			47.82	4.04	---	---	---	---	---	---	---	---	---	---	---
6/3/1994			46.78	5.08	---	---	---	---	---	---	---	---	---	---	---
7/19/1994			44.68	7.18	**16,000**	**8,600**	---	3,500	**4,400**	**120**	**160**	**300**	---	Tannin/Lignin: ND	3.2
9/21/1994			42.26	9.60	---	---	---	---	---	---	---	---	---	---	---
10/25/1994			40.99	10.87	**17,000**	**3,400**	---	ND	**6,400**	ND	**120**	**190**	---	Tannin/Lignin = 83	2.0
11/16/1994			45.85	6.01	---	---	---	---	---	---	---	---	---	---	---
12/8/1994			48.17	3.69	---	---	---	---	---	---	---	---	---	---	---
1/9/1995			51.81	0.05	**13,000**	**7,500**	---	ND	**3,200**	**75**	**160**	**890**	---	Tannin/Lignin = 55	3.0
2/7/1995			50.77	1.09	---	---	---	---	---	---	---	---	---	---	---
3/7/1995			50.35	1.51	---	---	---	---	---	---	---	---	---	---	---
4/5/1995			49.96	1.90	**20,000**	**8,800**	---	ND	**5,900**	**150**	**450**	**2,000**	---	Tannin/Lignin = 77	5.0

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-2 continued															
6/23/1995			46.93	4.93	---	---	---	---	---	---	---	---	---	---	---
7/5/1995			45.91	5.95	19,000	11,000	---	ND	6,400	140	330	1,100	---	Tannin/Lignin = 120	3.5
8/3/1995			44.79	7.07	---	---	---	---	---	---	---	---	---	---	---
9/6/1995			43.83	8.03	---	---	---	---	---	---	---	---	---	---	---
10/9/1995			42.99	8.87	14,000	8,800	---	ND	7,000	140	230	470	---	Tannin/Lignin = 83	2.0
11/16/1995			42.41	9.45	---	---	---	---	---	---	---	---	---	---	---
1/16/1996			51.59	0.27	10,000	11,000	---	1.5	3,100	74	110	490	---	Tannin/Lignin = 57	3.0
4/23/1996			50.59	1.27	13,000	14,000	---	2.3	3,700	85	190	920	---	Tannin/Lignin = 74	4.0
7/10/1996			46.26	5.60	15,000	13,000	---	ND	4,600	160	220	760	---	Tannin/Lignin = 86	4.0
10/22/1996			43.31	8.55	7,100	8,500	---	2.8	3,300	77	96	180	340	Tannin/Lignin = 220	3.0
1/21/1997			50.41	1.45	12,000	9,700	---	4.6	2,500	60	110	660	ND	Tannin/Lignin = 43	3.0
1/21/97 (D)			duplicate sample		11,000	10,000	---	---	2,400	58	100	650	ND		---
4/15/1997			47.31	4.55	9,500	7,300	---	3.6	2,600	60	110	470	160	Tannin/Lignin = 47	3.0
5/20/1997			46.91	4.95	---	---	---	---	---	---	---	---	---	---	---
7/29/1997			44.76	7.10	14,000	8,600	---	---	5,100	110	140	280	ND	---	3.0
7/29/97 (D)			duplicate sample		14,000	8,400	---	---	4,800	120	130	250	ND	---	---
10/15/1997			44.86	7.00	19,000	8,700	---	1.3	4,500	130	120	170	ND <250	---	3.0
10/15/97 (D)			duplicate sample		16,000	6,300	---	---	4,200	120	100	150	ND <250	---	---
1/20/1998			51.61	0.25	7,900	8,100	---	ND	1,700	40	72	200	ND	---	2.0
4/15/1998			51.03	0.83	9,900	8,500	---	65	2,300	50	100	280	ND	Tannin/Lignin = 42	2.2
7/28/1998			45.33	6.53	9,700	5,300	---	ND <5.0	2,400	81	140	400	ND <25	Tannin/Lignin = 34	2.4
7/28/98 (D)			duplicate sample		9,300	4,500	---	---	2,400	80	140	390	31	---	---
1/26/2000			50.83	1.03	7,900	2,400	ND <500	---	3,300	70	93	84	ND<10		---
5/3/2000			48.64	3.22	5,800	55	ND<170	---	1,600	ND<80	120	214	ND<30	---	---
8/3/2000			44.74	7.12	10,000	92	ND<170	---	3,200	69	90	108	ND<200	---	0.8
10/11/2000			42.37	9.49	11,000	ND<50	ND<170	---	4,900	97	100	76	ND<20	---	0.6
1/4/2001			46.09	5.77	3,000	280	ND<170	---	670	20	37	34.6	ND<2.0	---	---
4/12/2001			49.59	2.27	1,100	*65 w/ silica gel cleanup*	*ND<170*	---	230	2.4	14	7.7	ND<2.0	---	0.8
7/10/2001			44.86	7.00	5,600	3,100	270	---	1,700	23	39	29	ND<10	ND<10-200	0.3
11/1/2001			40.81	11.05	10,000	360	ND<170	---	3,900	53	41	37.3	ND<5.0	ND<5-100	---
12/10/2001			47.36	4.50	10,000	140	ND<170	---	4,600	77	53	41.5	ND<1.0	**COD - 380,000**	2.8
3/28/2002			48.49	3.37	6,200	270	ND<170	---	1,900	34	34	37	ND<50	ND<50-1000	1.0
6/27/2002			44.83	7.03	5,800	310	ND<170	---	3,800	56	34	ND<25	ND<50	ND<50-1000	0.5
9/11/2002			45.78	6.08	7,700	160	ND<170	---	2,600	50	39	25	ND<50	ND<50-1000	---
12/4/2002			well destroyed												
MW-3	3-20	50.87													
10/7/1993			40.28	10.59	340	230	ND <500	---	140	3.0	1.3	2.8	---	---	---
11/11/1993			39.48	11.39	---	---	---	---	---	---	---	---	---	---	---
12/29/1993			43.91	6.96	---	---	---	---	---	---	---	---	---	---	---
1/24/1994			49.57	1.30	690	170	ND <500	---	150	5.4	2.6	4.2	---	---	---
2/24/1994			47.11	3.76	---	---	---	---	---	---	---	---	---	---	---
3/28/1994			45.63	5.24	---	---	---	---	---	---	---	---	---	---	---

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-3 continued															
4/25/1994			46.27	4.60	860	1,100	---	ND	190	ND	ND	ND	---	---	---
5/12/1994			44.45	6.42	---	---	---	---	---	---	---	---	---	---	---
6/3/1994			43.85	7.02	---	---	---	---	---	---	---	---	---	---	---
7/19/1994			41.95	8.92	980	2,200	---	ND	240	10	4.7	11	---	---	4.0
9/21/1994			39.38	11.49	---	---	---	---	---	---	---	---	---	---	---
10/25/1994			38.40	12.47	530	1,200	---	ND	170	ND	ND	ND	---	---	3.0
11/16/1994			39.47	11.40	---	---	---	---	---	---	---	---	---	---	---
12/8/1994			44.48	6.39	---	---	---	---	---	---	---	---	---	---	---
1/9/1995			50.83	0.04	510	1,100	---	ND	110	2.0	1.6	2.3	---	---	5.0
2/7/1995			46.51	4.36	---	---	---	---	---	---	---	---	---	---	---
3/7/1995			46.11	4.76	---	---	---	---	---	---	---	---	---	---	---
4/5/1995			45.76	5.11	480	1,500	---	ND	130	3.1	ND	2.7	---	---	3.0
6/23/1995			43.92	6.95	---	---	---	---	---	---	---	---	---	---	---
7/5/1995			43.38	7.49	560	1,700	---	ND	130	4.6	1.6	2.1	---	---	3.0
8/3/1995			42.40	8.47	---	---	---	---	---	---	---	---	---	---	---
9/6/1995			41.19	9.68	---	---	---	---	---	---	---	---	---	---	2.5
10/9/1995			40.46	10.41	570	2,300	---	ND	210	3.8	ND	4.6	---	---	---
11/16/1995			39.82	11.05	---	---	---	---	---	---	---	---	---	---	---
1/16/1996			48.44	2.43	680	2,200	---	1.4	200	3.8	ND	3.1	---	---	4.0
4/23/1996			46.17	4.70	520	2,300	---	ND	160	2.2	ND	2.2	---	---	4.0
7/10/1996			44.12	6.75	680	2,100	---	ND	240	5.4	ND	5.9	---	---	4.0
10/22/1996			42.17	8.70	550	2,600	---	ND	210	2.2	ND	3.9	27	---	4.0
1/21/1997			45.47	5.40	370	1,400	---	ND	87	1.2	ND	1.1	7.7	---	3.0
4/15/1997			44.12	6.75	820	1,800	---	ND	170	3.3	2.5	4.2	32	---	4.0
7/29/1997			43.27	7.60	790	2,300	---	---	230	ND	ND	ND	ND	---	4.0
10/15/1997			43.62	7.25	210	2,100	---	ND <1.2	49	0.60	ND <0.50	0.57	4.9	---	3.0
1/20/1998			49.59	1.28	370	1,100	---	ND	67	ND	ND	0.80	15	---	3.0
4/15/1998			46.37	4.50	1,600	2,600	---	17	310	ND	ND	ND	ND	---	2.6
7/28/1998			42.72	8.15	960	2,900	---	ND <5.0	230	6.2	3.8	4.2	6.7	---	2.0
1/26/2000			46.87	4.00	1,400	370	ND <500	---	270	7.5	2.2	3.9	ND<8.0	---	---
5/3/2000			44.88	5.99	640	ND<50	ND<170	---	200	ND<10	2.5	1.7	ND<10	---	---
8/3/2000			42.07	8.80	1,000	ND<50	ND<170	---	210	8.5	2.8	3.0	ND<30	---	0.7
10/11/2000			39.62	11.25	5,800	ND<50	ND<170	---	500	39	47	22.2	ND<20	---	0.8
1/4/2001			43.01	7.86	1,800	94	ND<170	---	580	9.1	3.3	4.0	ND<2	---	---
4/12/2001			45.38	5.49	ND<100	*ND<50 w/ silica gel*	ND<170	---	10	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	0.9
7/10/2001			41.70	9.17	2,300	94	ND<170	---	610	12	4.3	8.14	ND<1.0	**TBA - 20 DIPE-1.8**	1.0
11/1/2001			Well is buried		---	---	---	---	---	---	---	---	---	---	---
12/10/2001			46.15	4.72	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	5.1
3/28/2002			45.80	5.07	82	62	ND<170	---	11	ND<0.50	ND<0.50	0.61	ND<1.0	ND<1-20	---
6/27/2002			Well inaccessible		---	---	---	---	---	---	---	---	---	---	---
3/25/2003			---	---	---	---	---	---	---	---	---	---	---	---	
9/23/2003			40.90	9.97	1,000	65	ND<170	---	200	3.9	1.2	2.0	ND<1.0	ND<1-20	0.63
3/23/2004			44.55	6.32	710	ND<50	ND<170	---	130	2.1	0.71	1.2	ND<1.0	ND<1-10	0.65

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-3 Continued															
9/22/2004			39.64	11.23	2,100	110	ND<170	---	480	16	3.9	6.9	ND<20	---	0.52
3/30/2005			48.64	2.23	180	ND<50	ND<170	---	38	1.2	ND<0.50	0.59	ND<3.0	---	0.51
4/26/2005			44.58	6.29	1,400	71	---	---	270	11	2.7	4.5	ND<20	---	0.42
5/24/2005			44.71	6.16	1,700	91	ND<170	---	400	12	3.3	7.0	ND<20	---	0.34
6/27/2005			44.02	6.85	1,800	110	ND<170	---	440	10	2.8	6.9	ND<18	---	2.52
7/28/2005			42.86	8.01	1,600	130	---	---	360	11	1.9	5.5	ND<15	---	0.38
8/25/2005			41.97	8.90	1,900	130	---	---	530	15	3.6	8.1	ND<20	---	0.41
9/26/2005			40.80	10.07	1,300	71	ND<170	---	280	9.2	2.0	5.2	ND<10	---	0.65
10/24/2005			39.91	10.96	1,800	110	---	---	460	8.5	2.2	9.4	ND<1.0	ND<1.0-28	0.37
11/17/2005			42.88	7.99	1,700	89	---	---	400	6.1	1.2	4.1	ND<1.0	ND<1.0-10	0.29
12/8/2005			44.90	5.97	310	55	---	---	76	1.0	ND<0.50	0.68	ND<1.0	ND<1.0-10	0.44
1/25/2006			46.33	4.54	1,800	90	---	---	400	6.0	1.2	4.1	ND<1.0	ND<1.0-10	0.27
3/28/2006			46.89	3.98	1,400	83	ND<170	---	280	8.7	1.6	4.1	ND<12	---	0.30
MW-4		52.62													
6/3/1994			48.79	3.83	---	---	---	---	---	---	---	---	---	---	---
7/19/1994			47.27	5.35	ND	ND	---	2,800	ND	ND	ND	ND	---	Tannin/Lignin = ND	3.0
9/21/1994			44.29	8.33	---	---	---	---	---	---	---	---	---	---	---
10/25/1994			42.99	9.63	ND	ND	---	ND	ND	ND	ND	ND	---	---	7.0
11/16/1994			47.75	4.87	---	---	---	---	---	---	---	---	---	---	---
12/8/1994			49.87	2.75	---	---	---	---	---	---	---	---	---	---	---
1/9/1995			52.62	0.00	ND	300	---	ND	ND	ND	ND	ND	---	---	6.0
2/7/1995			51.76	0.86	---	---	---	---	---	---	---	---	---	---	---
3/7/1995			51.43	1.19	---	---	---	---	---	---	---	---	---	---	---
4/5/1995			51.07	1.55	ND	86	---	ND	ND	ND	ND	ND	---	---	4.0
6/23/1995			49.47	3.15	---	---	---	---	---	---	---	---	---	---	---
7/5/1995			48.87	3.75	ND	130	---	ND	ND	ND	ND	ND	---	---	2.5
8/3/1995			47.69	4.93	---	---	---	---	---	---	---	---	---	---	---
9/6/1995			46.42	6.20	---	---	---	---	---	---	---	---	---	---	---
10/9/1995			46.21	6.41	ND	69	---	ND	ND	ND	ND	ND	---	---	2.5
1/16/1996			51.75	0.87	ND	95	---	1.1	ND	ND	ND	ND	---	---	4.5
4/23/1996			51.42	1.20	ND	59	---	ND	ND	ND	ND	ND	---	---	4.0
7/10/1996			48.37	4.25	ND	53	---	ND	ND	ND	ND	ND	---	---	4.0
10/22/1996			46.10	6.52	ND	86	---	ND	ND	ND	ND	ND	ND	---	4.0
1/21/1997			51.37	1.25	ND	81	---	ND	ND	ND	ND	ND	ND	---	3.0
4/15/1997			49.62	3.00	ND	ND	---	ND	ND	ND	ND	ND	ND	---	3.0
5/20/1997			49.10	3.52	---	---	---	---	---	---	---	---	---	---	---
7/29/1997			46.97	5.65	ND	210	---	---	ND	ND	ND	ND	ND	---	3.0
10/15/1997			46.67	5.95	ND <50	ND <50	---	ND <1.3	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	2.0
1/20/1998			49.97	2.65	ND	140	---	ND	ND	ND	ND	ND	ND	---	2.0
4/15/1998			51.27	1.35	ND	ND	---	1.0	ND	ND	ND	ND	ND	---	2.4
7/28/1998			47.72	4.90	ND <50	75	---	ND <5.0	ND <0.50	1.1	ND <0.50	ND <0.50	ND <2.5	---	3.2
1/26/2000			51.85	0.77	ND<50	ND<50	ND<500	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	37	---	---
5/3/2000			51.13	1.49	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
8/3/2000			48.33	4.29	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	1.2
8/3/2000			duplicate sample		ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
10/11/2000			45.65	6.97	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5	---	0.8
1/4/2001			49.91	2.71	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5	---	---
4/12/2001			50.81	1.81	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5	---	1.2
7/10/2001			47.20	5.42	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5	ND<0.50-20	0.4

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-4 Continued															
11/1/2001			45.55	7.07	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5	ND<0.50-20	---
12/10/2001			51.56	1.06	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5	**COD - 7700**	0.6
3/28/2002			51.06	1.56	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5	ND<1-20	1.0
6/27/2002			47.96	4.66	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5	ND<1-20	0.8
9/11/2002			45.22	7.40	ND<50	ND<50	ND<170	---	**1.6**	ND<0.50	ND<0.50	ND<0.50	ND<0.5	ND<1-20	---
12/4/2002			Well destroyed												
MW-5		52.40													
6/3/1994			47.96	4.44	---	---	---	---	---	---	---	---	---	---	---
7/19/1994			46.57	5.83	ND	**400**	---	ND	ND	ND	ND	ND	---	---	4.0
9/21/1994			43.70	8.70	---	---	---	---	---	---	---	---	---	---	---
10/25/1994			42.40	10.00	ND	**78**	---	ND	ND	ND	ND	ND	---	---	1.0
11/16/1994			47.42	4.98	---	---	---	---	---	---	---	---	---	---	---
12/8/1994			48.75	3.65	---	---	---	---	---	---	---	---	---	---	---
1/9/1995			51.32	1.08	ND	**330**	---	ND	**1.8**	ND	ND	**2.2**	---	---	5.0
2/7/1995			50.54	1.86	---	---	---	---	---	---	---	---	---	---	---
3/7/1995			50.02	2.38	---	---	---	---	---	---	---	---	---	---	---
4/5/1995			49.84	2.56	**53**	**380**	---	ND	**2.4**	**0.53**	**0.53**	**3.0**	---	---	3.0
6/23/1995			48.33	4.07	---	---	---	---	---	---	---	---	---	---	---
7/5/1995			47.59	4.81	ND	**400**	---	ND	ND	ND	ND	ND	---	---	4.0
7/5/95 (D)			duplicate sample		ND	**370**	---	ND	ND	ND	ND	ND	---	---	---
8/3/1995			46.50	5.90	---	---	---	---	---	---	---	---	---	---	---
9/6/1995			45.56	6.84	---	---	---	---	---	---	---	---	---	---	---
10/9/1995			45.08	7.32	ND	**50**	---	ND	ND	ND	ND	ND	---	---	6.0
11/16/1995			44.77	7.63	---	---	---	---	---	---	---	---	---	---	---
1/16/1996			51.30	1.10	ND	**560**	---	**1.4**	**4.2**	**0.78**	**0.58**	**2.9**	---	---	3.0
4/23/1996			50.30	2.10	ND	**590**	---	ND	**2.3**	ND	ND	**1.1**	---	---	4.0
7/10/1996			47.65	4.75	ND	**380**	---	ND	ND	ND	ND	ND	---	---	3.0
7/10/1996			duplicate sample		ND	**380**	---	ND	**0.52**	ND	ND	ND	---	---	---
10/22/1996			45.50	6.90	ND	**320**	---	ND	ND	ND	ND	ND	ND	---	3.0
1/21/1997			50.05	2.35	**75**	**630**	---	ND	**0.90**	ND	ND	**0.82**	**3.2**	---	3.0
4/15/1997			48.40	4.00	ND	**330**	---	ND	**0.69**	ND	ND	ND	ND	---	3.0
5/20/1997			48.72	3.68	---	---	---	---	---	---	---	---	---	---	---
7/29/1997			46.70	5.70	ND	**450**	---	---	ND	ND	ND	ND	ND	---	3.0
10/15/1997			46.05	6.35	ND <50	**450**	---	ND <1.1	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	3.0
1/20/1998			50.25	2.15	ND	**430**	---	ND	ND	ND	ND	ND	ND	---	3.0
4/15/1998			50.35	2.05	ND	**550**	---	**6.4**	**0.5**	ND	ND	ND	ND	---	2.8
7/28/1998			46.90	5.50	ND <50	**220**	---	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	2.6
1/26/2000			Well not found		---	---	---	---	---	---	---	---	---	---	---
5/3/2000			Well not found		---	---	---	---	---	---	---	---	---	---	---
8/3/2000			Well not found		---	---	---	---	---	---	---	---	---	---	---
10/11/2000			Well not found		---	---	---	---	---	---	---	---	---	---	---
1/4/2001			Well not found		---	---	---	---	---	---	---	---	---	---	---
4/12/2001			49.65	2.75	ND <50	ND<50	ND<170	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	0.7
7/10/2001			46.32	6.08	ND <50	ND<50	ND<170	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<0.50-20	0.4
11/1/2001			43.95	8.45	ND <50	ND<50	ND<170	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<0.50-20	---
12/10/2001			50.40	2.00	ND <50	ND<50	ND<170	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<0.50-20	1.4
3/28/2002			50.21	2.19	ND <50	ND<50	ND<170	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<0.50-20	0.9
6/27/2002			48.30	4.10	ND <50	ND<50	ND<170	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <1.0	ND<0.50-20	0.35
9/11/2002			Well not found	---	---	---	---	---	---	---	---	---	---	---	---
12/4/2002			Well destroyed												

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-6		50.63													
6/3/1994			46.32	4.31	---	---	---	---	---	---	---	---	---	---	---
7/19/1994			44.63	6.00	ND	ND	---	ND	ND	ND	ND	ND	---	---	2.0
9/21/1994			42.17	8.46	---	---	---	---	---	---	---	---	---	---	---
10/25/1994			41.30	9.33	ND	ND	---	ND	ND	ND	ND	ND	---	---	2.0
11/16/1994			48.24	2.39	---	---	---	---	---	---	---	---	---	---	---
12/8/1994			48.75	1.88	---	---	---	---	---	---	---	---	---	---	---
1/9/1995			49.62	1.01	ND	**150**	---	ND	ND	ND	ND	ND	---	---	3.0
2/7/1995			49.01	1.62	---	---	---	---	---	---	---	---	---	---	---
3/7/1995			48.28	2.35	---	---	---	---	---	---	---	---	---	---	---
4/5/1995			48.20	2.43	ND	**87**	---	ND	**0.81**	ND	ND	ND	---	---	2.0
6/23/1995			47.46	3.17	---	---	---	---	---	---	---	---	---	---	---
7/5/1995			46.65	3.98	ND	**120**	---	ND	ND	ND	ND	ND	---	---	3.5
8/3/1995			46.03	4.60	---	---	---	---	---	---	---	---	---	---	---
9/6/1995			46.13	4.50	---	---	---	---	---	---	---	---	---	---	---
10/9/1995			47.14	3.49	ND	**150**	---	ND	ND	ND	ND	ND	---	---	1.5
11/16/1995			48.11	2.52	---	---	---	---	---	---	---	---	---	---	---
1/16/1996			49.70	0.93	ND	**200**	---	**1.3**	ND	ND	ND	ND	---	---	2.0
4/23/1996			49.38	1.25	ND	**140**	---	ND	ND	ND	ND	ND	---	---	3.0
7/10/1996			47.78	2.85	ND	**120**	---	ND	ND	ND	ND	ND	---	---	3.0
10/22/1996			47.40	3.23	ND	**120**	---	ND	ND	ND	ND	ND	---	---	3.0
10/22/96 (D)			duplicate sample		ND	**140**	---	ND	ND	ND	ND	ND	ND	---	---
1/21/1997			50.08	0.55	ND	**120**	---	ND	ND	ND	ND	ND	**3.7**	---	3.0
4/15/1997			48.88	1.75	ND	ND	---	ND	ND	ND	ND	ND	ND	---	3.0
5/20/1997			47.96	2.67	---	---	---	---	---	---	---	---	---	---	---
7/29/1997			47.13	3.50	ND	**99**	---	---	ND	ND	ND	ND	ND	---	3.0
10/15/1997			47.53	3.10	ND <50	**86**	---	ND <1.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	3.0
1/20/1998			49.38	1.25	ND	**52**	---	ND	ND	ND	ND	ND	ND	---	2.0
4/15/1998			49.28	1.35	ND	ND	---	**2.8**	ND	ND	ND	ND	ND	---	2.6
7/28/1998			47.15	3.48	ND <50	**74**	---	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	2.4
1/26/2000			49.23	1.40	ND<50	ND<50	ND<500	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**37**	---	---
5/3/2000			47.95	2.68	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	---
8/3/2000			44.50	6.13	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**5.7**	---	0.7
10/11/2000			44.83	5.80	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**31**	---	1.0
1/4/2001			46.56	4.07	ND<50	ND<50	ND<170	---	**5.8**	ND <0.50	ND <0.50	ND <0.50	**23**	---	---
4/12/2001			48.70	1.93	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**10**	---	1.1
7/10/2001			44.97	5.66	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**31**	ND<0.50-20	0.5
11/1/2001			45.14	5.49	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**25**	ND<1-20	---
12/10/2001			49.27	1.36	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**14**	ND<1-20	0.4
3/28/02			48.33	2.30	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	**0.51**	**32**	**TAME - 1.7**	0.9
6/27/2002			46.43	4.20	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**14**	ND<1-20	1.1
9/11/2002			43.73	6.90	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	**15**	ND<1-20	---
12/5/2002			Well destroyed												

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-7/ V-2	6-25	51.05													
6/3/1994			42.49	8.56	---	---	---	---	---	---	---	---	---	---	---
7/19/1994			40.62	10.43	5,100	4,700	---	2,700	460	87	160	130	---	---	3.0
9/21/1994			36.83	14.22	---	---	---	---	---	---	---	---	---	---	---
10/25/1994			35.87	15.18	4,000	2,500	---	ND	430	46	95	59	---	---	1.0
11/16/1994			39.29	11.76	---	---	---	---	---	---	---	---	---	---	---
12/8/1994			43.88	7.17	---	---	---	---	---	---	---	---	---	---	---
1/9/1995			49.78	1.27	3,400	3,000	---	ND	350	66	99	73	---	---	5.0
2/7/1995			46.73	4.32	---	---	---	---	---	---	---	---	---	---	---
3/7/1995			46.41	4.64	---	---	---	---	---	---	---	---	---	---	---
4/5/1995			45.95	5.10	2,900	2,100	---	ND	340	38	61	39	---	---	4.0
6/23/1995			42.86	8.19	---	---	---	---	---	---	---	---	---	---	---
7/5/1995			42.75	8.30	3,500	2,700	---	ND	390	60	74	30	---	---	3.0
8/3/1995			41.31	9.74	---	---	---	---	---	---	---	---	---	---	---
9/6/1995			39.47	11.58	---	---	---	---	---	---	---	---	---	---	---
10/9/1995			38.01	13.04	2,500	4,300	---	ND	330	45	55	35	---	---	2.5
11/16/1995			36.76	14.29	---	---	---	---	---	---	---	---	---	---	---
1/16/1996			47.83	3.22	1,900	4,900	---	3.1	250	38	49	43	---	---	4.0
1/16/96 (D)			duplicate sample		2,100	3,300	---	---	290	46	34	47	---	---	---
4/23/1996			46.40	4.65	2,400	2,100	---	2.2	250	32	41	20	---	---	3.0
7/10/1996			43.85	7.20	3,900	3,900	---	ND	570	54	110	83	---	---	3.0
10/22/1996			38.25	12.80	3,200	4,100	---	2.2	390	54	57	43	87	---	4.0
1/21/1997			45.95	5.10	2,900	5,500	---	2.5	370	15	41	33	250	---	3.0
4/15/1997			43.50	7.55	4,200	3,000	---	2.9	340	37	50	45	ND	---	4.0
5/20/1997			43.40	7.65	---	---	---	---	---	---	---	---	---	---	---
7/29/1997			40.70	10.35	3,800	4,200	---	---	450	41	67	54	ND	---	4.0
10/15/1997			39.00	12.05	3,900	7,300	---	1.8	350	55	58	35	120	---	4.0
1/20/1998			49.90	1.15	2,000	2,300	---	1.1	140	23	ND	17	64	---	3.0
4/15/1998			46.60	4.45	6,300	3,600	---	30	530	34	37	63	ND	---	3.0
7/28/1998			41.40	9.65	3,100	2,600	---	ND <5.0	360	29	32	26	36	---	2.6
1/26/2000			46.69	4.36	3,700	1,000	ND<500	---	280	ND<0.50	27	19	ND<30	---	---
5/3/2000			44.66	6.39	400	89	ND<170	---	61	ND<10	ND<3.0	ND<3.0	ND<10	---	---
8/3/2000			40.27	10.78	890	ND<50	ND<170	---	120	14	9	5.3	ND<50	---	0.9
10/11/2000			37.03	14.02	390	ND<50	ND<170	---	180	ND<1.0	ND<1.0	ND<1.0	ND<1.0	---	0.8
1/4/2001			41.42	9.63	3,200	260	ND<170	---	340	24	25	18.6	ND<1.0	---	---
4/12/2001			45.41	5.64	380	*ND<50 w/ silica*	ND<170	---	39	1.4	1.4	ND<1.0	ND<1.0	---	0.5
7/10/2001			40.11	10.94	4,500	420	ND<170	---	380	33	36	32.6	ND<1.0	ND<1-20	2.0
11/1/2001			35.98	15.07	2,600	220	ND<170	---	340	26	26	21.7	ND<2.0	ND<2-40	---
12/10/2001			46.31	4.74	ND<50	ND<50	ND<170	---	2.5	ND <0.50	ND <0.50	ND <0.50	ND<1.0	**COD - 76000**	3.7
3/28/2002			46.40	4.65	1,000	140	ND<170	---	41	3.4	4.4	4.0	ND<1.0	ND<1-20	1.0
6/27/2002			42.89	8.16	2,700	350	ND<170	---	370	25	23	19	ND<10	ND<1-200	0.4
9/11/2002			39.70	11.35	4,100	270	ND<170	---	320	22	ND<2.5	20	ND<5.0	**TBA - 120**	1.4
3/27/2003			---	---	3,300	140	ND<170	---	130	16	22	19.8	ND<1.0	ND<1.0-20	
9/23/2003			40.05	11.00	1,200	74	ND<170	---	120	11	12	7.0	ND<1.0	ND<1.0-20	0.0
3/23/2004			44.96	6.09	690	ND <50	ND<170	---	26	2.4	3.0	2.7	ND<1.0	ND<1-10	0.68

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
W-7/ V-2 continued															
9/22/2004			37.89	13.16	**1,800**	**75**	ND<170	---	**230**	**28**	**16**	**10**	ND<70	---	0.25
4/26/2005			45.25	5.80	**500**	ND <50	---	---	**13**	**4.9**	**2.8**	**2.1**	ND<18	---	0.65
9/26/2005			39.96	11.09	**540**	ND <50	ND<170	---	**31**	**5.7**	**5.1**	**3.0**	ND<10	---	0.43
3/28/2006			47.19	3.86	**150**	ND <50	ND<170	---	**3.8**	**1.1**	**0.75**	**0.73**	ND<3.0	---	1.80
MW-8		51.13													
5/20/1997			43.70	7.43	ND	**74**	---	ND	ND	ND	ND	ND	ND	---	---
7/29/1997			41.78	9.35	ND	**150**	---	---	ND	ND	ND	ND	ND	---	2.0
10/15/1997			39.86	11.27	ND <50	**160**	---	ND <1.1	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	3.0
1/20/1998			49.28	1.85	ND	**110**	---	ND	ND	ND	ND	ND	ND	---	2.0
4/15/1998			48.13	3.00	ND	ND	---	**4.1**	ND	ND	ND	ND	ND	---	2.2
7/28/1998			42.68	8.45	ND <50	ND <50	---	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	2.6
1/26/2000			48.08	3.05	ND<50	ND<50	ND<500	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	---
5/3/2000			44.47	6.66	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	---
8/3/2000			41.85	9.28	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	1.6
10/11/2000			39.06	12.07	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<0.5	---	1.0
1/4/2001			40.89	10.24	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<0.5	---	---
4/12/2001			44.16	6.97	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<0.5	---	1
7/10/2001			42.13	9.00	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<0.5	ND<1.0-20	0.4
11/1/2001			37.89	13.24	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<0.5	ND<1.0-20	---
12/10/2001			44.01	7.12	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<0.5	ND<1.0-20	4.7
3/28/2002			46.25	4.88	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<0.5	ND<1.0-20	1.0
6/20/2002			Well Destroyed	---	---	---	---	---	---	---	---	---	---	---	---
MW-9	3-18	53.13													
5/20/1997			42.95	10.18	**1,200**	**1,700**	---	**7.6**	**400**	ND	ND	ND	ND	---	---
7/29/1997			40.93	12.20	**530**	**5,500**	---	---	**150**	ND	ND	ND	ND	---	2.0
10/15/1997			39.13	14.00	**3,200**	**13,000**	---	**13**	**160**	ND <2.5	ND <2.5	ND <2.5	**18**	---	3.0
1/20/1998			49.23	3.90	**150**	**990**	---	ND	**34**	ND	ND	ND	ND	---	2.0
4/15/1998			47.18	5.95	**460**	**940**	---	**26**	**2.5**	ND	ND	ND	ND	---	2.6
7/28/1998			41.93	11.20	**240**	**1,200**	---	ND <5.0	**66**	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	2.2
1/26/2000			46.88	6.25	**1300**	**280**	ND<500	---	**470**	**2.6**	**1.9**	ND <0.50	ND<3.0	---	---
5/3/2000			43.88	9.25	**340**	ND<50	ND<170	---	**100**	**1.1**	**0.93**	ND<0.50	ND<3.0	---	---
8/3/2000			41.33	11.80	**350**	ND<50	ND<170	---	**120**	**1.1**	**1.2**	ND<1.5	ND<15	---	1.1
10/11/2000			38.85	14.28	**810**	ND<50	ND<170	---	**390**	ND <2.0	ND <2.0	ND <2.0	ND <2.0	---	0.7
1/4/2001			40.69	12.44	**950**	**230**	ND<170	---	**380**	**2.2**	ND<1.0	ND<1.0	ND<1.0	---	---
4/12/2001			42.44	10.69	**1,600**	***67 w/ silca gel cleanup***	ND< 170	---	**740**	**5.4**	**2.1**	ND<2.0	ND<1.0	---	1.7
7/10/2001			41.35	11.78	**360**	**730**	ND< 170	---	**45**	**1.2**	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	4.0
11/1/2001			37.34	15.79	**1,100**	**160**	ND< 170	---	**310**	**3.2**	**0.62**	**0.80**	ND<1.0	ND<1.0-20	
12/10/2001			43.83	9.30	**270**	ND<50	ND< 170	---	**39**	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	
3/28/2002			45.59	7.54	**350**	**91**	ND< 170	---	**1.8**	ND <0.50	ND <0.50	**0.59**	ND<1.0	ND<1.0-20	1.0
6/27/2002			42.44	10.69	**130**	**62**	---	---	**8.3**	ND<1.0	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	---
9/11/2002			39.47	13.66	**690**	**110**	ND< 170	---	**2.7**	ND<1.0	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	0.7
3/27/2003			46.97	6.16	**240**	**58**	**250**	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	3.52
9/23/2003			41.11	12.02	**330**	ND<50	ND< 170	---	**0.78**	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	0.00

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-9 Continued															
3/23/2004			44.24	8.89	**130**	ND<50	ND< 170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1-10	0.28
9/22/2004			38.51	14.62	**280**	**69**	ND< 170	---	ND <3.0	ND <1.0	ND <0.50	ND <0.50	ND<3.0	---	0.71
4/26/2005			44.57	8.56	**160**	**69**	---	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	0.54
9/27/2005			40.83	12.30	**300**	**65**	ND< 170	---	ND <1.0	ND <1.0	ND <0.50	ND <0.50	ND<3.0	---	1.05
3/28/2006			48.80	4.33	**280**	**96**	ND< 170	---	**0.78**	ND <1.0	ND <0.50	ND <0.50	ND<3.0	---	0.79
MW-10	3-18	51.42													
5/20/1997			43.05	8.37	ND	**910**	---	**7.6**	ND	ND	ND	ND	ND	---	---
7/29/1997			41.82	9.60	ND	**1,100**	---	---	ND	ND	ND	ND	ND	---	3.0
10/15/1997			41.72	9.70	ND <50	**860**	---	ND <1.1	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	2.0
1/20/1998			48.17	3.25	ND	**640**	---	ND	ND	ND	ND	ND	ND	---	2.0
4/15/1998			45.17	6.25	ND	**800**	---	**5.6**	ND	ND	ND	ND	ND	---	2.4
7/28/1998			41.37	10.05	ND <50	**740**	---	ND <5.0	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND <2.5	---	2.6
1/26/2000			45.67	5.75	ND<50	**69**	ND<500	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	---
5/3/2000			43.75	7.67	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	---
8/3/2000			40.14	11.28	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	0.8
10/11/2000			37.04	14.38	ND<500	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<2.0	---	1.4
1/4/2001			41.78	9.64	ND<500	ND<50	ND<170	---	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	---	---
4/12/2001			44.39	7.03	ND<250	ND<50	ND<170	---	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	---	1.2
7/10/2001			39.92	11.50	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	0.5
11/1/2001			36.15	15.27	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	---
12/10/2001			45.16	6.26	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	4.7
3/28/2002			44.80	6.62	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	1.1
6/27/2002			42.05	9.37	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	0.95
9/11/2002			38.63	12.79	ND<50	ND<50	ND<170	---	**1.6**	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	1.8
3/27/2003			47.16	4.26	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	3.65
9/23/2003			39.10	12.32	**61**	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1.0-20	0.00
3/23/2004			43.85	7.57	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<1.0	ND<1-10	0.48
9/22/2004			37.62	13.80	ND<50	ND<50	ND<170	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	0.26
3/30/2005			47.71	3.71	---	---	---	---	---	---	---	---	---	---	---
4/26/2005			44.07	7.35	ND<50	ND<50	---	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	0.68
5/24/2005			44.29	7.13	---	---	---	---	---	---	---	---	---	---	---
6/27/2005			44.81	6.61	---	---	---	---	---	---	---	---	---	---	---
7/28/2005			42.10	9.32	---	---	---	---	---	---	---	---	---	---	---
8/25/2005			40.86	10.56	---	---	---	---	---	---	---	---	---	---	---
9/26/2005			39.26	12.16	---	---	---	---	---	---	---	---	---	---	---
10/24/2005			38.10	13.32	Measure DTW only										
11/17/2005			43.34	8.08	Measure DTW only										
12/8/2005			44.40	7.02	Measure DTW only										
1/25/2006			45.46	5.96	Measure DTW Only										
3/28/2006			46.29	5.13	ND<50	---	---	---	ND <0.50	ND <0.50	ND <0.50	ND <0.50	ND<3.0	---	1.89
MW-11	2-14	48.30													
5/20/1997			34.34	13.96	ND	---	---	---	ND	ND	ND	ND	---	---	---
7/29/1997			32.30	16.00	----- Insufficient amount of water to sample -----										
10/15/1997			32.45	15.85	----- Insufficient amount of water to sample -----										
1/20/1998			---	---	----- Well Inaccessible -----										
4/15/1998			---	---	----- Well Inaccessible -----										
5/14/1998			---	---	ND	**320**	---	---	ND	ND	ND	ND	---	---	---
7/28/1998			33.05	15.25	----- Insufficient amount of water to sample -----										
1/26/2000			37.89	10.41	ND<50	ND<50	ND<500	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-11 Continued															
5/3/2000			35.13	13.17	ND<50	ND<50	ND<170	---	ND<0.50	0.73	ND<0.50	ND<0.50	ND<3.0	---	---
8/3/2000		----- Insufficient amount of water to sample -----					----- Insufficient amount of water to sample -----								
10/11/2000		----- Insufficient amount of water to sample -----					----- Insufficient amount of water to sample -----								
1/4/2001		----- Insufficient amount of water to sample -----					----- Insufficient amount of water to sample -----								
4/12/2001			34.92	13.38	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	2.1
7/10/2001		----- Insufficient amount of water to sample -----					----- Insufficient amount of water to sample -----								
11/1/2001		----- Insufficient amount of water to sample -----					----- Insufficient amount of water to sample -----								
12/10/2001			35.45	12.85	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	5.4
3/28/2002			37.06	11.24	ND<50	ND<50	210	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	1.69
6/27/2002		----- Insufficient amount of water to sample -----					----- Insufficient amount of water to sample -----								
9/11/2002		----- Insufficient amount of water to sample -----					----- Insufficient amount of water to sample -----								
3/27/2003			40.69	7.61	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	3.7
9/23/2003		----- Insufficient amount of water to sample -----					----- Insufficient amount of water to sample -----								
3/23/2004			35.06	13.24	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	---
9/22/2004		----- Insufficient amount of water to sample -----					----- Insufficient amount of water to sample -----								
3/30/2005			39.58	8.72	---	---	---	---	---	---	---	---	---	---	---
4/26/2005			35.34	12.96	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
5/24/2005			35.67	12.63	---	---	---	---	---	---	---	---	---	---	---
6/27/2005			34.58	13.72	---	---	---	---	---	---	---	---	---	---	---
7/28/2005		----- Insufficient amount of water to sample -----													
8/25/2005			-----Dry -----						----- Dry -----						
9/26/2005			-----Dry -----						----- Dry -----						
10/24/2005			-----Dry -----												
11/17/2005			-----Dry -----												
12/8/2005			35.02	13.28	Measure DTW only										
1/25/2006			41.15	7.15	Measure DTW Only										
3/28/2006			37.92	10.38	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
MW-12		51.11													
5/20/1997			47.67	3.44	47,000	7,000	---	7.8	12,000	1,600	1,000	2,600	ND	---	---
7/29/1997			43.76	7.35	67,000	4,500	---	---	24,000	640	1,500	1,900	ND	---	4.0
10/15/1997			46.74	4.37	24,000	2,600	---	2.1	8,300	160	560	770	ND <500	---	4.0
1/20/1998			47.66	3.45	17	4,500	---	1.4	5,200	350	730	1,500	ND	---	3.0
4/15/1998			48.91	2.20	110,000	2,900	---	36	42,000	ND	1,800	ND	ND	---	---
4/15/98 (D)			duplicate sample		110,000	2,500	---	---	36,000	2,500	1,700	3,400	ND	---	---
7/28/1998			46.16	4.95	72,000	4,900	---	ND <5.0	23,000	830	1,700	2,200	ND <2.5	---	---
1/26/2000			49.17	1.94	12,000	410	ND<500	---	3,300	60	ND<5.0	52	ND<100	---	---
5/3/2000			47.50	3.61	32,000	ND<50	ND<170	---	17,000	380	610	880	ND<300	---	---
5/3/2000			duplicate sample		31,000	---	---	---	17,000	360	560	800	ND<150	---	---
8/3/2000			44.14	6.97	60,000	ND<50	ND<170	---	44,000	390	1200	417	ND<600	---	0.8
10/11/2000			43.83	7.28	84,000	ND<50	ND<170	---	52,000	300	1,300	130	ND<100	---	0.8
1/4/2001			46.94	4.17	85,000	270	ND<170	---	45,000	180	1,000	ND<100	ND<100	---	---
4/12/2001			48.37	2.74	15,000		ND<170	---	7,100	88	350	358	ND<20	---	0.6
						180 *w/ silica gel cleanup*									
7/10/2001			44.61	6.50	52,000	300	ND<170	---	41,000	250	1,100	318	ND<20	ND<20-400	0.6
11/1/2001			44.87	6.24	48,000	220	ND<170	---	50,000	190	700	321	ND<50	ND<20-400	---
12/10/2001			49.51	1.60	19,000	100	ND<170	---	7,900	62	150	138	ND<5.0	COD - 160000	0.2
3/28/2002			48.33	2.78	20,000	180	ND<170	---	6,300	42	82	64	ND<50	ND<50-1000	0.9
6/27/2002			46.22	4.89	19,000	480	ND<170	---	10,000	140	410	504	ND<4.0	ND<1-20	0.48
9/11/2002			43.01	8.10	91,000	200	ND<170	---	45,000	190	750	184	ND<50	ND<50-1000	---
12/6/2002			Well destroyed												

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-13		50.19													
5/20/1997			44.09	6.10	38,000	3,400	---	ND	8,900	2,600	1,200	2,000	ND	---	---
7/29/1997			45.19	5.00	37,000	3,200	---	---	7,400	1,700	1,300	1,400	ND	---	4.0
10/15/1997			43.59	6.60	27,000	2,700	---	3.8	7,600	1,300	1,300	1,000	ND <500	---	3.0
1/20/1998			46.79	3.40	25,000	2,200	---	2.3	6,000	2,400	1,200	910	ND	---	2.0
4/15/1998			44.54	5.65	26,000	2,400	---	8.6	5,200	2,500	1,100	1,400	ND	---	3.4
7/28/1998			42.59	7.60	18,000	2,200	---	ND <5.0	3,800	1,200	870	720	ND <2.5	---	3.0
1/26/2000			Well Not Found												
5/3/2000			43.95	6.24	2,800	ND<50	ND<170	---	440	210	180	234	ND<100	---	---
8/3/2000			40.31	9.88	14,000	ND<50	ND<170	---	1,800	560	770	580	ND<350	---	0.8
10/11/2000			39.69	10.50	13,000	ND<50	ND<170	---	1,900	290	760	356	14	---	1.2
1/4/2001			42.82	7.37	7,500	230	ND<170	---	620	350	320	294	4.7	---	---
4/12/2001			44.50	5.69	210	ND<50	ND<170	---	34	2.7	3.8	7.58	ND<0.50	---	1.3
7/10/2001			40.27	9.92	6,100	150	ND<170	---	580	230	300	281	ND<10	ND<10-200	1.0
11/1/2001			40.44	9.75	3,100	77	ND<170	---	610	52	120	68	ND<20	ND<1-60	---
12/10/2001			46.61	3.58	ND<50	ND<50	ND<170	---	0.93	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	---
3/28/2002			45.46	4.73	ND<50	ND<50	ND<170	---	2.2	ND<0.50	0.51	0.75	1.4	ND<1-20	1.0
6/27/2002			41.52	8.67	520	ND<50	ND<170	---	50	15	35	22.7	ND<1.0	ND<1-20	0.66
9/11/2002			38.64	11.55	2,800	100	ND<170	---	320	49	180	71.1	2.2	ND<1-20	2.22
12/9/2002			Well destroyed												
MW-14	6-15	47.89													
1/26/2000			38.00	9.89	ND<50	ND<50	ND<500	---	1.1	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
5/3/2000			36.27	11.62	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
8/3/2000			33.44	14.45					----- Insufficient amount of water to sample -----						
10/11/2000			33.30	14.59					----- Insufficient amount of water to sample -----						
1/4/2001			33.55	14.34					----- Insufficient amount of water to sample -----						
4/12/2001			36.01	11.88	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	1.3
7/10/2001			33.32	14.57					----- Insufficient amount of water to sample -----						
11/1/2001		----- Insufficient amount of water to sample -----							----- Insufficient amount of water to sample -----						
12/10/2001			33.34	14.55					----- Insufficient amount of water to sample -----						
3/28/2002			39.02	8.87	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	1.01
6/27/2002			33.32	14.57					----- Insufficient amount of water to sample -----						
9/11/2002			33.27	14.62					----- Insufficient amount of water to sample -----						
3/27/2003			42.11	5.78	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	3.4
9/23/2003			33.29	14.60	---	---	---	---	---	---	---	---	---	---	---
3/23/2004			37.28	10.61	ND<50	ND<50	ND<170	---	ND<0.50	0.68	ND<0.50	ND<0.50	ND<1.0	ND<1-10	---
9/22/2004		----- monitoring well can not be located -----			---	---	---	---	---	---	---	---	---	---	---
3/30/2005			41.79	6.10	---	---	---	---	---	---	---	---	---	---	---
4/26/2005			37.61	10.28	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
5/24/2005			38.19	9.70	---	---	---	---	---	---	---	---	---	---	---
6/27/2005			35.82	12.07	---	---	---	---	---	---	---	---	---	---	---
7/28/2005			33.49	14.40	---	---	---	---	---	---	---	---	---	---	---
8/25/2005			-----Dry -----						----- Dry -----						
9/26/2005			-----Dry -----						----- Dry -----						
10/24/2005			33.34	14.55	Measure DTW only										
11/17/2005			33.31	14.58	Measure DTW only										
12/8/2005			33.38	14.51	Measure DTW only										
1/25/2006			37.76	10.13	Measure DTW Only										
3/28/2006			40.74	7.15	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---

TABLE I: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-15	4.5-14	49.28													
1/26/2000			42.26	7.02	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
5/3/2000			39.12	10.16	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
8/3/2000			35.74	13.54	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
10/11/2000		----- Insufficient amount of water to sample -----							----- Insufficient amount of water to sample -----						
1/4/2001			35.03	14.25					----- Insufficient amount of water to sample -----						
4/12/2001			40.42	8.86	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	1.2
7/10/2001			35.58	13.70					----- Insufficient amount of water to sample -----						
11/1/2001		----- Insufficient amount of water to sample -----							----- Insufficient amount of water to sample -----						
12/10/2001			42.99	6.29	ND<50	ND<50	**270**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	1.8
3/28/2002			41.43	7.85	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	1.62
6/27/2002			36.76	12.52					----- Insufficient amount of water to sample -----						3.1
9/11/2002			34.83	14.45					----- Insufficient amount of water to sample -----						
1/31/2003			---	---	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	4.6
3/26/2003			46.68	2.60	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	3.8
6/19/2003			37.88	11.40	ND<50	---	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	4.2
9/24/2003			35.18	14.10					----- Well not sampled -----						
12/18/2003			42.47	6.81	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	na
3/23/2004			40.55	8.73	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	---
6/29/2004			35.58	13.70					----- Insufficient amount of water to sample -----						
9/23/2004			---	---					----- Insufficient amount of water to sample -----						
12/14/2004			---	---	---	---	---	---	---	---	---	---	---	---	---
4/27/2005			---	---	---	---	---	---	---	---	---	---	---	---	---
6/20/2005				Well is obstructed, unable to sample											
9/29/2005				Well is obstructed, unable to sample											
12/28/2005			47.44	1.84	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
MW-16	3-14.5	48.88													
1/26/2000			41.51	7.37	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
5/3/2000			36.77	12.11	ND<50	ND<50	ND<170	---	**3**	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
8/3/2000			34.47	14.41					----- Insufficient amount of water to sample -----						
10/11/2000			34.43	14.45					----- Insufficient amount of water to sample -----						
1/4/2001			34.61	14.27					----- Insufficient amount of water to sample -----						
4/12/2001			38.33	10.55	ND<50	ND<50	ND<170	---	**6**	ND<0.50	ND<0.50	ND<0.50	ND<0.50	---	1.1
7/10/2001			34.39	14.49					----- Insufficient amount of water to sample -----						
11/1/2001			34.39	14.49					----- Insufficient amount of water to sample -----						
12/10/2001			41.86	7.02	ND<50	ND<50	**340**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
3/28/2002			40.48	8.40	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	0.80
6/27/2002			34.33	14.55					----- Insufficient amount of water to sample -----						
9/11/2002			34.26	14.62					----- Insufficient amount of water to sample -----						
1/31/2003			42.93	5.95	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	2.6
3/27/2003			43.20	5.68	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	2.55
6/19/2003			35.73	13.15	ND<50	---	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	4.4
9/24/2003			34.29	14.59					----- Well not sampled -----						
12/18/2003			41.40	7.48	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	na
3/23/2004			38.01	10.87	**95**	ND<50	ND<170	---	**0.77**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	---
6/29/2004			---	---					----- Insufficient amount of water to sample -----						
9/23/2004			34.38	14.50					----- Insufficient amount of water to sample -----						
12/14/2004			37.43	11.45	**93**	ND<50	---	---	**8.3**	**1.1**	**0.52**	**0.73**	ND<7.0	**Iron = 270**	---
4/27/2005			36.81	12.07	ND<50	ND<50	---	---	**1.6**	**0.66**	ND<0.50	ND<0.50	ND<3.0	---	---
6/20/2005				Well is obstructed, unable to sample											
9/29/2005				Well is obstructed, unable to sample											
12/28/2005			45.74	3.14	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-17S	15.5-18	30.92													
10/1/2001		----- Insufficient amount of water to sample -----							----- Insufficient amount of water to sample -----						
11/1/2001		----- Insufficient amount of water to sample -----							----- Insufficient amount of water to sample -----						
12/10/2001			27.84	3.08	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	4.7
3/28/2002			27.94	2.98	ND<50	ND<50	**720**	---	ND<0.50	ND<0.50	ND<0.50	**0.50**	ND<1.0	ND<1-20	2.49
6/27/2002			18.23	12.69	---	---	---		----- Insufficient amount of water to sample -----				---	---	---
9/11/2002		----- Insufficient amount of water to sample -----							----- Insufficient amount of water to sample -----						
3/27/2003			28.25	2.67	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-20	4.6
9/23/2003		----- Insufficient amount of water to sample -----							----- Insufficient amount of water to sample -----						
12/18/2003															
3/23/2004			27.18	3.74	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	---
9/22/2004		----- Insufficient amount of water to sample -----							----- Insufficient amount of water to sample -----						
4/26/2005			27.45	3.47	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
9/27/2005			15.40	15.52	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
3/28/2006			28.01	2.91	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
MW-17D	22.5-27.5	30.82													
10/1/2001			14.38	16.44	ND<50	**120**	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---
11/1/2001			14.42	16.40	ND<50	ND<50	**820**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---
12/10/2001			23.09	7.73	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	6.4
3/28/2002			21.79	9.03	ND<50	ND<50	**1,800**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.18
6/27/2002			16.62	14.20	ND<50	ND<50	**310**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	9.9
9/11/2002			14.45	16.37	ND<50	ND<50	**360**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	3.46
3/27/2003			23.25	7.57	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	4.7
9/23/2003			15.32	15.50	ND<50	ND<50	**1,400**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	1.48
3/23/2004			21.26	9.56	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	---
9/22/2004			14.85	15.97	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
3/30/2005			23.34	7.48	---	---	---	---	---	---	---	---	---	---	---
4/26/2005			22.49	8.33	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
5/24/2005			21.49	9.33	---	---	---	---	---	---	---	---	---	---	---
6/27/2005			20.25	10.57	---	---	---	---	---	---	---	---	---	---	---
7/28/2005			16.91	13.91	---	---	---	---	---	---	---	---	---	---	---
8/25/2005			16.27	14.55	---	---	---	---	---	---	---	---	---	---	---
9/27/2005			16.24	14.58	---	---	---	---	---	---	---	---	---	---	---
10/24/2005			17.43	13.39	Measure DTW Only										
11/17/2005			19.62	11.20	Measure DTW Only										
12/8/2005			21.15	9.67							Measure DTW only				
1/25/2006			25.85	4.97	Measure DTW Only										
3/28/2006			24.19	6.63	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-18	18.5-21.5	30.82													
10/1/2001			14.31	16.51	**110**	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**DIPE = 270**	---
11/1/2001			12.93	17.89	**130**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**DIPE = 340**	---
12/10/2001		-------Standing water-------						-------Standing water-------							
3/28/2002			26.22	4.6	**140**	ND<50	**360**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**DIPE = 190**	0.84
6/27/2002			16.04	14.78	**110**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**DIPE = 200**	2.6
9/11/2002			13.57	17.25	**120**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**DIPE = 230**	3.41
3/27/2003		-------Standing water-------						-------Standing water-------							
9/23/2003			13.98	16.84	**140**	ND<50	**230**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**DIPE = 160** All others ND<1.0-20	---
3/23/2004			26.10	4.72	**66**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**DIPE = 99** All others ND<1.0-10	---
9/22/2004			13.64	17.18	**310**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
3/30/2005		Well inaccessible								Well inaccessible					
4/26/2005		Well inaccessible								Well inaccessible					
5/24/2005		Well inaccessible								Well inaccessible					
6/27/2005			18.07	12.75	**240**	**52**	ND<170	---	ND<0.50	ND<2.0	ND<0.50	ND<2.0	ND<3.0	---	---
7/28/2005			17.40	13.42	**250**	**60**	---	---	ND<0.50	ND<0.50	ND<0.50	ND<1.5	ND<3.0	---	---
8/25/2005			15.03	15.79	**260**	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
9/27/2005			14.10	16.72	**250**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
10/24/2005			18.33	12.49	**330**	ND<50	---	---	**1.4**	**23**	**3.6**	**15.8**	ND<1.0	---	---
11/17/2005		Well inaccessible									Well inaccessible				
12/8/2005		Well inaccessible									Well inaccessible				
1/25/2006		Well inaccessible									Well inaccessible				
3/28/2006		Well inaccessible									Well inaccessible				
MW-19	22.5-25	31.56													
10/1/2001			13.23	18.33	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---
11/1/2001			13.50	18.06	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---
12/10/2001			10.24	21.32	ND<50	ND<50	**660**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	1.5
3/28/2002			18.07	13.49	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.53
6/27/2002			13.62	17.94	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	5.9
9/11/2002			13.21	18.35	ND<50	ND<50	**210**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.97
1/31/2003			28.16	3.40	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	6.7
3/27/2003			29.59	1.97	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	4.71
6/19/2003			15.70	15.86	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	8.3
9/24/2003			13.59	17.97	**79**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---
12/18/2003			19.23	12.33	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	na
3/23/2004			17.31	14.25	**140**	ND<50	**190**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	---

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-19 Cont'd															
6/30/2004			13.82	17.74	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-10	---
9/23/2004			13.19	18.37	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
12/14/2004			22.33	9.23	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	**Iron = 200**	---
4/27/2005			17.71	13.85	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
6/20/2005			19.06	12.50	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
9/29/2005			13.58	17.98	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
12/28/2005		-------Standing water-------			-------Standing water-------										
MW-20	15.5-19.5	30.69													
10/1/2001			13.46	17.23	ND<50	ND<50	**690**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**2.7**	ND<1.0-20	---
11/1/2001			13.25	17.44	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.0**	ND<1.0-20	---
12/10/2001			24.72	5.97	ND<50	ND<50	**510**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2
3/28/2002			26.47	4.22	ND<50	ND<50	**380**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	1.73
6/27/2002			15.41	15.28	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.8
9/11/2002			---	---	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**2.8**	ND<1.0-20	4.61
1/31/2003			26.19	4.50	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	3.5
3/27/2003			27.61	3.08	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.25
6/19/2003			17.12	13.57	ND<50	ND<50	**210**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**4.2**	ND<1.0-20	4.1
9/24/2003			13.76	16.93	ND<50	ND<50	ND<170		ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.7**	ND<1.0-20	---
12/18/2003			25.65	5.04	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	na
3/23/2004			20.42	10.27	**320**	ND<50	**180**	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	---
6/30/2004			14.94	15.75	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**4.1**	ND<1-10	---
9/23/2004			13.15	17.54	ND<50	**180**	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**4.6**	---	---
12/14/2004			16.23	14.46	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	**Iron = 6600**	---
4/27/2005			20.73	9.96	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
6/20/205			25.07	5.62	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
9/29/2005			13.91	16.78	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**5.2**	---	---
12/28/2005		-------Standing water-------			-------Standing water-------										
MW-21	10-12	50.99													
3/28/2002			50.99	5.97	**1,200**	**190**	ND<170	---	**11**	ND<0.50	**1.0**	**0.80**	ND<1.0	ND<1-20	0.94
6/27/2002			45.02	8.79	**840**	**170**	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.14
9/11/2002		----- Insufficient amount of water to sample -----				---	---	---	---	---	---	---	---	---	---
3/27/2003			46.52	4.47	**230**	**91**	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	3.27
9/23/2003			41.11	9.88	**190**	**150**	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---
3/23/2004			44.04	6.95	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	---
9/22/2004		----- Insufficient amount of water to sample -----			----- Insufficient amount of water to sample -----										
4/26/2005			44.30	6.69	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.4
9/27/2005			40.97	10.02	**50**	**110**	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
3/28/2006			45.67	5.32	ND<50	**52**	ND<170	---	**0.89**	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.40
MW-22		50.52													
3/28/2002			---	---	ND<50	*	*	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	1.59
6/27/2002			41.73	8.79	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.64
9/11/2002			---	---	---	---	---	---	---	---	---	---	---	---	---
3/27/2003			---	---	---	---	---	---	---	---	---	---	---	---	---
9/23/2003			---	---	---	---	---	---	---	---	---	---	---	---	---
3/23/2004		----- monitoring well can not be located -----													---

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-23	5-10	53.98													
1/31/2003			50.42	3.56	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**35**	**TAME=18** All others ND	3.32
3/25/2003			49.66	4.32	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**36**	**TAME=16** All others ND	2.90
6/19/2003		----- Insufficient amount of water to sample -----				---	---	---	---	---	---	---	---	---	---
9/24/2003			44.71	9.27	**97**	ND<50	ND<170	---	ND<0.50	**1.1**	ND<0.50	0.66	ND<8.0	**TAME=1.6** All others ND	---
12/18/2003			49.68	4.30	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**4.6**	ND<1.0-20	0.82
3/23/2004			48.03	5.95	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.39
6/29/2004			46.63	7.35	**77**	ND<50	ND<170	---	**0.54**	**1.9**	**0.81**	**1.2**	ND<1.0	ND<1-10	0.68
9/23/2004			44.18	9.80				----- Insufficient amount of water to sample -----							
12/14/2004			48.56	5.42	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	ND<100	---
4/27/2005			48.08	5.90	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.58
6/20/2005			48.82	5.16	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	5.76
9/29/2005		----- Insufficient amount of water to sample -----													
12/28/2005			53.56	0.42	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	2.79
MW-24	5-10	54.40													
1/31/2003			50.83	3.57	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.7**	ND<1.0-20	2.55
3/25/2003			51.03	3.37	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**8.8**	ND<1.0-20	2.87
6/19/2003			47.84	6.56	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**5.8**	ND<1.0-20	4.2
9/24/2003			45.19	9.21	ND<50	ND<50	ND<170	---	ND<0.50	**7.0**	ND<0.50	ND<0.50	**1.8**	ND<1.0-20	---
12/18/2003			50.76	3.64	ND<50	ND<50	ND<170	---	**4.5**	ND<0.50	ND<0.50	ND<0.50	**10.0**	ND<1.0-20	
3/23/2004			48.93	5.47	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.61
6/29/2004			48.61	5.79	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.78
9/23/2004			44.93	9.47	ND<50	ND<170	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
12/14/2004			48.82	5.58	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	ND<100	---
4/27/2005			48.82	5.58	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.41
6/20/2005			49.84	4.56	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	8.05
9/29/2005		----- Insufficient amount of water to sample -----													
12/28/2005			53.91	0.49	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	5.62
MW-25	5-10	55.91													
1/31/2003			53.93	1.98	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.82
3/25/2003			54.48	1.43	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.5
6/19/2003			52.16	3.75	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	1.38
9/24/2003			49.20	6.71	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	0.15
12/18/2003			54.25	1.66	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	0.64
3/23/2004			53.20	2.71	**120**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.24
6/29/2004			50.80	5.11	**69**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.70
9/23/2004			47.39	8.52	**56**	ND<50	---	---	ND<1.0	ND<1.0	ND<0.50	ND<0.50	ND<3.0	---	0.59
12/14/2004			53.27	2.64	**470**	ND<50	---	---	**5.3**	**6.2**	ND<0.50	ND<0.50	ND<12	**Iron = 15,000**	0.37
4/27/2005			53.59	2.32	**230**	ND<50	---	---	ND<1.5	ND<5.0	ND<0.50	ND<0.50	ND<3.0	---	0.70
6/20/2005			53.65	2.26	**160**	ND<50	---	---	ND<1.0	ND<4.0	ND<0.50	ND<0.50	ND<3.0	---	0.34
9/29/2005			47.92	7.99	**88**	ND<50	---	---	ND<0.50	ND<2.0	ND<0.50	ND<0.50	ND<3.0	---	0.59
12/28/2005			55.11	0.80	**160**	**55**	---	---	ND<0.50	ND<3.5	ND<0.50	ND<0.50	ND<3.0	---	0.35

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-26	5-10	54.74													
1/31/2003			50.51	4.23	ND<50	ND<50	ND<170	---	**0.98**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	**TBA=30** All others ND	4.68
2/10/2003			50.90	3.84	ND<50	ND<50	ND<170	---	**12**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.5
3/27/2003			53.26	1.48	ND<50	**51**	ND<170	---	**5.4**	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	3.24
9/23/2003			45.43	9.31	**690**	---	---	---	**2.1**	**0.53**	**0.54**	ND<0.50	ND<1.0	ND<1.0-20	---
3/23/2004			49.49	5.25	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.59
9/22/2004			45.48	9.26	ND<50	**420**	**920**	---	**1.3**	**0.65**	ND<0.50	ND<0.50	ND<3.0	---	---
4/26/2005			49.83	4.91	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.59
9/27/2005			45.49	9.25	ND<50	---	---	---	**1.1**	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	---
3/28/2006			51.57	3.17	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	1.81
MW-27	5-10	54.30													
1/31/2003			49.83	4.47	**4,400**	**150**	ND<170	---	**900**	**10**	**0.61**	**29.3**	ND<10	**TBA=22** All others ND	3.59
3/26/2003			52.87	1.43	**3,800**	**160**	ND<170	---	**1,100**	**8.2**	**25**	**14.2**	ND<10	ND<1.0-20	2.85
6/19/2003			48.98	5.32	**12,000**	**280**	ND<170	---	**3,800**	**28**	**87**	**38.7**	ND<10	**TBA=25** All others ND	1.41
9/24/2003			48.11	6.19	**11,000**	**270**	ND<170	---	**4,700**	**26**	**72**	**26.8**	ND<10	ND<1.0-20	0.40
12/18/2003			50.38	3.92	**4,600**	**130**	ND<170	---	**3,100**	**15**	**42**	**12.9**	ND<10	ND<1.0-20	0.64
3/23/2004			50.38	3.92	**6,800**	**160**	ND<170	---	**2,300**	**12**	**19**	**10.6**	ND<12	ND<1.0-35	0.97
6/29/2004			48.80	5.50	**5,800**	**270**	ND<170	---	**2,600**	**18**	**32**	**16.8**	ND<8.0	ND<1.0-30	0.41
7/20/2004			48.07	6.23	**2,700**	ND<50	---	---	**810**	**17**	**12**	ND<5.0	ND<3.0	---	0.57
8/24/2004			47.40	6.90	**3,700**	**110**	---	---	**960**	**17**	**24**	**7.2**	ND<30	---	1.38
9/23/2004			46.47	7.83	**2,000**	**130**	---	---	**280**	**15**	**11**	**6.0**	ND<40	**F-Hyde = 14** **A-Hyde = 11** Cr = ND<10	2.15
10/21/2004			48.43	5.87	**1,100**	**89**	---	---	**170**	**8.2**	**16**	ND<6.0	**10**	---	0.90
11/16/2004			49.34	4.96	**1,100**	**120**	---	---	**150**	ND<14	**8.7**	**5.1**	ND<25	---	0.55
12/14/2004			49.03	5.27	**1,100**	**100**	---	---	**170**	**8.2**	**14**	**3.2**	ND<20	**Iron = 14,000**	0.45
1/11/2005			48.52	5.78	**1,300**	**98**	---	---	**310**	**7.6**	**9.9**	ND<6.0	ND<25	**16,000**	0.40
2/15/2005			49.65	4.65	**990**	**91**	---	---	**60**	ND<10	**7.4**	ND<5.0	ND<20	---	0.48
3/30/2005			49.95	4.35	**1,300**	**80**	---	---	**300**	**7.9**	**6.8**	**3.5**	ND<30	---	0.49
4/27/2005			49.80	4.50	**1,100**	**92**	---	---	**250**	**5.7**	**8.2**	**2.5**	ND<20	---	0.34
5/24/2005			49.38	4.92	**820**	**85**	---	---	**280**	**4.9**	**6.1**	**2.06**	ND<15	---	0.43
6/20/2005			51.58	2.72	**500**	ND<50	---	---	**56**	ND<5.0	**2.6**	**2.38**	ND<7.0	---	0.31
8/11/2005			48.51	5.79			Intrinsics Only								0.64
8/30/2005			47.74	6.56			Intrinsics Only								0.64
9/29/2005			46.66	7.64	**880**	**110**	---	---	**12**	ND<10	**8.3**	ND<1.5	ND<10	---	0.92
10/24/2005			46.94	7.36			Measure DTW							Dissolved Metals= ND<10-20	
11/17/2005			49.92	4.38			Intrinsics Only								6.47
12/29/2005			54.00	0.30	ND<50	ND<50	---	---	**0.94**	ND<0.50	ND<0.50	ND<0.50	ND<3.0	Dissolved Metals= ND<10-20, Bromate=ND<10	3.73
1/25/2006			51.74	2.56			Intrinsics Only								0.81

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-28	5-10	54.61													
1/31/2003			47.31	7.30	10,000	120	ND<170	---	4,800	14	30	61.9	ND<10	ND<1.0-20	4.16
3/26/2003			53.04	1.57	13,000	470	ND<170	---	6,100	24	10	81.8	ND<10	ND<1.0-20	2.81
6/19/2003			49.80	4.81	13,000	520	ND<170	---	9,700	29	56	45.5	6.8	**TBA=24** All others ND	1.62
9/24/2003			47.68	6.93	23,000	250	ND<170	---	11,000	33	49	41.6	ND<12	ND<1.0-20	0.45
12/18/2003			52.13	2.48	21,000	470	ND<170	---	8,900	60	170	98.0	ND<6	ND<1.0-20	---
3/23/2004			50.54	4.07	18,000	150	ND<170	---	9,600	27	15	24	ND<16	ND<1.0-45	0.49
6/29/2004			49.36	5.25	15,000	210	ND<170	---	7,600	48	61	46.2	ND<7.0	ND<1.0-20	0.43
7/20/2004			48.16	6.45	10,000	76	---	---	4,800	28	31	15	ND<30	---	0.63
8/24/2004			46.88	7.73	15,000	180	---	---	6,100	43	46	21	ND<100	---	1.67
9/23/2004			45.87	8.74	9,400	82	---	---	4,700	34	40	18	ND<80	**F-Hyde = 11** A-Hyde = ND<5.0 Cr = ND<10	---
10/21/2004			49.43	5.18	130	ND<50	---	---	53	ND<0.50	0.90	0.61	ND<3.0	---	1.45
11/16/2004			50.54	4.07	980	71	---	---	500	3.6	4.4	3.2	ND<13	---	0.70
12/14/2004			51.71	2.90	1,000	70	---	---	350	5.1	7.0	3.8	ND<20	**Iron = 3,200**	0.45
1/11/2005			53.05	1.56	760	84	---	---	150	4.9	7.6	3.3	ND<20	**Iron = 2,900**	0.39
2/15/2005			52.45	2.16	640	75	---	---	94	3.3	6.2	2.4	ND<15	---	0.46
3/30/2005			51.39	3.22	780	81	---	---	100	4.2	8.5	1.7	ND<20	---	0.51
4/27/2005			51.02	3.59	620	97	---	---	58	2.9	6.7	0.84	ND<10	---	0.89
5/24/2005			51.66	2.95	570	76	---	---	93	3.4	8.6	2.3	ND<16	---	0.33
6/20/2005			51.96	2.65	430	100	---	---	48	ND<3.0	4.2	ND<2.0	ND<8.0	---	0.37
8/11/2005			49.46	5.15			Intrinsics Only								0.44
8/30/2005			46.50	8.11			Intrinsics Only								2.56
9/29/2005			46.60	8.01	210	ND<50	---	---	23	0.74	1.4	0.62	ND<3.0	---	5.79
10/24/2005			46.42	8.19			Measure DTW							Dissolved Metals= ND<10-20	
11/17/2005			49.82	4.79			Intrinsics Only								5.24
12/29/2005			54.03	0.58	86	56	---	---	2.6	ND<0.50	ND<0.50	ND<0.50	ND<3.0	Dissolved Metals= ND<10-20, Bromate=ND<10	0.90
1/25/2006			52.08	2.22			Intrinsics Only								0.78
MW-29	5-10	55.84													
1/31/2003			54.84	1.00	130	130	ND<170	---	18	1.0	4.1	3.65	ND<1.0	ND<1.0-20	2.8
3/25/2003			54.70	1.14	90	ND<50	ND<170	---	4.8	ND<0.50	6.2	1.4	ND<1.0	ND<1.0-20	3.89
6/19/2003			52.32	3.52	130	59	ND<170	---	8.2	ND<0.50	6.9	ND<0.50	ND<1.0	ND<1.0-20	4.7
9/24/2003			49.25	6.59	2,400	140	ND<170	---	840	25	120	14.2	ND<1.0	ND<1.0-20	0.54
12/18/2003			54.32	1.52	400	ND<50	ND<170	---	110	3.4	15	5.1	ND<1.0	ND<1.0-20	0.47
3/23/2004			53.39	2.45	63	ND<50	ND<170	---	2.4	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.16
6/29/2004			51.09	4.75	230	ND<50	ND<170	---	80	1.4	3.4	0.79	ND<3.0	---	1.59
9/23/2004			48.60	7.24	3,400	84	---	---	1,900	29	16	20	ND<35	---	0.51
12/14/2004			53.03	2.81	ND<49	ND<50	---	---	0.69	ND<0.50	ND<0.50	ND<0.50	ND<30	ND<100	4.05
4/27/2005			53.64	2.20	ND<50	210	---	---	1.1	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.99
6/20/2005			53.52	2.32	ND<50	910	---	---	21	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.20
9/29/2005			49.04	6.80	450	180	---	---	100	1.9	1.7	0.89	ND<3.0	---	3.10
12/29/2005			55.40	0.44	ND<50	160	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	33.32

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-30	5-10	55.09													
1/31/2003			50.99	4.10	48,000	570	ND<170	---	13,000	210	2,000	1,810	ND<1.0	ND<1.0-20	2.6
3/26/2003			54.77	0.32	33,000	430	ND<170	---	13,000	150	1,200	714	ND<50	ND<50-1,000	2.69
6/19/2003			51.68	3.41	29,000	710	ND<170	---	12,000	150	1,300	753	ND<4.0	ND<1.0-20	2.2
9/24/2003			48.08	7.01	34,000	550	ND<170	---	14,000	150	540	416	ND<50	ND<50-1,000	1.14
12/18/2003			53.56	1.53	39,000	220	ND<170	---	16,000	140	790	523	ND<50	ND<50-1,000	0.52
3/23/2004			52.68	2.41	23,000	170	ND<170	---	7,600	110	830	409	ND<4.0	ND<1-10	0.22
6/29/2004			50.47	4.62	29,000	860	ND<170	---	10,000	250	880	507	ND<360	---	0.79
7/20/2004			49.32	5.77	31,000	280	---	---	9,400	230	840	437	ND<300	---	0.57
8/24/2004			47.62	7.47	33,000	310	---	---	10,000	190	630	273	ND<300	---	1.30
9/23/2004			46.60	8.49	20,000	370	---	---	6,200	150	470	576	ND<300	**F-Hyde = 59** **A-Hyde = 32** Cr = ND<10	---
10/21/2004			50.57	4.52	31,000	590	---	---	9,100	300	1,400	870	ND<300	---	0.32
11/16/2004			51.04	4.05	30,000	740	---	---	9,200	320	2,000	930	ND<300	---	0.58
12/14/2004			52.41	2.68	26,000	840	---	---	7,300	270	1,300	810	ND<300	**Iron = 21,000**	---
1/11/2005			54.36	0.73	25,000	600	---	---	8,100	310	1,200	920	ND<300	**Iron = 17,000**	0.22
2/15/2005			53.84	1.25	22,000	770	---	---	6,100	200	890	670	ND<300	---	0.41
3/30/2005			54.52	0.57	18,000	580	---	---	5,600	180	800	590	ND<300	---	0.43
4/27/2005			52.94	2.15	19,000	530	---	---	4,500	180	680	532	ND<300	---	0.19
5/24/2005			52.98	2.11	12,000	830	---	---	3,100	150	530	400	ND<300	---	0.31
6/20/2005			53.09	2.00	14,000	560	---	---	3,900	150	570	463	ND<150	---	0.32
8/11/2005			49.85	5.24			Intrinsics Only								0.31
8/30/2005			49.06	6.03			Intrinsics Only								0.38
9/29/2005			47.60	7.49	4,700	270	---	---	1,900	31	51	45	ND<30	---	0.36
10/24/2005			47.48	7.61			Measure DTW							Dissolved Metals= ND<10-20	
11/23/2005			50.74	4.35			Intrinsics Only								0.80
12/29/2005			54.66	0.43	5,600	230	---	---	3,300	24	23	96	ND<30	Dissolved Metals= ND<10-20, Bromate=ND<50	0.37
1/25/2006			52.66	1.64			Intrinsics Only								0.63
MW-31	16.5-18	54.61													
1/31/2003			49.96	4.65	3,800	650	300	---	1,000	9.0	2.3	3.9	ND<1.0	ND<1.0-20	5.05
3/27/2003			52.21	2.40	3,200	1,100	500	---	910	9.7	3.2	3.33	ND<1.0	ND<1.0-20	3.75
9/23/2003			44.78	9.83	7,900	270	ND<170	---	800	9.4	3.3	5.5	ND<1.0	ND<1.0-20	0.0
3/23/2004			49.27	5.34	2,700	210	ND<170	---	840	6.7	ND<0.50	4.5	ND<1.0	ND<1-10	0.55
9/22/2004			42.89	11.72	3,200	190	ND<170	---	940	24	6.9	7.5	ND<30	---	0.30
3/30/2005			52.49	2.12	1,100	82	ND<170	---	240	ND<20	ND<5.0	ND<5.0	ND<8.0	---	0.44
4/26/2005			49.65	4.96	1,000	83	---	---	270	7.9	ND<5.0	ND<5.0	ND<7.0	---	0.49
5/1/2405			49.67	4.94	1,500	140	ND<170	---	330	ND<20	ND<6.0	ND<6.0	ND<10	---	0.30
6/27/2005			48.51	6.10	860	110	ND<170	---	190	ND<10	ND<4.0	ND<3.0	ND<6.0	---	0.59
7/28/2005			47.30	7.31	980	140	---	---	210	6.3	ND<3.0	ND<3.0	ND<6.0	---	0.64
8/25/2005			45.86	8.75	110	ND<50	---	---	48	ND<2.0	ND<0.50	ND<1.0	ND<3.0	---	0.64
9/26/2005			44.31	10.30	210	52	ND<170	---	86	0.72	ND<0.50	ND<0.50	ND<1.0	ND<1.0-40	0.60
10/24/2005			43.37	11.24	1,400	84	---	---	260	15	3.4	11.6	ND<1.0	ND<1.0-10	0.28
11/17/2005			46.02	8.59	1,100	110	---	---	240	3.6	1.1	1.4	ND<1.0	ND<1.0-10	0.62
12/8/2005			48.31	6.30	1,100	140	---	---	200	3.0	0.96	1.2	ND<1.0	ND<1.0-10	0.36
1/25/2006			51.16	3.45	790	100	---	---	140	1.9	0.66	0.92	ND<1.0	ND<1.0-10	0.16
3/28/2006			51.50	3.11	590	ND<50	ND<170	---	86	1.5	0.69	1.0	ND<1.0	---	0.46

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-32	14-15.5	54.63													
1/31/2003			47.67	6.96	**4,800**	**91**	ND<170	---	**1,500**	**12**	**1.6**	**5.2**	ND<1.0	ND<1.0-20	4.38
3/27/2003			52.21	2.42	**2,900**	**110**	ND<170	---	**930**	**9.3**	**1.0**	**2.8**	ND<1.0	ND<1.0-20	2.74
9/23/2003			44.78	9.85	**3,500**	**120**	**180**	---	**620**	**7.0**	**2.4**	**3.46**	ND<1.0	ND<1.0-20	0.00
3/23/2004			49.26	5.37	**1,100**	**53**	ND<170	---	**430**	**2.3**	**0.70**	**0.51**	ND<1.0	ND<1.0-20	0.78
9/22/2004			41.95	12.68	**1,400**	**72**	ND<170	---	**450**	ND<15	**4.0**	ND<12.5	ND<10	---	0.30
3/30/2005			52.14	2.49	**2,000**	**160**	ND<170	---	**680**	**13.0**	ND<10	ND<15.0	ND<20	---	0.32
4/26/2005			50.34	4.29	**2,400**	**150**	---	---	**630**	**15**	ND<12	ND<12	ND<20	---	0.57
5/24/2005			49.29	5.34	**2,100**	**170**	ND<170	---	**640**	**13**	ND<10	ND<10	ND<20	---	0.36
6/27/2005			47.71	6.92	**1,900**	**160**	ND<170	---	**600**	**12**	ND<10	ND<10	ND<20	---	0.52
7/28/2005			47.16	7.47	**2,600**	**190**	---	---	**590**	**15**	ND<10	ND<10	ND<6.0	---	0.28
8/25/2005			46.02	8.61	**1,600**	**140**	---	---	**470**	**11**	ND<10	ND<10	ND<12	---	0.41
9/27/2005			44.57	10.06	**2,500**	**140**	ND<170	---	**550**	**9.1**	**2.8**	**5.3**	ND<1.0	ND<1.0-40	0.61
10/24/2005			42.25	12.38	**1,600**	**260**	---	---	**530**	**6.2**	**1.7**	**3.92**	ND<1.0	**TBA= 30** ND<1.0-10	0.42
11/17/2005			44.95	9.68	**2,100**	**110**	---	---	**490**	**7.9**	**2.3**	**3.98**	ND<1.0	ND<1.0-10	0.35
12/8/2005			47.49	7.14	**2,000**	**190**	---	---	**450**	**7.2**	**2.0**	**3.56**	ND<1.0	ND<1.0-10	0.35
1/25/2006			50.33	4.30	**2,000**	**150**	---	---	**430**	**7.2**	**2.0**	**3.66**	ND<1.0	ND<1.0-10	0.28
3/28/2006			50.81	3.82	**1,900**	**100**	ND<170	---	**380**	**6.5**	**1.9**	**3.6**	ND<1.0	---	0.56
MW-33	14-17.5	55.79													
1/31/2003			51.24	4.55	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	5.0
3/25/2003			54.39	1.40	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	2.99
6/19/2003			52.16	3.63	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	0.00
9/24/2003			49.20	6.59	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	0.00
12/18/2003			54.24	1.55	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---
3/23/2004			53.21	2.58	**88**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1-10	0.21
6/29/2004			50.78	5.01	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	0.63
9/23/2004			47.36	8.43	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.26
12/14/2004			53.46	2.33	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	**Iron = 1,300**	0.41
4/27/2005			53.56	2.23	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.62
6/20/2005			53.62	2.17	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.31
9/29/2005			48.85	6.94	ND<50	ND<50	---	---	**2.3**	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.12
12/29/2005			55.18	0.61	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<3.0	---	0.46
MW-34	14-18	54.07													
1/31/2003			49.07	5.00	**15,000**	**120**	ND<170	---	**690**	**970**	**110**	**1,090**	ND<25	**TAME=22** All others ND	4.3
3/25/2003			49.02	5.05	**14,000**	**190**	ND<170	---	**380**	**580**	**440**	**730**	ND<40	**TAME=10** All others ND	3.41
6/19/2003			46.17	7.90	**4,500**	**320**	ND<170	---	**300**	**200**	**260**	**242**	ND<40	**TAME=9.1** All others ND	3.6
9/24/2003			42.40	11.67	**8,200**	**360**	ND<170	---	**450**	**76**	**360**	**197**	ND<16	**TAME=2.5** All others ND	1.08
12/18/2003			48.56	5.51	**9,100**	**200**	ND<170	---	**400**	**320**	**380**	**350**	ND<10	**TAME=1.7** All others ND	0.62
3/23/2004			47.18	6.89	**9,100**	**240**	ND<170	---	**460**	**230**	**400**	**295**	ND<12	**TAME=1.7** All others ND<1.0-10	0.92
6/29/2004			46.62	7.45	**11,000**	**530**	ND<170	---	**540**	**200**	**640**	**505**	ND<300	---	0.56
7/20/2004			43.54	10.53	**9,100**	**230**	---	---	**490**	**120**	**380**	**220**	ND<300	---	0.57
8/24/2004			42.35	11.72	**11,000**	**320**	---	---	**490**	**84**	**390**	**248**	ND<400	---	1.97

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-34 Cont'd															
9/23/2004			41.79	12.28	**7,700**	**250**	---	---	**390**	**63**	**200**	**118**	ND<350	**F-Hyde = 10** **A-Hyde = 8.5** Cr = ND<10	0.96
10/21/2004			46.53	7.54	**8,200**	**260**	---	---	**260**	**99**	**160**	**410**	ND<300	---	0.59
11/16/2004			47.82	6.25	**8,500**	**340**	---	---	**250**	**110**	**170**	**438**	ND<300	---	0.48
12/14/2004			47.58	6.49	**4,100**	**260**	---	---	**160**	**73**	**130**	**200**	ND<170	**Iron = 3,500**	---
1/11/2005			51.26	2.81	**5,300**	**380**	---	---	**170**	**69**	**130**	**295**	ND<180	**Iron = 3,900**	0.39
2/15/2005			48.61	5.46	**3,400**	**310**	---	---	**120**	**39**	**120**	**167**	ND<100	---	0.37
3/30/2005			51.43	2.64	**5,500**	**190**	---	---	**95**	**58**	**120**	**255**	ND<180	---	0.54
4/27/2005			47.38	6.69	**4,200**	**290**	---	---	**74**	**41**	**110**	**179**	ND<100	---	0.51
5/24/2005			47.65	6.42	**5,000**	**450**	---	---	**82**	**52**	**150**	**241**	ND<180	---	0.42
6/20/2005			48.22	5.85	**8,500**	**570**	---	---	**59**	**64**	**130**	**366**	ND<150	---	0.37
8/11/2005			44.73	9.34			Intrinsics Only								0.48
8/30/2005			43.06	11.01			Intrinsics Only								0.40
9/29/2005			41.95	12.12	**4,700**	**300**	---	---	**61**	**20**	**50**	**37.6**	ND<100	---	0.62
10/24/2005			42.49	11.58			Measure DTW							Dissolved Metals= ND<10-20	
11/23/2005							Intrinsics Only								0.77
12/29/2005			53.27	0.80	**5,100**	**420**	---	---	**79**	**28**	**67**	**111**	ND<100	Dissolved Metals= ND<10-20, Bromate=ND<10	3.57
1/25/2006			49.45	4.85			Intrinsics Only								0.54
MW-35	17-20	54.46													
1/31/2003			50.01	4.45	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**13**	**TAME=2.1** All others ND	4.6
3/25/2003			50.48	3.98	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**10**	**TAME=1.5** All others ND	2.71
6/19/2003			47.64	6.82	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**15**	**TAME=2.1** All others ND	3.6
9/24/2003			44.19	10.27	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**13**	**TAME=2.1** All others ND	0.00
12/18/2003			50.39	4.07	ND<50	ND<50	ND<170	---	**1.2**	ND<0.50	ND<0.50	ND<0.50	**11**	**TAME=1.9** All others ND	---
3/23/2004			48.68	5.78	**84**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**14**	**TAME=2.1** All others ND<1.0-10	0.19
6/29/2004			48.28	6.18	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**12**	---	0.54
9/23/2004			43.52	10.94	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**12**	---	0.32
12/14/2004			49.21	5.25	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**11**	**Iron = 3,600**	---
4/27/2005			48.45	6.01	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**10**	---	0.33
6/20/2005			49.49	4.97	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**10**		0.54
9/29/2005			43.46	11.00	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**12**	---	0.67
12/29/2005			53.24	1.22	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**8.5**	---	1.85

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05, CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-36	13-14.5	54.50													
1/31/2003			40.25	14.25	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.8	**TAME=1.9** All others ND	3.71
3/25/2003			50.95	3.55	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	5.9	ND<1.0-20	2.28
6/19/2003			47.58	6.92	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.5	ND<1.0-20	0.56
9/24/2003			44.19	10.31	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	9.5	**TAME=1.6** All others ND	0.00
12/18/2003			50.43	4.07	ND<50	ND<50	ND<170	---	2.3	ND<0.50	ND<0.50	ND<0.50	5.2	ND<1.0-20	---
3/23/2004			48.76	5.74	86	ND<50	ND<170	---	0.89	ND<0.50	0.53	ND<0.50	7.0	ND<1-10	0.58
6/29/2004			48.21	6.29	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.0	---	0.68
9/23/2004			43.01	11.49	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	11	---	0.31
12/14/2004			49.11	5.39	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	7.7	**Iron = 1,300**	---
4/27/2005			48.70	5.80	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	5.8	---	0.38
6/20/2005			49.44	5.06	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.2	---	0.35
9/29/2005			42.98	11.52	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	8.9	---	0.43
12/29/2005			53.43	1.07	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.7	---	1.33
MW-37	17.25-19	55.85													
1/31/2003			44.57	11.28	1,100	51	ND<170	---	74	3.3	18	39.8	ND<1.0	ND<1.0-20	5.56
3/25/2003			53.48	2.37	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.6	ND<1.0-20	2.78
6/19/2003			51.90	3.95	--- --- --- --- --- --- --- --- --- --- No Sample Collected --- --- --- --- --- --- --- --- ---						---
9/24/2003			48.72	7.13	420	ND<50	ND<170	---	11	0.53	4.8	1.8	ND<6.0	ND<1.0-20	0.33
12/18/2003			53.71	2.14	92	ND<50	ND<170	---	2.9	ND<0.50	0.89	0.80	3.4	ND<1.0-20	0.80
3/23/2004			52.97	2.88	120	ND<50	180	---	2.8	ND<0.50	0.98	0.63	4.3	ND<1-10	0.46
6/29/2004			51.40	4.45	ND<50	ND<50	ND<170	---	3.4	ND<0.50	ND<0.50	ND<0.50	ND<13	---	0.58
9/23/2004			46.68	9.17	ND<50	ND<50	---	---	1.5	ND<0.50	ND<0.50	ND<0.50	ND<10	---	0.16
12/14/2004			53.70	2.15	ND<50	ND<50	---	---	0.88	ND<0.50	ND<0.50	ND<0.50	5.1	ND<100	0.45
4/27/2005			53.21	2.64	ND<50	ND<50	---	---	0.82	ND<0.50	ND<0.50	ND<0.50	5.2	---	0.66
6/20/2005			52.49	3.36	ND<50	ND<50	---	---	1.0	ND<0.50	ND<0.50	ND<0.50	5.8	---	0.85
9/29/2005			48.26	7.59	ND<50	ND<50	---	---	11	ND<0.50	ND<0.50	ND<0.50	4.5	---	0.22
12/29/2005			54.99	0.86	ND<50	58	---	---	0.56	ND<0.50	ND<0.50	ND<0.50	4.8	---	0.52
MW-38	12-14	55.81													
1/31/2003			53.99	1.82	7,100	280	ND<170	---	2,100	41	180	134	ND<1.0	ND<1.0-20	3.40
3/25/2003			54.10	1.71	1,300	79	ND<170	---	99	ND<2.5	ND<2.5	25.5	ND<20	ND<5.0-100	2.25
6/19/2003			51.82	3.99	3,000	160	ND<170	---	1,300	16	37	39.4	12	**TBA=32** All others ND	3.8
9/24/2003			48.56	7.25	680	62	ND<170	---	130	2.1	7.0	3.52	11	ND<1.0-20	0.31
12/18/2003			53.81	2.00	980	ND<50	ND<170	---	330	6.5	28.0	12.10	11	ND<1.0-20	---
3/23/2004			52.86	2.95	640	ND<50	ND<170	---	150	2.7	9.9	5.1	12	ND<1.0-26	0.40
6/29/2004			50.67	5.14	140	ND<50	ND<170	---	21	ND<1.8	0.70	0.70	14	---	0.89
7/20/2004			49.48	6.33	270	56	---	---	40	ND<3.0	1.4	0.74	14	---	0.64
8/24/2004			47.90	7.91	94	ND<50	---	---	10	ND<1.0	0.66	0.50	11	---	3.28
9/23/2004			46.55	9.26	ND<50	ND<50	---	---	1.6	ND<0.50	ND<0.50	ND<0.50	10	F-Hyde = ND<5.0 A-Hyde = ND<5.0 Cr = ND<10	0.85

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-38 Continued															
10/21/2004			49.19	6.62	83	ND<50	---	---	11	ND<1.0	ND<0.50	0.50	12	---	0.55
11/16/2004			50.68	5.13	82	ND<50	---	---	12	0.60	ND<0.50	0.58	11	---	2.87
12/14/2004			52.54	3.27	72	ND<50	---	---	13	0.54	ND<0.50	ND<0.50	11	Iron = 150	2.78
1/11/2005			54.52	1.29	270	ND<50	---	---	80	2.3	2.1	1.5	17	Iron = 210	1.12
2/15/2005			53.97	1.84	250	ND<50	---	---	47	2.1	2.0	2.0	12	---	0.38
3/30/2005			54.65	1.16	200	ND<50	---	---	28	1.5	1.3	1.2	14	---	0.66
4/27/2005			53.01	2.80	100	ND<50	---	---	19	0.61	ND<0.50	ND<0.50	11	---	0.49
5/24/2005			53.19	2.62	100	ND<50	---	---	16	0.87	0.80	0.57	12	---	0.44
6/20/2005			52.70	3.11	84	65	---	---	12	0.65	0.56	ND<0.50	10	---	0.48
8/11/2005			49.87	5.94			Intrinsics Only								0.31
8/30/2005			49.09	6.72			Intrinsics Only								0.34
9/29/2005			48.13	7.68	64	ND<50	---	---	10	ND<0.50	ND<0.50	ND<0.50	8.5	---	0.22
10/24/2005			47.70	8.11			Measure DTW							Dissolved Metals= ND<10-20	
11/23/2005			50.85	4.96			Intrinsics Only								0.93
12/29/2005			54.88	0.93	300	75	---	---	63	2.0	2.0	2.09	12	Dissolved Metals= ND<10-20, Bromate=ND<50	0.51
1/25/2006			51.71	2.59			Intrinsics Only								0.54
MW-39	17.75-19	55.24													
1/31/2003			41.37	13.87	Did not sample, bailer dropped into well										4.79
2/10/2003			44.34	10.90	760	53	ND<170	---	40	0.53	2.9	38.7	17	ND<1.0-20	3.5
3/26/2003			50.08	5.16	350	ND<50	ND<170	---	21	ND<0.50	ND<0.50	9.8	12	ND<1.0-20	4.08
6/19/2003			51.24	4.00	1,600	ND<50	ND<170	---	22	ND<0.50	1.8	ND<0.50	16	ND<1.0-20	---
9/24/2003			47.37	7.87	890	ND<50	ND<170	---	9.3	ND<0.50	1.7	0.72	12	ND<1.0-20	0.52
12/18/2003			53.21	2.03	140	ND<50	310	---	17.0	ND<0.50	1.4	0.88	13	ND<1.0-20	0.57
3/23/2004			52.20	3.04	170	ND<50	170	---	4.7	ND<0.50	0.95	0.56	18	ND<1-10	0.85
6/29/2004			50.14	5.10	57	ND<50	ND<170	---	7.9	ND<0.50	1.5	0.88	17	---	0.29
9/23/2004			46.56	8.68	ND<50	ND<50	---	---	4.3	ND<0.50	0.83	0.62	14	---	0.14
12/14/2004			51.39	3.85	ND<50	ND<50	---	---	1.6	ND<0.50	0.51	ND<0.50	13	Iron = 10,000	0.51
4/27/2005			53.06	2.18	ND<50	63	---	---	0.95	ND<0.50	ND<0.50	ND<0.50	14	---	0.33
6/20/2005			52.86	2.38	ND<50	ND<50	---	---	0.88	ND<0.50	ND<0.50	ND<0.50	13	---	0.41
9/29/2005			47.18	8.06	52	ND<50	---	---	9.60	ND<0.50	1.1	0.9	11	---	0.21
12/29/2005			54.40	0.84	ND<50	52	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	11	---	0.26
MW-40	13.25-16	55.17													
1/31/2003			43.75	11.42	120	92	ND<170	---	1.4	ND<0.50	ND<0.50	ND<0.50	21	ND<1.0-20	4.51
3/26/2003			53.59	1.58	ND<50	77	ND<170	---	7.8	ND<0.50	0.71	ND<0.50	16	ND<1.0-20	3.69
6/19/2003			51.36	3.81	720	ND<50	ND<170	---	110	ND<0.50	2.3	0.63	27	ND<1.0-20	---
9/24/2003			47.73	7.44	170	ND<50	ND<170	---	60	ND<0.50	ND<0.50	ND<0.50	20	ND<1.0-20	0.25
12/18/2003			52.45	2.72	150	ND<50	ND<170	---	34	ND<0.50	1.4	1.0	15	ND<1.0-20	0.83
3/23/2004			52.35	2.82	120	ND<50	ND<170	---	6.8	ND<0.50	ND<0.50	ND<0.50	20	ND<1.0-46	0.84
6/29/2004			48.77	6.40	74	ND<50	ND<170	---	17	ND<0.50	1.4	ND<3.7	19	---	0.31
9/23/2004			46.27	8.90	ND<50	ND<50	---	---	8.3	ND<0.50	ND<0.50	ND<0.50	14	---	1.10
12/14/2004			50.95	4.22	ND<50	ND<50	---	---	0.76	ND<0.50	ND<0.50	ND<0.50	11	Iron = 16,000	0.81
4/27/2005			52.12	3.05	ND<50	ND<50	---	---	0.51	ND<0.50	ND<0.50	ND<0.50	11	---	0.36
6/20/2005			51.31	3.86	ND<50	51	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10	---	0.71
9/29/2005			47.24	7.93	ND<50	ND<50	---	---	4.2	ND<0.50	ND<0.50	ND<0.50	10	---	0.50
12/29/2005			54.16	1.01	ND<50	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.5	---	0.23

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-41	16.5-18	54.38													
2/10/2003			50.98	3.40	ND<50	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**6.8**	ND<1.0-20	3.2
3/26/2003			53.08	1.30	ND<50	ND<50	ND<170	---	**2.2**	ND<0.50	ND<0.50	ND<0.50	**4.7**	ND<1.0-20	3.51
6/19/2003			49.80	4.58	**120**	ND<50	ND<170	---	**38**	ND<0.50	ND<0.50	ND<0.50	**10**	**TBA=22** All others ND	4.48
9/24/2003			46.82	7.56	**720**	ND<50	**220**	---	**5.6**	ND<0.50	ND<0.50	ND<0.50	**5.2**	ND<1.0-20	0.28
12/18/2003			51.87	2.51	**600**	ND<50	ND<170	---	**4.5**	ND<0.50	ND<0.50	ND<0.50	**4.3**	ND<1.0-20	0.59
3/23/2004			50.46	3.92	**230**	ND<50	ND<170	---	**8.0**	ND<0.50	ND<0.50	ND<0.50	**6.8**	ND<1-10	0.80
6/29/2004			49.57	4.81	ND<50	ND<50	ND<170	---	**6.8**	ND<0.50	ND<0.50	ND<1.4	**8.2**	---	0.50
9/23/2004			45.79	8.59	ND<50	ND<50	---	---	**3.7**	ND<0.50	ND<0.50	ND<2.0	ND<10	---	1.39
12/14/2004			51.00	3.38	ND<50	ND<50	---	---	**1.6**	ND<0.50	ND<0.50	ND<5.0	**5.5**	**Iron = 7,700**	0.45
4/27/2005			50.60	3.78	ND<50	ND<50	---	---	**0.95**	ND<0.50	ND<0.50	ND<0.50	**5.9**	---	0.30
6/20/2005			51.14	3.24	ND<50	**60**	---	---	**0.54**	ND<0.50	ND<0.50	ND<0.50	**6.2**	---	0.43
9/29/2005			46.28	8.10	ND<50	ND<50	---	---	**1.0**	ND<0.50	**0.7**	**0.79**	**4.4**	---	0.26
12/29/2005			52.79	1.59	ND<50	**67**	---	---	**0.52**	ND<0.50	ND<0.50	ND<1.5	**3.9**	---	1.61
MW-42	12-14.5	54.37													
1/31/2003			51.72	2.65	**140**	ND<50	ND<170	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**7.9**	ND<1.0-20	4.6
3/26/2003			52.94	1.43	ND<50	**72**	ND<170	---	**0.81**	ND<0.50	ND<0.50	ND<0.50	**5.4**	ND<1.0-20	3.16
6/19/2003			49.80	4.57	**700**	ND<50	ND<170	---	**230**	ND<0.50	ND<0.50	ND<0.50	**7.8**	**TBA=41** All others ND	4.17
9/24/2003			46.84	7.53	**480**	ND<50	ND<170	---	**230**	**0.75**	**0.64**	ND<0.50	**6.5**	**TBA=31** All others ND	0.43
12/18/2003			51.96	2.41	**230**	ND<50	ND<170	---	**80**	**0.67**	ND<0.50	ND<0.50	**6.2**	ND<1.0-20	---
3/23/2004			50.46	3.91	**300**	ND<50	ND<170	---	**62**	**0.54**	ND<0.50	ND<0.50	**7.2**	ND<1.0-40	0.68
6/29/2004			49.54	4.83	**240**	ND<50	ND<170	---	**51**	ND<1.8	ND<2.0	ND<1.5	ND<20	---	0.41
9/23/2004			46.11	8.26	**150**	ND<50	---	---	**19**	ND<0.50	ND<2.0	ND<1.5	ND<20	---	1.40
12/14/2004			51.00	3.37	**66**	ND<50	---	---	**3.2**	ND<0.50	ND<0.50	ND<0.50-1.5	ND<12	**Iron = 21,000**	0.43
4/27/2005			50.72	3.65	**58**	ND<50	---	---	**1.5**	ND<0.50	ND<0.50	ND<0.50-1.0	**5.6**	---	0.33
6/20/2005			50.79	3.58	**95**	**62**	---	---	**1.8**	ND<0.50	ND<0.50	ND<0.50-1.0	**7.6**	---	0.78
9/29/2005			46.33	8.04	**71**	ND<50	---	---	**1.9**	**0.62**	**1.2**	**1.9**	**5.1**	---	0.22
12/29/2005			53.52	0.85	ND<50	**54**	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**3.9**	---	1.48

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-43	16-18	54.61													
2/10/2003			50.71	3.90	43,000	98	260	---	17,000	3.3	ND<0.50	37	ND<1.0	TBA=64 All others ND	2.9
3/26/2003			52.86	1.75	44,000	65	400	---	11,000	2.3	2.0	25.3	ND<20	TBA=29 All others ND	2.79
6/19/2003			50.64	3.97	17,000	ND<50	ND<170	---	11,000	1.7	4.9	16.8	ND<30	TBA=71 All others ND	---
9/24/2003			46.80	7.81	3,300	ND<50	ND<170	---	4,000	1.3	2.9	2.9	9.4	TBA=42 All others ND	1.46
12/18/2003			52.00	2.61	1,500	85	ND<170	---	230	ND<0.50	1.7	1.2	11.0	TBA=35 All others ND	1.09
3/23/2004			51.09	3.52	910	51	ND<170	---	400	ND<0.50	0.68	1.0	12	TBA=46 All others ND<1.0	0.81
6/29/2004			48.46	6.15	1,900	ND<50	ND<170	---	1,100	1.2	4.2	3.7	ND<60	---	1.05
7/20/2004			48.10	6.51	3,500	ND<50	---	---	2,000	ND<5.0	ND<5.0	ND<5.0	ND<30	---	1.40
8/24/2004			45.95	8.66	12,000	ND<50	---	---	5,700	18	23	13.5	ND<30	---	1.54
9/23/2004			45.21	9.40	3,800	ND<50	---	---	1,500	ND<7.0	29	4.5	ND<130	F-Hyde = 15 A-Hyde = 16 Cr = ND<10	2.19
10/21/2004			49.54	5.07	410	ND<50	---	---	260	ND<0.50	0.80	0.83	ND<30	---	0.48
11/16/2004			50.41	4.20	870	62	---	---	360	1.1	6.2	2.0	ND<50	---	---
12/14/2004			51.89	2.72	1,000	ND<50	---	---	270	1.2	0.91	2.6	ND<70	ND<100	0.14
1/11/2005			52.98	1.63	350	ND<50	---	---	ND<6.0	ND<2.0	ND<0.50	0.60	ND<100	ND<100	0.28
2/15/2005			52.12	2.49	320	ND<50	---	---	ND<4.0	ND<1.5	ND<0.50	ND<0.50	ND<40	---	0.35
3/30/2005			52.55	2.06	650	ND<50	---	---	120	ND<2.0	ND<2.0	1.6	ND<80	---	0.74
4/27/2005			52.59	2.02	670	66	---	---	220	0.70	1.2	1.6	ND<40	---	0.61
5/24/2005			51.60	3.01	1,100	ND<50	---	---	490	1.4	4.2	2.4	ND<60	---	0.47
6/20/2005			51.31	3.30	1,800	59	---	---	980	ND<3.0	7.0	1.2	ND<70	---	1.39
8/11/2005			48.63	5.98			Intrinsics Only								0.54
8/30/2005			47.09	7.52			Intrinsics Only								1.00
9/29/2005			47.03	7.58	1,600	ND<50	---	---	840	1.4	6.8	3.0	ND<50	---	0.51
10/24/2005			46.21	8.40					Measure DTW					Vanadium=10, other Dissolved Metals= ND<10-20	
11/23/2005			49.78	4.83			Intrinsics Only								0.81
12/29/2005			52.67	1.94	500	53	---	---	68	0.71	2.8	1.71	ND<50	Dissolved Metals= ND<10-20, Hexavalent Chromium= NQ, Bromate = ND<50	1.37
1/25/2006			51.62	2.68			Intrinsics Only								0.60
MW-44	12-15	54.65													
2/10/2003			51.15	3.50	54,000	180	ND<170	---	22,000	92	30	78	ND<1.0	TBA=59 All others ND	3.2
3/26/2003			53.04	1.61	23,300	100	ND<170	---	11,000	26	59	ND<25	ND<50	ND<50-1,000	3.86
6/19/2003			50.52	4.13	6,100	61	ND<170	---	3,800	16	50	9.3	ND<3.0	ND<1.0-20	3.91
9/24/2003			46.64	8.01	4,900	ND<50	ND<170	---	7,100	19	30	7.0	7.1	TBA=34 All others ND	1.60
12/18/2003			52.78	1.87	4,200	ND<50	ND<170	---	5,700	6.4	24	4.5	5.0	ND<1.0-20	0.76
3/23/2004			51.23	3.42	5,600	ND<50	ND<170	---	2,800	3.6	18	4.1	ND<6.0	ND<1.0-30	0.42
6/29/2004			48.45	6.20	11,000	81	ND<170	---	6,000	26	30	16.7	ND<60	---	0.28
7/20/2004			47.98	6.67	12,000	ND<50	---	---	6,500	22	27	14.6	ND<60	---	0.51
8/24/2004			47.11	7.54	2,700	53	---	---	2,100	ND<5.0	ND<5.0	ND<5.0	ND<70	---	2.59

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.04/05; CRWQCB Case No. 1THU116

WELL/ Sample Date	Screened Interval (feet bgs)	Well Head Elevation (feet, NAVD88)	Groundwater Elevation (feet, NAVD88)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	TPHir (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other Analytes (µg/L)	Dissolved Oxygen (mg/L)
MW-44 Continued															
9/23/2004			45.75	8.90	**8,800**	**69**	---	---	**4,600**	**14**	**32**	**13.1**	ND<60	**F-Hyde = 5.5** **A-Hyde = 5.1** Cr = ND<10	2.04
10/21/2004			49.53	5.12	**3,500**	**59**	---	---	**1,600**	**4.7**	**3.7**	**6.8**	ND<40	----	0.27
11/16/2004			50.63	4.02	**3,100**	**72**	---	---	**1,700**	**6.6**	**8.4**	**9.6**	ND<60	----	0.56
12/14/2004			51.76	2.89	**3,000**	**56**	---	---	**1,400**	**4.7**	**5.6**	**6.5**	ND<40	**Iron = 3,500**	0.29
1/11/2005			53.66	0.99	**4,000**	**57**	---	---	**2,200**	**7.1**	**1.6**	**9.0**	ND<80	**Iron = 4,600**	0.36
2/15/2005			52.10	2.55	**2,900**	**55**	---	---	**1,400**	**4.8**	**2.3**	**6.0**	ND<50	---	0.36
3/30/2005			53.26	1.39	**3,600**	ND<50	---	---	**1,800**	**6.7**	**4.3**	**7.1**	ND<70	---	0.39
4/27/2005			51.51	3.14	**4,500**	**82**	---	---	**2,300**	**9.8**	**8.5**	**8.3**	ND<50	---	0.75
5/24/2005			51.69	2.96	**4,800**	ND<50	---	---	**2,900**	**13**	**13**	**10.6**	ND<60	---	0.48
6/20/2005			51.45	3.20	**6,800**	**71**	---	---	**3,900**	**15**	**12**	**11.4**	ND<60	---	0.29
8/11/2005			48.64	6.01			Intrinsics Only								0.48
8/30/2005			47.50	7.15			Intrinsics Only								0.70
9/29/2005			46.17	8.48	**5,600**	**73**	---	---	**2,800**	**14**	**24**	**12.5**	ND<50	---	0.81
10/24/2005			46.63	8.02					Measure DTW					**Vanadium=12**, other Dissolved Metals= ND<10-20	
11/23/2005			50.17	4.48			Intrinsics Only								0.60
12/29/2005			53.81	0.84	**1,800**	**67**	---	---	**740**	**3.8**	**9.4**	**5.2**	ND<40	**Vanadium=10**, other Dissolved Metals= ND<10-20, Bromate=ND<50	0.75
1/25/2006			51.51	2.79			Intrinsics Only								0.62
Duplicate Samples															
MW-13															
1/4/2001					**6,800**	---	---	---	**580**	**340**	**300**	**281**	**4.4**	---	---
MW-13															
4/12/2001					**240**	---	---	---	**35**	**2.9**	**4.2**	**8.06**	ND<0.50	---	---
MW-6															
7/10/2001					ND<50	---	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**32**	---	---
MW-19															
11/1/2001					ND<50	---	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---
MW-9															
11/1/2001					**900**	---	---	---	**330**	**3.1**	**0.60**	**0.72**	ND<1.0	ND<1.0-20	---
MW-44															
12/29/2005					**1,800**	---	---	---	**740**	**3.1**	**7.6**	**4**	ND<30	---	---

NOTES:
bove mean sea level
ocarbons as gasoline
drocarbons as diesel
carbons as motor oil
; by infrared method
cylene and o-xylene.
he Fuel Oxygenates:
/l tertiary butyl ether
i - di-isopropyl ether
/l tertiary butyl ehter
ertiary butyl alcohol
ry amyl methyl ether
dyde - Acetaldehyde

F-Hyde - Formaldehyde
Dissolved Metals = Hexavalent Chromium, Molybdenum, Vanadium, and Selenium
Cr - Dissolved Chromium
COD - Chemical oxygen demand
All results reported in micrograms per liter (µg/L)
ND<50 - non-detect at reporting limits shown
NQ = Non-Quantifiable
--- = sample not analyzed for parameter
* - sample broken in laboratory and not analyzed

TABLE 2: DECAY RATES FOR TPHg AND BENZENE
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO No. 4629.05, CRWQCB Case No. 1THU116

Comparisons of Decay Rates (k) days					
	Derived from				
MW ID	Charts	Analyticals		Literature**	
TPHg*				slow	fast
MW31	-0.0021	-0.0028		-0.0019	-0.0038
MW32	-0.00040	-0.00067		-0.0019	-0.0038
Benzene					
MW31	-0.0021	-0.0024		-0.00096	-0.0062
MW32	-0.00060	-0.00053		-0.00096	-0.0062

* TPHg literature decay rates are based on cyclohexane decay rates.

**Decay rates derived from half-life values listed in "Handbook of Environmental Degradation Rates", Howard, P.H.; Boethling, R.S.; et a

CHART 1: TPHG CONCENTRATIONS AND TREND LINE FOR MONITORING WELL MW31
Former Shell Bulk Plant, 400 Eighth Street, Fortuna
LACO Project No. 4629.05; CRWQCB Case No. 1THU116

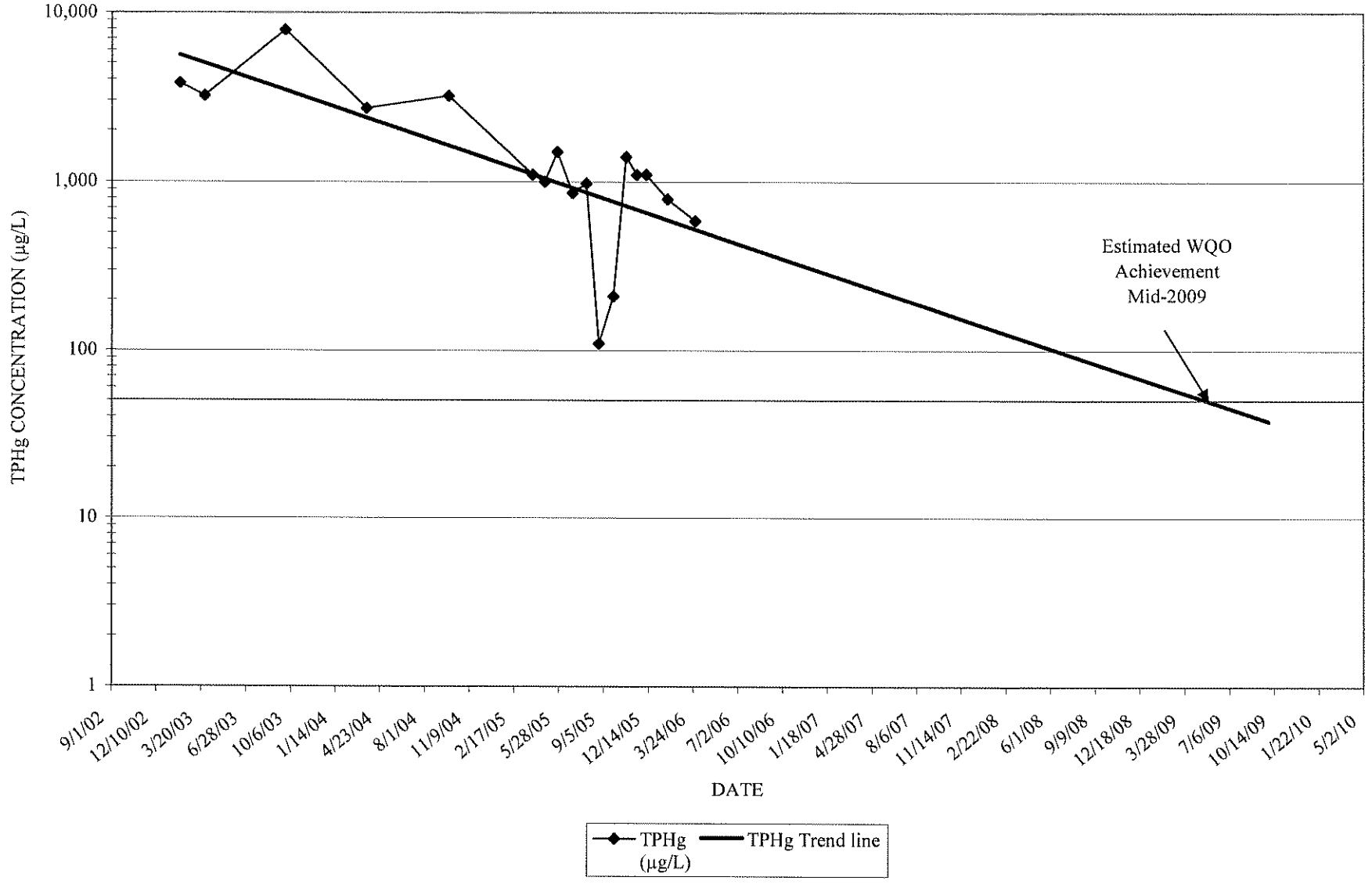


CHART 2: BENZENE CONCENTRATIONS AND TREND LINE FOR MONITORING WELL MW31
Former Shell Bulk Plant; 400 Eighth Street, Fortuna
LACO Project No. 4629.02; CRWQCB Case No. 1THU116

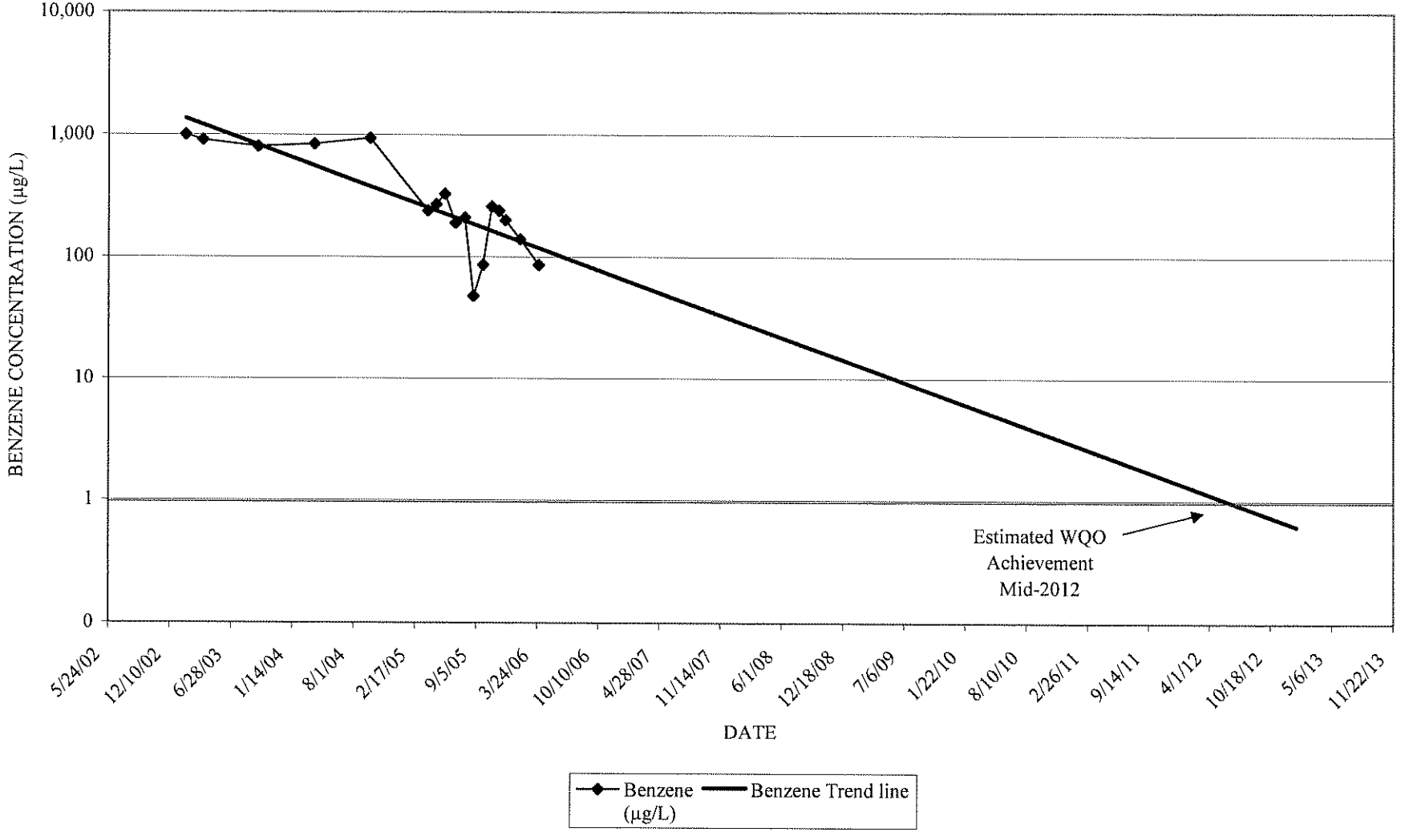


CHART 3: TPHG CONCENTRATIONS AND TREND LINE FOR MONITORING WELL MW32
Former Shell Bulk Plant; 400 Eighth Street, Fortuna
LACO Project No. 4629.02; CRWQCB Case No. 1THU116

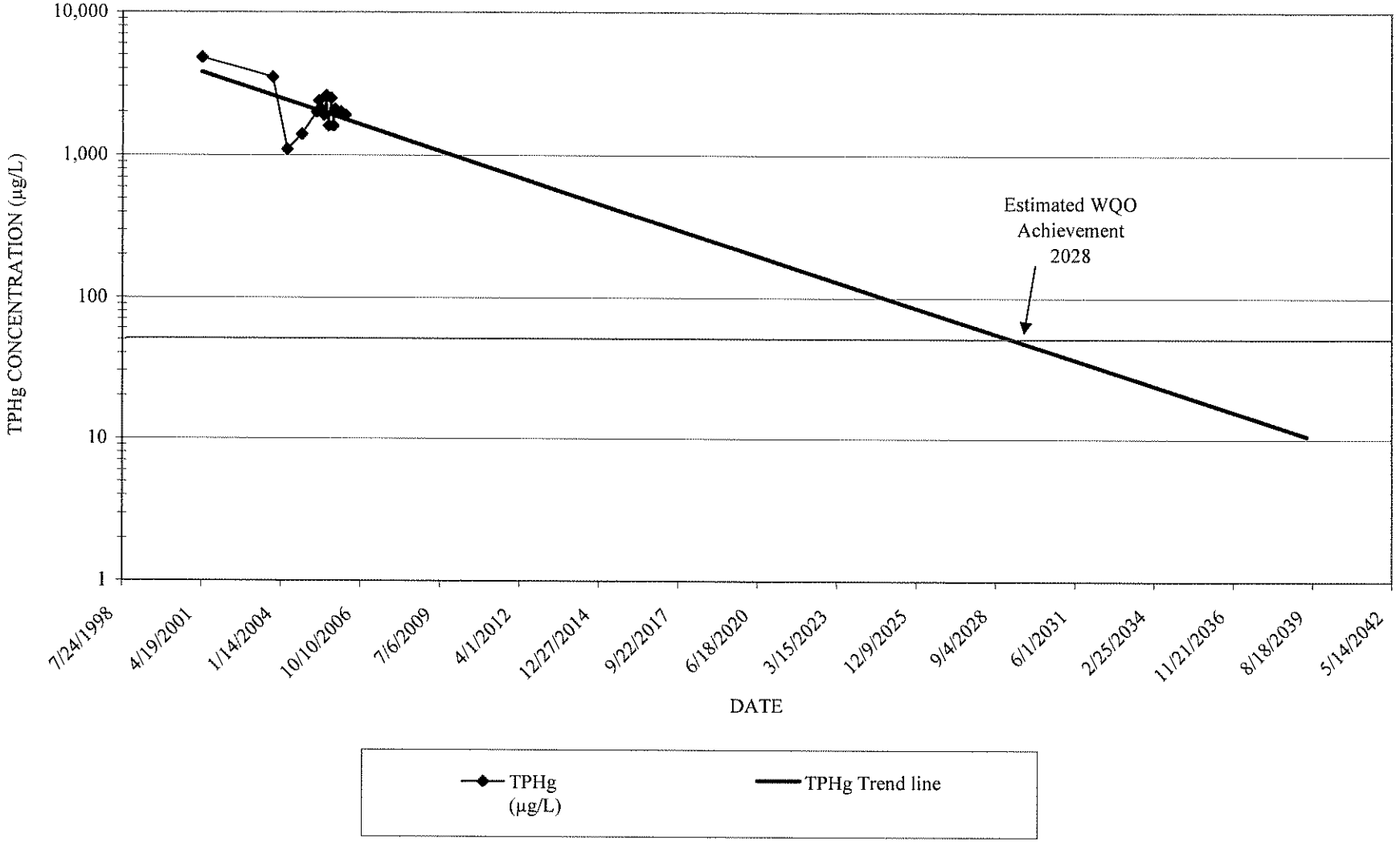
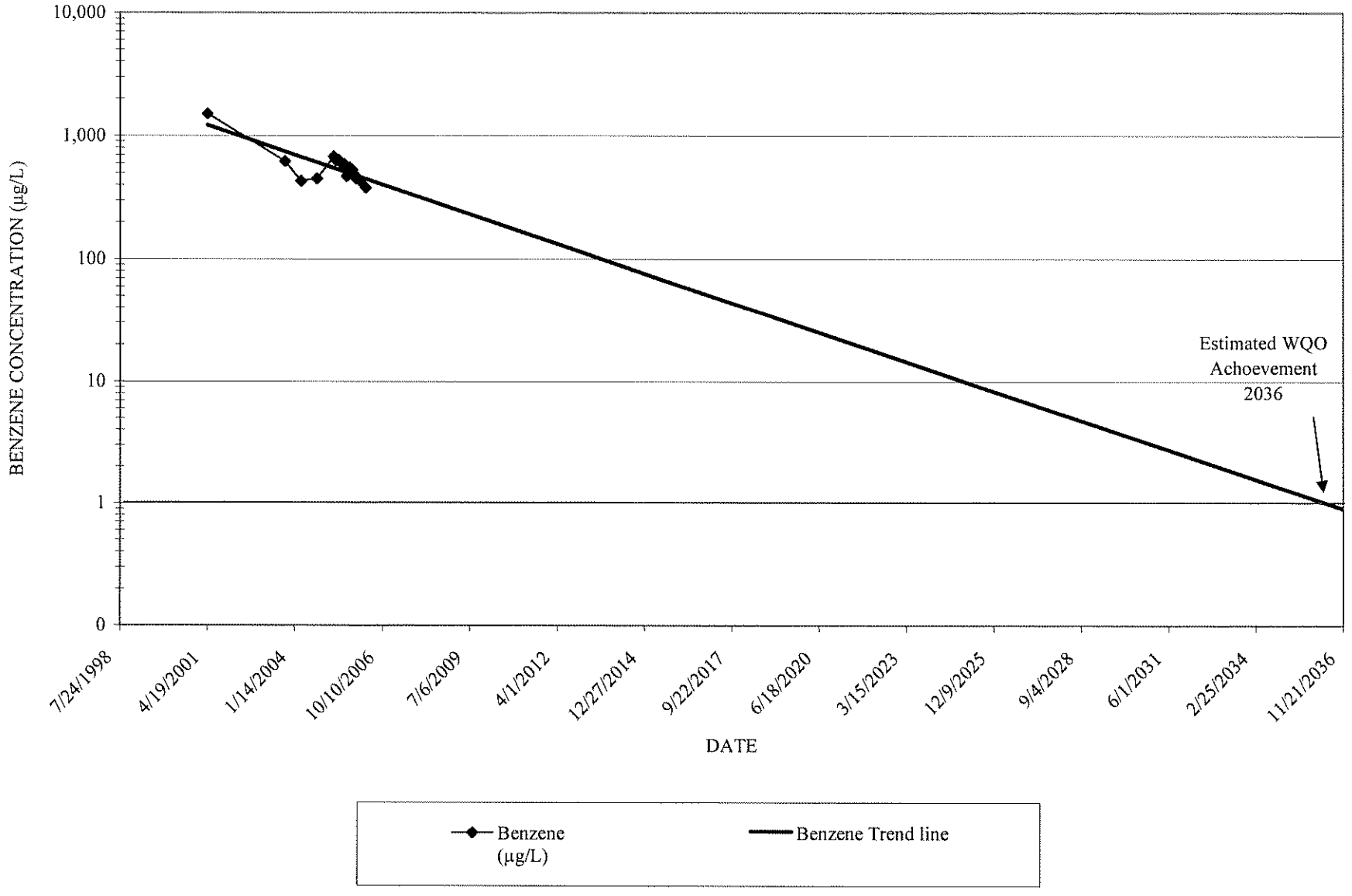


CHART 4: BENZENE CONCENTRATIONS AND TREND LINE FOR MONITORING WELL MW32
Former Shell Bulk Plant; 400 Eighth Street, Fortuna
LACO Project No. 4629.02 ;CRWQCB Case No. 1THU116



WORKSHEET 1: DECAY RATES IN MONITORING WELLS MW31 AND MW32, DERIVED FROM ANALYTICAL RESULTS
Former Shell Bulk Plant; 400 Eighth Street, Fortuna
LACO Project No. 4629.05; CRWQCB Case No. 1THU116

Decay Rate Analysis Using The First Order Decay Equation And Sampling Results

Monitoring Well ID / Constituent	Concentration Final (CF) (µg/L)	CF Date	Concentration Initial (CI) (µg/L)	CI Date	Time (t) days between CF and CI	k = decay rate constant ($days^{-1}$)	Using Decay rate k; Obtain (t in days) to reach WQO	WQO TPHg (µg/L)	WQO Benzene (µg/L)	Year WQO reached
								50	1.0	
TPHg										
MW 31	590	3/28/2006	7900	9/23/2003	917	**-0.0028**	872			2008
MW 32	1900	3/28/2006	3500	9/23/2003	917	**-0.00067**	5460			2021
BENZENE										
MW31	86	3/28/2006	800	9/23/2003	917	**-0.0024**	1831			2011
MW32	380	3/28/2006	620	9/23/2003	917	**-0.00053**	11127			2036

Attachment 1

KEY TO ABBREVIATIONS
Former Shell Bulk Plant; 400 Eighth Street, Fortuna
LACO Project No. 4629.05; Case No. 1THU116

KEY TO ABBREVIATIONS	
Alk	-- Alkalinity
As	-- Arsenic
BTEX	-- Benzene; Toluene; Ethylbenzene; m,p- and o- Xylenes
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

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

Project Name: **Bulk Plant - HPI (AST)**
Project No.: **4629.02**
Date: 10-24-05
Golbal ID No.: **T0602391121**
PM: **CJW**

Tech: SJD
Mob/Demob time: .50/.25
Travel time: 1.0
Time on site: 8:45/10:20
Time off site: 11:00/1:15
Mileage: 36

WELL No.:	MW10		MW11		MW14		MW17D		MW3	
DIAMETER (in)	2.00		1.00		1.00		1.50		4.00	
SCREENED INTERVAL (ft)	3-18		2-14		6-15		22.5-27.5		3-20	
DEPTH TO WATER (ft)	13.33		DRY		14.55		13.39		10.96	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING — FIELD INTRINSICS: pH										
TEMP (°C)										
Ecw (µmohs)										
ORP (mV)									-30	-60
DO (mg/L)									1.20	0.37
OTHER (units)										
PURGE: TIME									9:57	10:09
METHOD (DHP/CB/B)									DHP	
RATE (Lpm)									0.18	
VOLUME (L)									2.0	
COLOR									CLEAR	YELLOW TINT W/ SPECKLED SHEEN
ODOR									MED. FUEL	
INTAKE DEPTH (FEET)									15.0	
SAMPLE: TIME									10:11	
METHOD (DHP/CB/B)									DHP	
ANALYTES	DTW ONLY		DTW ONLY		DTW ONLY		DTW ONLY		TPHg/BTEX; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	—		—		—		—		0.41	
REMARKS	—		—		—		—		—	
WELL CONDITION	good		good		good		good		good	
WASTE DRUMS										

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: **Bulk Plant - HPI (AST)**
Project No.: **4629.02**
Date: 10-24-05
Golbal ID No.: **T0602391121**
PM: **CJW**

Tech: SJD
Mob/Demob time: .50/.25
Travel time: 1.0
Time on site: 8:45 / 10:20
Time off site: 11:00 / 12:15
Mileage: 36

WELL No.:	MW18		MW31		MW32					
DIAMETER (in)	1.50		1.50		1.50					
SCREENED INTERVAL (ft)	18.5-21.5		16.5-18		14-15.5					
DEPTH TO WATER (ft)	12.49		11.24		12.35					
	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)			-34	-78	-21	-67				
FIELD INTRINSICS: DO (mg/L)			0.79	0.28	1.15	0.42				
FIELD INTRINSICS: OTHER (units)										
PURGE: TIME	12:52	12:57	11:13	11:27	11:52	12:02				
PURGE: METHOD (DHP/CB/B)	1/2" B		DHP		DHP					
PURGE: RATE (Lpm)	0.10		0.18		0.18					
PURGE: VOLUME (L)	.50		2.50		1.75					
PURGE: COLOR	CLEAR	CLOUDY	MED GRY TURBID	MED. GRY TURBID	LT. GREY TURBID	LT. GREY CLOUDY				
PURGE: ODOR	STRONG SWEET		MED. SULFUR/FUEL		LIGHT SULFUR/PLASTIC					
PURGE: INTAKE DEPTH (FEET)			17.0		14.5					
SAMPLE: TIME	1:05		11:29		12:04					
SAMPLE: METHOD (DHP/CB/B)	1/2" B		DHP		DHP					
SAMPLE: ANALYTES	TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC					
SAMPLE: TOTAL DRAWDOWN (FEET)			4.49		2.17					
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: BULK PLANT - HPI (AST)
Project No.: 4629.02
Tech: SJD
Date: 10-24-05

METER ACCURACY RANGE

mw3	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L

WELL ID: mw3					
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
9:59	~	~	~	-39	0.76
10:01	~	~	~	-43	0.50
10:03	~	~	~	-49	0.51
10:05	~	~	~	-54	0.40
10:07	~	~	~	-59	0.36
10:09	~	~	~	-60	0.37

WELL ID:					
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:15	~	~	~	-43	0.43
11:17	~	~	~	-51	0.32
11:19	~	~	~	-59	0.32
11:21	~	~	~	-66	0.26
11:23	~	~	~	-72	0.25
11:25	~	~	~	-77	0.24
11:27	~	~	~	-78	0.28

WELL ID: mw32					
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:54	~	~	~	-38	0.86
11:56	~	~	~	-49	0.57
11:58	~	~	~	-57	0.42
12:00	~	~	~	-65	0.39
12:02	~	~	~	-67	0.42

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: BULK PLANT - HPI (AST)
Project No.: 4629.02
Tech: SJO
Date: 10-24-05

WELL ID: MW3		WELL ID: MW10		WELL ID: MW11		WELL ID: MW14		WELL ID: MW17D		WELL ID: MW18	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
9:02	10.96	9:04	13.32	9:22	DRY	12:19	14.55	12:24	13.39	12:38	12.49
9:12	10.96	9:14	13.32			12:29	14.55	12:34	13.39	12:48	12.49

WELL ID: MW31		WELL ID: MW32		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)
9:07	11.24	9:08	12.38								
9:17	11.24	9:18	12.38								

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)

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; Chris Watt
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: 4629.02
Project Name: HPI - Bulk Plant-AST
Purchase Order Number: task 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	PRESERVATIVE	CONTAINER	ANALYSIS: 8260 List 1	ANALYSIS: TPHd w/SGC
	4629-MW-3-W	10-24-05	Am	GW	b	9	3	1
	4629-MW-18-W	↓	↓	↓			3	1
	4629-MW-31-W	↓	↓	↓			3	1
	4629-MW-32-W	↓	↓	↓			3	1
	4629-QCTB	↓	Pm	↓		7	1	

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
GEOTRACKER

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: Bulk Plant - HPI (AST)
Project No.: 4629.02
Date: 11-17-05
Golbal ID No.: T0602391121
PM: CJW

Tech: SJD
Mob/Demob time: .25/.25
Travel time: 1.0
Time on site: 9:20
Time off site: 12:20
Mileage: 36

WELL No.:	MW10		MW11		MW14		MW17D		MW3	
DIAMETER (in)	2.00		1.00		1.00		1.50		4.00	
SCREENED INTERVAL (ft)	3-18		2-14		6-15		22.5-27.5		3-20	
DEPTH TO WATER (ft)	8.08		DRY		14.59		11.25		7.99	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING — FIELD INTRINSICS: pH										
TEMP (°C)										
Ecw (µmohs)										
ORP (mV)									-45	-58
DO (mg/L)									0.88	0.29
OTHER (units)										
PURGE: TIME									11:43	11:51
METHOD (DHP/CB/B)									CAM PUMP	
RATE (Lpm)									0.21	
VOLUME (L)									1.65	
COLOR									CLEAR	YELLOW TINT CLOUDY
ODOR									STRONG FUEL / RUBBER	
INTAKE DEPTH (FEET)									14.0	
SAMPLE: TIME									11:54	
METHOD (DHP/CB/B)									CAM PUMP	
ANALYTES	DTW ONLY		DTW ONLY		DTW ONLY		DTW ONLY		TPHg/BTEX; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	—		—		—		—		0.36	
REMARKS	—		—		—		WATER IN RAVINE		—	
WELL CONDITION	good		NO COVER ON RISER		NO COVER ON RISER		good		good	
WASTE DRUMS										

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: **Bulk Plant - HPI (AST)**
Project No.: **4629.02**
Date: 11-17-05
Golbal ID No.: **T0602391121**
PM: **CJW**

Tech: SJD
Mob/Demob time: .25/.25
Travel time: 1.0
Time on site: 9:20
Time off site: 12:20
Mileage: 36

WELL No.:	MW18		MW31		MW32					
DIAMETER (in)	1.50		1.50		1.50					
SCREENED INTERVAL (ft)	18.5-21.5		14-15.5		16.5-18					
DEPTH TO WATER (ft)	—		8.59		9.68					
	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)			-6	-70	-53	-72				
FIELD INTRINSICS: DO (mg/L)			1.82	0.62	0.78	0.35				
FIELD INTRINSICS: OTHER (units)			—		—					
PURGE: TIME			10:39	10:51	11:06	11:16				
PURGE: METHOD (DHP/CB/B)			CAM PUMP		CAM PUMP					
PURGE: RATE (Lpm)			0.18		0.20					
PURGE: VOLUME (L)			2.0		2.0					
PURGE: COLOR			MED. GREY TURBID	CLOUDY	CLOUDY	LT. BROWN CLOUDY				
PURGE: ODOR			MED. RUBBER/FUEL		STRONG RUBBER/FUEL					
PURGE: INTAKE DEPTH (FEET)			17.5		14.5					
SAMPLE: TIME	—		10:53		11:19					
SAMPLE: METHOD (DHP/CB/B)	—		CAM PUMP		CAM PUMP					
SAMPLE: ANALYTES	TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC					
SAMPLE: TOTAL DRAWDOWN (FEET)	—		2.88		1.33					
SAMPLE: REMARKS	RAVINE FULL OF WATER - UNABLE		—		FD-MB					
WELL CONDITION	TO REACH WELL		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: BULK PLANT - HPI (AST)
Project No.: 4629.02

Tech: SJD
Date: 11-17-05

WELL ID:	METER ACCURACY RANGE				
MW31	+/- 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)
10:41	~	~	~	-32	0.89
10:43	~	~	~	-46	0.85
10:45	~	~	~	-58	0.87
10:47	~	~	~	-65	0.74
10:49	~	~	~	-69	0.69
10:51	~	~	~	-70	0.62

WELL ID: MW32

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:08	~	~	~	-55	0.44
11:10	~	~	~	-62	0.41
11:12	~	~	~	-66	0.42
11:14	~	~	~	-71	0.37
11:16	~	~	~	-72	0.35

WELL ID: MW3

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:45	~	~	~	-47	0.43
11:47	~	~	~	-53	0.35
11:49	~	~	~	-57	0.32
11:51	~	~	~	-58	0.29

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: BULK PLANT - HPI (AST)
Project No.: 4629.02
Tech: SJD
Date: 11-17-05

WELL ID: MW3		WELL ID: MW10		WELL ID: MW11		WELL ID: MW14		WELL ID: MW17D		WELL ID: MW18	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
10:08	7.99	9:45	8.08	9:51	DRY	9:48	14.58	9:54	11.20	—	—
10:18	7.99	9:59	8.08	—	—	10:02	14.58	10:05	11.20	—	—

WELL ID: MW31		WELL ID: MW32		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)
10:10	8.59	10:11	9.68								
10:20	8.59	10:22	9.68								

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; Chris Watt
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: 4629.02
Project Name: HPI - Bulk Plant-AST
Purchase Order Number: task 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1 (CONTAINER 9, PRESERVATIVE b)	ANALYSIS: TPHd w/SGC (CONTAINER 7, PRESERVATIVE ----)	SAMPLE CONDITION/SPECIAL INSTRUCTIONS
	4629-MW-3-W	11-17-05	AM	GW	3	1	GEOTRACKER
	4629-MW-31-W				3	1	
	4629-MW-32-W				3	1	
	4629-QCTB				1		
	4629-QCMB				3		
	4629-QCFD				3		

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: Bulk Plant - ~~HPI~~ (AST) W&S ENVIRO
Project No.: 4629.02
Date: 12-8-05
Golbal ID No.: T0602391121
PM: CJW

Tech: SJD
Mob/Demob time: .50/.25
Travel time: 1.0
Time on site: 9:50
Time off site: 12:45
Mileage: 36

WELL No.:	MW10		MW11		MW14		MW17D		MW3	
DIAMETER (in)	2.00		1.00		1.00		1.50		4.00	
SCREENED INTERVAL (ft)	3-18		2-14		6-15		22.5-27.5		3-20	
DEPTH TO WATER (ft)	7.02		13.28		14.51		9.67		5.97	
	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)									42	60
FIELD INTRINSICS: DO (mg/L)									1.02	0.44
FIELD INTRINSICS: OTHER (units)									—	
PURGE: TIME									11:13	11:21
PURGE: METHOD (DHP/CB/B)									CAM PUMP	
PURGE: RATE (Lpm)									0.20	
PURGE: VOLUME (L)									1.60	
PURGE: COLOR									CLEAR	SLIGHT YELLOW TINT
PURGE: ODOR									STRONG RUBBER/FUEL	
PURGE: INTAKE DEPTH (FEET)									12.0	
SAMPLE: TIME									11:24	
SAMPLE: METHOD (DHP/CB/B)									CAM PUMP	
SAMPLE: ANALYTES	DTW ONLY		DTW ONLY		DTW ONLY		DTW ONLY		TPHg/BTEX; TPHd w/SGC	
SAMPLE: TOTAL DRAWDOWN (FEET)	—		—		—		—		0.29	
SAMPLE: REMARKS	—		—		—		1 FOOT OF WATER SURROUNDING WELL		—	
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

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

Project Name: Bulk Plant - HPI (AST)
Project No.: 4629.02
Date: 12-8-05
Golbal ID No.: T0602391121
PM: CJW

Tech: SJD
Mob/Demob time: .50/.25
Travel time: 1.0
Time on site: 9:50
Time off site: 12:45
Mileage: 36

WELL No.:	MW18		MW31		MW32					
DIAMETER (in)	1.50		1.50		1.50					
SCREENED INTERVAL (ft)	18.5-21.5		16.5-18		14-15.5					
DEPTH TO WATER (ft)			6.30		7.14					
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING — FIELD INTRINSICS: pH										
TEMP (°C)										
Ecw (µmohs)										
ORP (mV)			10	-53	-45	-47				
DO (mg/L)			1.12	0.36	1.20	0.35				
OTHER (units)										
PURGE: TIME			11:44	12:00	12:15	12:23				
METHOD (DHP/CB/B)			CAM PUMP		CAM PUMP					
RATE (Lpm)			0.16		0.20					
VOLUME (L)			2.50		1.60					
COLOR			MED. GREY TURBID	LT. GREY W/ SLIGHT SHEEN	CLEAR	LT. YELLOW TINT				
ODOR			STRONG FUEL / RUBBER		LIGHT RUBBER/FUEL					
INTAKE DEPTH (FEET)			17.0		14.5					
SAMPLE: TIME			12:04		12:26					
METHOD (DHP/CB/B)			CAM PUMP		CAM PUMP					
ANALYTES	TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC					
TOTAL DRAWDOWN (FEET)			2.95		1.34					
REMARKS										
WELL CONDITION	UNABLE TO GET TO WELL - WATER TOO DEEP!!		good		good					
WASTE DRUMS										

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: BULK PLANT - W&S, ENVIRO
Project No.: 4629.02
Tech: SJD
Date: 12-8-05

WELL ID:	METER ACCURACY RANGE				
mw3	+/- 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)
11:15	~	~	~	54	0.66
11:17	~	~	~	59	0.76
11:19	~	~	~	61	0.59
11:21	~	~	~	60	0.44

WELL ID: mw31					
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:46	~	~	~	1	0.49
11:48	~	~	~	-14	0.57
11:50	~	~	~	-28	0.56
11:52	~	~	~	-38	0.49
11:54	~	~	~	-44	0.46
11:56	~	~	~	-49	0.39
11:58	~	~	~	-52	0.39
12:00	~	~	~	-53	0.36

WELL ID: mw32					
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
12:17	~	~	~	-39	0.62
12:19	~	~	~	-42	0.38
12:21	~	~	~	-46	0.36
12:23	~	~	~	-47	0.35

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: BULK PLANT (AST) W/S ENVIRO

Project No.: 4629.02

Tech: SJD

Date: 12-8-05

WELL ID: MW3		WELL ID: MW10		WELL ID: MW11		WELL ID: MW14		WELL ID: MW17D		WELL ID: MW18	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
10:30	5.97	10:25	7.02	10:23	13.28	10:20	14.51	10:17	9.67	—	—
10:50	5.97	10:46	7.02	10:44	13.28	10:41	14.51	10:37	9.67	—	—

WELL ID: MW31		WELL ID: MW32		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)
10:32	6.30	10:33	7.14								
10:52	6.30	10:53	7.14								

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; Chris Watt
Sampler (Sign & Print): SJD Stuart

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: 4629.02
Project Name: HPI - Bulk Plant-AST
Purchase Order Number: task 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1 (CONTAINER 9, PRESERVATIVE b)	ANALYSIS: TPHd w/SGC (CONTAINER 7, PRESERVATIVE ------)	SAMPLE CONDITION/SPECIAL INSTRUCTIONS
	4629-MW-3-W	12-8-05	AM	GW	3	1	GEOTRACKER
	4629-MW-31-W				3	1	
	4629-MW-32-W				3	1	
	4629-QCTB		PM		1		

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: **Bulk Plant - WSE (AST)**
Project No.: **4629.02**
Date: 1-25-06
Golbal ID No.: **T0602391121**
PM: **CJW**

Tech: SJD
Mob/Demob time: .25/.25
Travel time: 1.0
Time on site: 8:50
Time off site: 11:10
Mileage: 36

WELL No.:	MW10		MW11		MW14		MW17D		MW3	
DIAMETER (in)	2.00		1.00		1.00		1.50		4.00	
SCREENED INTERVAL (ft)	3-18		2-14		6-15		22.5-27.5		3-20	
DEPTH TO WATER (ft)	5.96		7.15		10.13		4.97		4.54	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH										
TEMP (°C)										
Ecw (µmohs)										
ORP (mV)									50	74
DO (mg/L)									0.76	0.27
OTHER (units)									—	
PURGE: TIME									9:49	9:57
METHOD (DHP/CB/B)									CAM PUMP	
RATE (Lpm)									0.20	
VOLUME (L)									1.60	
COLOR									CLEAR	YELLOW BROWN TINT
ODOR									MED. RUBBER/FUEL	
INTAKE DEPTH (FEET)									17.0	
SAMPLE: TIME									9:59	
METHOD (DHP/CB/B)									CAM PUMP	
ANALYTES	DTW ONLY		DTW ONLY		DTW ONLY		DTW ONLY		TPHg/BTEX; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	—		—		—		—		0.44	
REMARKS	—		—		—		1½' OF WATER AROUND RISER		—	
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

LACO ASSOCIATES
CONSULTING ENGINEERS

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

Project Name: Bulk Plant - WSE (AST)

Project No.: 4629.02

Tech: SJD

Date: 1-25-06

WELL ID: mw3		WELL ID: mw10		WELL ID: mw11		WELL ID: mw14		WELL ID: mw17D		WELL ID: mw18	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
8:59	4.54	9:13	5.96	9:16	7.15	9:18	10.13	9:23	4.97		
9:47	4.54	9:32	5.96	9:34	7.15	9:37	10.13	9:42	4.97		

WELL ID: mw31		WELL ID: mw32		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)
9:28	3.45	9:29	4.30								
10:15	3.45	10:36	4.30								

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; Chris Watt
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: 4629.02
Project Name: WSE - Bulk Plant-AST
Purchase Order Number: task 3035

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1	ANALYSIS: TPHd w/SGC	CONTAINER	PRESERVATIVE
	4629-MW-3-W	1-25-06	AM	GW	3	1	9	b
	4629-MW-18-W	↓	↓	↓	3	1		
	4629-MW-31-W				3	1		
	4629-MW-32-W				3	1		
	4629-QCTB				1		7	------

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

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: Bulk Plant - W&S (AST)
Project No.: 4629.05
Date: 3-28-06
Golbal ID No.: T0602391121
PM: CJW

Tech: SJD/RLD
Mob/Demob time: .25/.50
Travel time: 1.0
Time on site: 8:15
Time off site: 2:30
Mileage: 36

WELL No.:	MW3		MW7		MW9		MW10		MW11	
DIAMETER (in)	4.00		4.00		2.00		2.00		1.00	
SCREENED INTERVAL (ft)	3-20		6-25		3-18		3-18		2-14	
DEPTH TO WATER (ft)	3.98		3.86		4.33		5.13		10.38	
	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)			51	51	-97	UF	117	101	—	—
FIELD INTRINSICS: DO (mg/L)			1.49	1.80	3.93	0.79	4.25	1.89	—	—
FIELD INTRINSICS: OTHER (units)			—		—		—		—	
PURGE: TIME			11:39	11:47	12:43	12:51	11:09	11:19	10:17	10:27
PURGE: METHOD (DHP/CB/B)			DHP		DHP		DHP		3/4" B	
PURGE: RATE (Lpm)			0.25		0.25		0.25		—	
PURGE: VOLUME (L)			2.0		2.0		2.5		0.5	
PURGE: COLOR			CLEAR	CLOUDY CLEAR	CLEAR	LIGHT GREY	CLEAR	CLEAR	TAN TINT	TAN
PURGE: ODOR			LIGHT FUEL LIGHT ANISEWEED LIGHT SULFUR		STRONG FUEL		NONE		NONE	
PURGE: INTAKE DEPTH (FEET)			15.0		10.5		12.5		12.0	
SAMPLE: TIME			11:49		12:53		11:21		10:27	
SAMPLE: METHOD (DHP/CB/B)			DHP		DHP		DHP		3/4" B	
SAMPLE: ANALYTES	TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC	
SAMPLE: TOTAL DRAWDOWN (FEET)			0.42		0.21		0.32		—	
SAMPLE: REMARKS			—		—		—		—	
WELL CONDITION	GOOD		GOOD		GOOD		GOOD		NO BOX LID FAIR	
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:3/6/2006

LACO ASSOCIATES
CONSULTING ENGINEERS

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

Project Name: **Bulk Plant - W&S (AST)**
Project No.: **4629.05**
Date: 3-28-06
Golbal ID No.: **T0602391121**
PM: **CJW**

Tech: SJD / RLD
Mob/Demob time: .25/.50
Travel time: 1.0
Time on site: 8:15
Time off site: 2:30
Mileage: 36

WELL No.:	MW14		MW17S		MW17D		MW18		MW21	
DIAMETER (in)	1.00		1.50		1.50		1.50		1.00	
SCREENED INTERVAL (ft)	6-15		15.5-18		22.5-27.5		18.5-21.5		10-12	
DEPTH TO WATER (ft)	7.15		2.91		6.65		—		5.32	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING — FIELD INTRINSICS: pH										
TEMP (°C)										
Ecw (µmohs)										
ORP (mV)	—	—	—	—	—	—			ur	ur
DO (mg/L)	—	—	—	—	—	—			1.81	0.40
OTHER (units)			—		—				—	
PURGE: TIME	10:39	10:43	10:05	10:09	9:07	9:15			1:29	1:35
METHOD (DHP/CB/B)	3/4" B		3/4" B		1/2" B				CAM	
RATE (Lpm)	—		—		—				0.17	
VOLUME (L)	0.5		0.5		0.5				1.0	
COLOR	CLOUDY CLEAR	CLOUDY CLEAR	CLEAR	CLEAR	CLEAR	CLEAR			CLEAR	CLEAR
ODOR	NONE		NONE		NONE				LIGHT FUEL LIGHT SULFUR LIGHT TURBID	
INTAKE DEPTH (FEET)	12.0		16.0		24.0				11.5	
SAMPLE: TIME	10:45		10:13		9:17		—		1:37	
METHOD (DHP/CB/B)	3/4" B		3/4" B		1/2" B		—		CAM	
ANALYTES	TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	—		—		—		—		0.21	
REMARKS	—		—		COULD BARELY REACH BOX		CANNOT ACCESS		—	
WELL CONDITION	NO BOX LID FAIR		GOOD - BUT IN 2' OF WATER		GOOD - BUT IN 2' OF WATER		SURROUNDED W/ WATER		GOOD	
WASTE DRUMS										

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: **Bulk Plant - W&S (AST)**
Project No.: **4629.05**
Date: 3-28-06
Golbal ID No.: **T0602391121**
PM: **CJW**

Tech: SJD
Mob/Demob time: 25/50
Travel time: 1.0
Time on site: 8:15
Time off site: 2:30
Mileage: 36

WELL No.:	MW26		MW31		MW32					
DIAMETER (in)	2.00		1.50		1.50					
SCREENED INTERVAL (ft)	5-10		16.5-18		14-15.5					
DEPTH TO WATER (ft)	3.17		3.4		3.82					
	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)										
SAMPLE: ANALYTES	TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC					
SAMPLE: TOTAL DRAWDOWN (FEET)										
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: BULK PLANT (AST) WQS

Project No.: 4629.05

Tech: RLB

Date: 3-28-06

WELL ID:	METER ACCURACY RANGE				
MW10	+/- 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)
11:11	—	—	—	108	1.90
11:13	—	—	—	103	1.46
11:15	—	—	—	101	1.76
11:17	—	—	—	100	1.91
11:19	—	—	—	101	1.89

WELL ID: MW7					
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:41	—	—	—	56	1.33
11:43	—	—	—	55	1.73
11:45	—	—	—	52	1.85
11:47	—	—	—	51	1.80

WELL ID: MW9					
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
12:45	—	—	—	ur	1.59
12:47	—	—	—	ur	1.17
12:49	—	—	—	ur	1.06
12:51	—	—	—	ur	0.79

WELL ID: MW21					
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
1:31	—	—	—	ur	0.74
1:33	—	—	—	ur	0.39
1:35	—	—	—	ur	0.40

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: BULK PLANT (AST) W&S

Project No.: 4639.05

Tech: RLD

Date: 3-28-06

WELL ID: MW14		WELL ID: MW11		WELL ID: MW17D		WELL ID: MW17S		WELL ID: MW10		WELL ID: MW7	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
8:25	7.15	8:30	10.38	8:35	6.03	8:40	2.91	8:45	5.13	8:50	3.86
8:55	7.15	9:00	10.38	9:05	6.03	9:20	2.91	11:00	5.13	11:35	3.86

WELL ID: MW9		WELL ID: MW21		WELL ID: MW3		WELL ID: MW26		WELL ID: MW31		WELL ID: MW32	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
12:00	4.33	12:05	5.32	10:39	3.98	10:41	3.17	10:42	3.11	10:43	3.82
12:20	4.33	12:25	5.32	10:49	3.98	10:51	3.17	10:52	3.11	10:53	3.82

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)

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

Project Name: Bulk Plant - W&S (AST)
Project No.: 4629.05
Date: 3-28-06
Golbal ID No.: T0602391121
PM: CJW

Tech: SJD/RLD
Mob/Demob time: .25/.50
Travel time: 1.0
Time on site: 10:00
Time off site: 1:40
Mileage: 36

WELL No.:	MW3		MW7		MW9		MW10		MW11	
DIAMETER (in)	4.00		4.00		2.00		2.00		1.00	
SCREENED INTERVAL (ft)	3-20		6-25		3-18		3-18		2-14	
DEPTH TO WATER (ft)	3.98		3.86		4.33		5.13		10.38	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING — FIELD INTRINSICS: pH										
TEMP (°C)										
Ecw (µmohs)										
ORP (mV)	23	24								
DO (mg/L)	1.12	0.30								
OTHER (units)	—									
PURGE: TIME	12:35	12:41								
METHOD (DHP/CB/B)	CAM PUMP									
RATE (Lpm)	0.18									
VOLUME (L)	1.10									
COLOR	CLEAR	YELLOW TINT								
ODOR	STRONG FUEL/SHOE STORE									
INTAKE DEPTH (FEET)	18.0									
SAMPLE: TIME	12:43									
METHOD (DHP/CB/B)	CAM PUMP									
ANALYTES	TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)	0.33									
REMARKS	—									
WELL CONDITION	good		good		good		good		NO BOX LID FAIR	
WASTE DRUMS										

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

REVISED:3/6/2006

REVIEWER

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

Project Name: Bulk Plant - W&S (AST)
Project No.: 4629.05
Date: 3-28-06
Golbal ID No.: T0602391121
PM: CJW

Tech: SJD / RLD
Mob/Demob time: .25/.50
Travel time: 1.0
Time on site: 10:00
Time off site: 1:40
Mileage: 36

WELL No.:	MW14		MW17S		MW17D		MW18		MW21	
DIAMETER (in)	1.00		1.50		1.50		1.50		1.00	
SCREENED INTERVAL (ft)	6-15		15.5-18		22.5-27.5		18.5-21.5		10-12	
DEPTH TO WATER (ft)	7.15		2.91		6.63		—		5.32	
	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL	INITIAL	FINAL
FIELD INTRINSICS: pH										
TEMP (°C)										
Ecw (µmohs)										
ORP (mV)										
DO (mg/L)										
OTHER (units)										
PURGE: TIME										
METHOD (DHP/CB/B)										
RATE (Lpm)										
VOLUME (L)										
COLOR										
ODOR										
INTAKE DEPTH (FEET)										
SAMPLE: TIME										
METHOD (DHP/CB/B)										
ANALYTES	TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC	
TOTAL DRAWDOWN (FEET)										
REMARKS										
WELL CONDITION	NO BOX LID		GOOD 2' OF WATER		GOOD 2' OF WATER		NOT ACCESSIBLE TOO MUCH WATER IN RAVINE		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:3/6/2006

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

Project Name: Bulk Plant - W&S (AST)
Project No.: 4629.05
Date: 3-28-06
Golbal ID No.: T0602391121
PM: CJW

Tech: SJD / RLO
Mob/Demob time: .25/1.50
Travel time: 1.0
Time on site: 10:00
Time off site: 1:40
Mileage: 36

WELL No.:	MW26		MW31		MW32					
DIAMETER (in)	2.00		1.50		1.50					
SCREENED INTERVAL (ft)	5-10		16.5-18		14-15.5					
DEPTH TO WATER (ft)	3.17		3.11		3.82					
	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)	61	75	29	12	17	25				
FIELD INTRINSICS: DO (mg/L)	1.62	1.81	1.46	0.46	1.40	0.56				
FIELD INTRINSICS: OTHER (units)	—		—		—					
PURGE: TIME	11:30	11:40	11:52	11:58	12:13	12:19				
PURGE: METHOD (DHP/CB/B)	CAM PUMP		CAM PUMP		CAM PUMP					
PURGE: RATE (Lpm)	0.20		0.21		0.20					
PURGE: VOLUME (L)	2.0		1.25		1.20					
PURGE: COLOR	CLEAR	CLEAR	CLEAR	LT. BROWN CLOUDY	CLOUDY	LT. BROWN CLOUDY				
PURGE: ODOR	MED. SULFUR		LIGHT RUBBER/FUEL/SULFUR		MED. RUBBER FUEL					
PURGE: INTAKE DEPTH (FEET)	8.0		17.5		15.0					
SAMPLE: TIME	11:42		12:00		12:21					
SAMPLE: METHOD (DHP/CB/B)	CAM PUMP		CAM PUMP		CAM PUMP					
SAMPLE: ANALYTES	TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC		TPHg/BTEX; TPHd w/SGC					
SAMPLE: TOTAL DRAWDOWN (FEET)	0.15		3.17		1.41					
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: BULK PLANT - W35 (AST)
Project No.: 4629.0

Tech: SJD/RLD
Date: 3-28-06

WELL ID:	METER ACCURACY RANGE				
MW26	+/- 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)
11:32	~	~	~	52	1.40
11:34	~	~	~	59	1.49
11:36	~	~	~	68	1.62
11:38	~	~	~	74	1.92
11:40	~	~	~	75	1.81

WELL ID: MW31

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
11:54	~	~	~	13	0.85
11:56	~	~	~	12	0.53
11:58	~	~	~	12	0.46

WELL ID: MW32

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
12:15	~	~	~	23	0.72
12:17	~	~	~	25	0.63
12:19	~	~	~	25	0.56

WELL ID:

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
12:37	~	~	~	22	0.43
12:39	~	~	~	23	0.33
12:41	~	~	~	24	0.30

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: BULK PLANT - WTS (ASI)

Project No.: 4629.0

Tech: SJL

Date: 3-28-06

WELL ID: MW3		WELL ID: MW26		WELL ID: MW31		WELL ID: MW32		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
10:39	3.98	10:41	3.17	10:42	3.11	10:43	3.82				
10:49	3.98	10:51	3.17	10:52	3.11	10:53	3.82				

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; Chris Watt
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: 4629.05
Project Name: W&S - Bulk Plant-AST
Purchase Order Number: task 3035

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: TPHg/BTEX (CONTAINER 9, PRESERVATIVE b)	ANALYSIS: TPHd/mo w/SGC (CONTAINER 7, PRESERVATIVE ------)
	4629-MW-3-W	3-28-06	AM	GW	3	1
	4629-MW-9-W				3	1
	4629-MW-10-W				3	1
	4629-MW-11-W				3	1
	4629-MW-14-W				3	1
	4629-MW-17s-W				3	1
	4629-MW-17d-W				3	1
	4629-MW-21-W				3	1
	4629-MW-26-W		PM		3	1

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

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

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; Chris Watt
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: 4629.05
Project Name: W&S - Bulk Plant-AST
Purchase Order Number: task 3055

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1 (CONTAINER 9, PRESERVATIVE b)	ANALYSIS: TPHd/mo w/SGC (CONTAINER 7, PRESERVATIVE ------)	SAMPLE CONDITION/SPECIAL INSTRUCTIONS
	4629-MW-31-W	3-28-06	AM	GW	3	1	GEOTRACKER
	4629-MW-32-W	↓	↓	↓	3	1	
	4629-QCTB	↓	PM	↓	1		

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

Attachment 3

NORTH COAST LABORATORIES LTD.

November 14, 2005

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

Attn: Accounts Payable

RE: 4629.02, HPI-Bulk Plant-AST

Order No.: 0510567
Invoice No.: 54294
PO No.: TASK 3031
ELAP No. 1247-Expires July 2006

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	4629-MW-3-W
01D	4629-MW-3-W
02A	4629-MW-18-W
02D	4629-MW-18-W
03A	4629-MW-31-W
03D	4629-MW-31-W
04A	4629-MW-32-W
04D	4629-MW-32-W
05A	4629-QCTB

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

LMO
DRG
DNL
GH
GEO
HPI
FRB
CJW

File
Project #

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:** *15-Nov-05*

CLIENT: LACO Associates
Project: 4629.02, HPI-Bulk Plant-AST
Lab Order: 0510567

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 4629-MW-3-W, 4629-MW-31-W and 4629-MW-32-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:
The gasoline values for samples 4629-MW-18-W and 4629-MW-32-W include the reported gasoline components and additives in addition to other peaks in the gasoline range.

The gasoline values for samples 4629-MW-3-W and 4629-MW-31-W include the reported gasoline components in addition to other peaks in the gasoline range.

Some reporting limits were raised for sample 4629-MW-3-W due to matrix interference.

Date: 14-Nov-05
WorkOrder: 0510567

ANALYTICAL REPORT

Client Sample ID: 4629-MW-3-W **Received:** 10/25/05 **Collected:** 10/24/05 0:00
Lab ID: 0510567-01A **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		11/4/05
Tert-butyl alcohol (TBA)	ND	28	µg/L	1.0		11/4/05
Di-isopropyl ether (DIPE)	ND	3.0	µg/L	1.0		11/4/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/4/05
Benzene	460	25	µg/L	50		11/3/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/4/05
Toluene	8.5	0.50	µg/L	1.0		11/4/05
Ethylbenzene	2.2	0.50	µg/L	1.0		11/4/05
m,p-Xylene	8.1	0.50	µg/L	1.0		11/4/05
o-Xylene	1.3	0.50	µg/L	1.0		11/4/05
Surrogate: 1,4-Dichlorobenzene-d4	103	80.8-139	% Rec	1.0		11/4/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	1,800	50	µg/L	1.0		11/4/05

Client Sample ID: 4629-MW-3-W **Received:** 10/25/05 **Collected:** 10/24/05 0:00
Lab ID: 0510567-01D **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)	110	50	µg/L	1.0	11/5/05	11/11/05
Surrogate: N-Tricosane	49.0	38-129	% Rec	1.0	11/5/05	11/11/05

Date: 14-Nov-05
WorkOrder: 0510567

ANALYTICAL REPORT

Client Sample ID: 4629-MW-18-W **Received:** 10/25/05 **Collected:** 10/24/05 0:00
Lab ID: 0510567-02A **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		11/4/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/4/05
Di-isopropyl ether (DIPE)	130	50	µg/L	50		11/4/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/4/05
Benzene	1.4	0.50	µg/L	1.0		11/4/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/4/05
Toluene	23	0.50	µg/L	1.0		11/4/05
Ethylbenzene	3.6	0.50	µg/L	1.0		11/4/05
m,p-Xylene	11	0.50	µg/L	1.0		11/4/05
o-Xylene	4.8	0.50	µg/L	1.0		11/4/05
Surrogate: 1,4-Dichlorobenzene-d4	110	80.8-139	% Rec	1.0		11/4/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	330	50	µg/L	1.0		11/4/05

Client Sample ID: 4629-MW-18-W **Received:** 10/25/05 **Collected:** 10/24/05 0:00
Lab ID: 0510567-02D **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	11/5/05	11/11/05
Surrogate: N-Tricosane	42.1	38-129	% Rec	1.0	11/5/05	11/11/05

Date: 14-Nov-05
WorkOrder: 0510567

ANALYTICAL REPORT

Client Sample ID: 4629-MW-31-W **Received:** 10/25/05 **Collected:** 10/24/05 0:00
Lab ID: 0510567-03A **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		11/4/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/4/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/4/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/4/05
Benzene	260	25	µg/L	50		11/3/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/4/05
Toluene	15	0.50	µg/L	1.0		11/4/05
Ethylbenzene	3.4	0.50	µg/L	1.0		11/4/05
m,p-Xylene	8.3	0.50	µg/L	1.0		11/4/05
o-Xylene	3.3	0.50	µg/L	1.0		11/4/05
Surrogate: 1,4-Dichlorobenzene-d4	98.8	80.8-139	% Rec	1.0		11/4/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	1,400	50	µg/L	1.0		11/4/05

Client Sample ID: 4629-MW-31-W **Received:** 10/25/05 **Collected:** 10/24/05 0:00
Lab ID: 0510567-03D **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)	84	50	µg/L	1.0	11/5/05	11/11/05
Surrogate: N-Tricosane	48.1	38-129	% Rec	1.0	11/5/05	11/11/05

Date: 14-Nov-05
WorkOrder: 0510567

ANALYTICAL REPORT

Client Sample ID: 4629-MW-32-W **Received:** 10/25/05 **Collected:** 10/24/05 0:00
Lab ID: 0510567-04A **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		11/4/05
Tert-butyl alcohol (TBA)	30	10	µg/L	1.0		11/4/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/4/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/4/05
Benzene	530	25	µg/L	50		11/3/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/4/05
Toluene	6.2	0.50	µg/L	1.0		11/4/05
Ethylbenzene	1.7	0.50	µg/L	1.0		11/4/05
m,p-Xylene	3.0	0.50	µg/L	1.0		11/4/05
o-Xylene	0.92	0.50	µg/L	1.0		11/4/05
Surrogate: 1,4-Dichlorobenzene-d4	102	80.8-139	% Rec	1.0		11/4/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	1,600	50	µg/L	1.0		11/4/05

Client Sample ID: 4629-MW-32-W **Received:** 10/25/05 **Collected:** 10/24/05 0:00
Lab ID: 0510567-04D **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)	260	50	µg/L	1.0	11/5/05	11/11/05
Surrogate: N-Tricosane	48.7	38-129	% Rec	1.0	11/5/05	11/11/05

Date: 14-Nov-05
WorkOrder: 0510567

ANALYTICAL REPORT

Client Sample ID: 4629-QCTB **Received:** 10/25/05 **Collected:** 10/24/05 0:00
Lab ID: 0510567-05A **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		11/3/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		11/3/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		11/3/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		11/3/05
Benzene	ND	0.50	µg/L	1.0		11/3/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		11/3/05
Toluene	ND	0.50	µg/L	1.0		11/3/05
Ethylbenzene	ND	0.50	µg/L	1.0		11/3/05
m,p-Xylene	ND	0.50	µg/L	1.0		11/3/05
o-Xylene	ND	0.50	µg/L	1.0		11/3/05
Surrogate: 1,4-Dichlorobenzene-d4	101	80.8-139	% Rec	1.0		11/3/05

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		11/3/05

North Coast Laboratories, Ltd.

Date: 14-Nov-05

CLIENT: LACO Associates
Work Order: 0510567
Project: 4629.02, HPI-Bulk Plant-AST

QC SUMMARY REPORT

Method Blank

Sample ID **MB 110305** Batch ID: **R37844** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **11/3/05 8:13:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_051103B** SeqNo: **544838**

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	0.2664	0.50									J
Ethylbenzene	0.08397	0.50									J
m,p-Xylene	0.1104	0.50									J
o-Xylene	0.1208	0.50									J
1,4-Dichlorobenzene-d4	1.03	0.10	1.00	0	103%	81	139	0			

Sample ID **MB 110305** Batch ID: **R37843** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **11/3/05 8:13:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_051103A** SeqNo: **544817**

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

Sample ID **MB-14593** Batch ID: **14593** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **11/11/05 6:28:10 PM** Prep Date **11/5/05**
Client ID: Run ID: **ORGC5_051111A** SeqNo: **547130**

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	27.8	0.10	50.0	0	55.7%	38	129	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: 14-Nov-05

CLIENT: LACO Associates
Work Order: 0510567
Project: 4629.02, HPI-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05702** Batch ID: **R37844** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **11/3/05 4:12:00 AM** Prep Date

Client ID: Run ID: **ORGCMS2_051103B** SeqNo: **544835**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21.10	1.0	20.0	0	106%	80	120	0			
Tert-butyl alcohol (TBA)	480.6	10	400	0	120%	25	162	0			
Di-isopropyl ether (DIPE)	21.38	1.0	20.0	0	107%	80	120	0			
Ethyl tert-butyl ether (ETBE)	19.45	1.0	20.0	0	97.3%	77	120	0			
Benzene	21.52	0.50	20.0	0	108%	78	117	0			
Tert-amyl methyl ether (TAME)	19.70	1.0	20.0	0	98.5%	64	136	0			
Toluene	20.73	0.50	20.0	0	104%	80	120	0			
Ethylbenzene	21.01	0.50	20.0	0	105%	80	120	0			
m,p-Xylene	42.33	0.50	40.0	0	106%	80	120	0			
o-Xylene	20.76	0.50	20.0	0	104%	80	120	0			
1,4-Dichlorobenzene-d4	1.19	0.10	1.00	0	119%	81	139	0			

Sample ID **LCSD-05702** Batch ID: **R37844** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **11/3/05 4:42:00 AM** Prep Date

Client ID: Run ID: **ORGCMS2_051103B** SeqNo: **544836**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20.59	1.0	20.0	0	103%	80	120	21.1	2.48%	20	
Tert-butyl alcohol (TBA)	418.4	10	400	0	105%	25	162	481	13.9%	20	
Di-isopropyl ether (DIPE)	21.42	1.0	20.0	0	107%	80	120	21.4	0.225%	20	
Ethyl tert-butyl ether (ETBE)	19.13	1.0	20.0	0	95.7%	77	120	19.4	1.68%	20	
Benzene	21.52	0.50	20.0	0	108%	78	117	21.5	0.00865%	20	
Tert-amyl methyl ether (TAME)	19.22	1.0	20.0	0	96.1%	64	136	19.7	2.46%	20	
Toluene	20.60	0.50	20.0	0	103%	80	120	20.7	0.655%	20	
Ethylbenzene	20.67	0.50	20.0	0	103%	80	120	21.0	1.63%	20	
m,p-Xylene	42.47	0.50	40.0	0	106%	80	120	42.3	0.344%	20	
o-Xylene	20.87	0.50	20.0	0	104%	80	120	20.8	0.537%	20	
1,4-Dichlorobenzene-d4	1.18	0.10	1.00	0	118%	81	139	1.19	1.54%	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: 0510567
Project: 4629.02, HPI-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05703** Batch ID: **R37843** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **11/3/05 6:13:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_051103A** SeqNo: **544814**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	983.8	50	1,000	0	98.4%	80	120	0			

Sample ID **LCSD-05703** Batch ID: **R37843** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **11/3/05 6:43:00 AM** Prep Date
Client ID: Run ID: **ORGCMS2_051103A** SeqNo: **544815**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,001	50	1,000	0	100%	80	120	984	1.71%	20	

Sample ID **LCS-14593** Batch ID: **14593** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **11/11/05 4:35:11 PM** Prep Date **11/5/05**
Client ID: Run ID: **ORGC5_051111A** SeqNo: **547128**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	376.7	50	500	0	75.3%	41	96	0			
N-Tricosane	39.6	0.10	50.0	0	79.1%	38	129	0			

Sample ID **LCSD-14593** Batch ID: **14593** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **11/11/05 5:03:20 PM** Prep Date **11/5/05**
Client ID: Run ID: **ORGC5_051111A** SeqNo: **547129**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	338.8	50	500	0	67.8%	41	96	377	10.6%	15	
N-Tricosane	35.7	0.10	50.0	0	71.4%	38	129	39.6	10.3%	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: 0510567

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; Chris Watt
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: 4629.02
Project Name: HPI - Bulk Plant-AST
Purchase Order Number: task 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1 (CONTAINER 9, PRESERVATIVE b)	ANALYSIS: TPHd w/SGC (CONTAINER 7, PRESERVATIVE ------)
	4629-MW-3-W	10-24-05	Am	GW	3	1
	4629-MW-18-W	↓	↓	↓	3	1
	4629-MW-31-W				3	1
	4629-MW-32-W				3	1
	4629-QCTB	↓	Pm	↓	1	

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

Coldintact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	10-25-05		10/25/05 1010

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.

DEC 19 2005

December 15, 2005

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

Attn: Accounts Payable

RE: 4629.02, HPI - Bulk Plant-AST

Order No.: 0511530
Invoice No.: 55016
PO No.: TASK 3031
ELAP No. 1247-Expires July 2006

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	4629-MW-3-W
01D	4629-MW-3-W
02A	4629-MW-31-W
02D	4629-MW-31-W
03A	4629-MW-32-W
03D	4629-MW-32-W
04A	4629-QCTB
05A	4629-QCMB
06A	4629-QCFD

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

LMO
DRG
DNL
GH
GEO
HPI
FRB
GW

File
Project #

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:** *15-Dec-05*

CLIENT: LACO Associates
Project: 4629.02, HPI - Bulk Plant-AST
Lab Order: 0511530

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 4629-MW-3-W, 4629-MW-31-W and 4629-MW-32-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:
The gasoline values for samples 4629-MW-3-W, 4629-MW-31-W, 4629-MW-32-W and 4629-QCFD include the reported gasoline components in addition to other peaks in the gasoline range.

Some reporting limits were raised for samples 4629-MW-3-W and 4629-QCFD due to matrix interference.

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

Date: 15-Dec-05
WorkOrder: 0511530

ANALYTICAL REPORT

Client Sample ID: 4629-MW-3-W **Received:** 11/17/05 **Collected:** 11/17/05 0:00
Lab ID: 0511530-01A **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		12/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		12/1/05
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1.0		12/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/1/05
Benzene	400	25	µg/L	50		12/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/1/05
Toluene	6.1	0.50	µg/L	1.0		12/1/05
Ethylbenzene	1.2	0.50	µg/L	1.0		12/1/05
m,p-Xylene	4.1	0.50	µg/L	1.0		12/1/05
o-Xylene	ND	0.50	µg/L	1.0		12/1/05
Surrogate: 1,4-Dichlorobenzene-d4	104	80.8-139	% Rec	1.0		12/1/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	1,700	50	µg/L	1.0		12/1/05

Client Sample ID: 4629-MW-3-W **Received:** 11/17/05 **Collected:** 11/17/05 0:00
Lab ID: 0511530-01D **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)	89	50	µg/L	1.0	12/1/05	12/15/05
Surrogate: N-Tricosane	50.3	38-129	% Rec	1.0	12/1/05	12/15/05

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

Date: 15-Dec-05
WorkOrder: 0511530

ANALYTICAL REPORT

Client Sample ID: 4629-MW-31-W **Received:** 11/17/05 **Collected:** 11/17/05 0:00
Lab ID: 0511530-02A **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		12/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		12/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		12/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/1/05
Benzene	240	25	µg/L	50		12/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/1/05
Toluene	3.6	0.50	µg/L	1.0		12/1/05
Ethylbenzene	1.1	0.50	µg/L	1.0		12/1/05
m,p-Xylene	1.4	0.50	µg/L	1.0		12/1/05
o-Xylene	ND	0.50	µg/L	1.0		12/1/05
Surrogate: 1,4-Dichlorobenzene-d4	104	80.8-139	% Rec	1.0		12/1/05

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		12/1/05

Client Sample ID: 4629-MW-31-W **Received:** 11/17/05 **Collected:** 11/17/05 0:00
Lab ID: 0511530-02D **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)	110	50	µg/L	1.0	12/1/05	12/15/05
Surrogate: N-Tricosane	59.1	38-129	% Rec	1.0	12/1/05	12/15/05

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

Date: 15-Dec-05
WorkOrder: 0511530

ANALYTICAL REPORT

Client Sample ID: 4629-MW-32-W **Received:** 11/17/05 **Collected:** 11/17/05 0:00
Lab ID: 0511530-03A **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		12/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		12/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		12/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/1/05
Benzene	490	25	µg/L	50		12/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/1/05
Toluene	7.9	0.50	µg/L	1.0		12/1/05
Ethylbenzene	2.3	0.50	µg/L	1.0		12/1/05
m,p-Xylene	3.1	0.50	µg/L	1.0		12/1/05
o-Xylene	0.88	0.50	µg/L	1.0		12/1/05
Surrogate: 1,4-Dichlorobenzene-d4	102	80.8-139	% Rec	1.0		12/1/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	2,100	50	µg/L	1.0		12/1/05

Client Sample ID: 4629-MW-32-W **Received:** 11/17/05 **Collected:** 11/17/05 0:00
Lab ID: 0511530-03D **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)	110	50	µg/L	1.0	12/1/05	12/15/05
Surrogate: N-Tricosane	38.5	38-129	% Rec	1.0	12/1/05	12/15/05

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

Date: 15-Dec-05
WorkOrder: 0511530

ANALYTICAL REPORT

Client Sample ID: 4629-QCTB **Received:** 11/17/05 **Collected:** 11/17/05 0:00
Lab ID: 0511530-04A **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		12/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		12/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		12/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/1/05
Benzene	ND	0.50	µg/L	1.0		12/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/1/05
Toluene	ND	0.50	µg/L	1.0		12/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		12/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		12/1/05
o-Xylene	ND	0.50	µg/L	1.0		12/1/05
Surrogate: 1,4-Dichlorobenzene-d4	107	80.8-139	% Rec	1.0		12/1/05

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		12/1/05

Client Sample ID: 4629-QCMB **Received:** 11/17/05 **Collected:** 11/17/05 0:00
Lab ID: 0511530-05A **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		12/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		12/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		12/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/1/05
Benzene	5.7	0.50	µg/L	1.0		12/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/1/05
Toluene	ND	0.50	µg/L	1.0		12/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		12/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		12/1/05
o-Xylene	ND	0.50	µg/L	1.0		12/1/05
Surrogate: 1,4-Dichlorobenzene-d4	107	80.8-139	% Rec	1.0		12/1/05

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		12/1/05

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

Date: 15-Dec-05
WorkOrder: 0511530

ANALYTICAL REPORT

Client Sample ID: 4629-QCFD **Received:** 11/17/05 **Collected:** 11/17/05 0:00
Lab ID: 0511530-06A **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		12/1/05
Tert-butyl alcohol (TBA)	ND	20	µg/L	1.0		12/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		12/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/1/05
Benzene	520	25	µg/L	50		12/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/1/05
Toluene	8.3	0.50	µg/L	1.0		12/1/05
Ethylbenzene	2.4	0.50	µg/L	1.0		12/1/05
m,p-Xylene	3.3	0.50	µg/L	1.0		12/1/05
o-Xylene	0.85	0.50	µg/L	1.0		12/1/05
Surrogate: 1,4-Dichlorobenzene-d4	102	80.8-139	% Rec	1.0		12/1/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	2,100	50	µg/L	1.0		12/1/05

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

North Coast Laboratories, Ltd.

Date: 15-Dec-05

CLIENT: LACO Associates
Work Order: 0511530
Project: 4629.02, HPI - Bulk Plant-AST

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-12/1/05** Batch ID: **R38351** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **12/2/05 12:19:00 PM** Prep Date:
Client ID: Run ID: **ORGCMS3_051201B** SeqNo: **552543**

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	ND	0.50									
Ethylbenzene	0.08637	0.50									J
m,p-Xylene	0.1586	0.50									J
o-Xylene	ND	0.50									
1,4-Dichlorobenzene-d4	1.05	0.10	1.00	0	105%	81	139	0			

Sample ID: **MB-12/1/05** Batch ID: **R38350** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **12/2/05 12:19:00 PM** Prep Date:
Client ID: Run ID: **ORGCMS3_051201A** SeqNo: **552521**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	25.24	50									J

Sample ID: **MB-14760** Batch ID: **14760** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **12/14/05 10:44:31 PM** Prep Date: **12/1/05**
Client ID: Run ID: **ORGC5_051214A** SeqNo: **555791**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	46.39	50									J
N-Tricosane	36.4	0.10	50.0	0	72.7%	38	129	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: 15-Dec-05

CLIENT: LACO Associates
Work Order: 0511530
Project: 4629.02, HPI - Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05763** Batch ID: **R38351** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **12/1/05 9:20:00 AM** Prep Date:

Client ID: Run ID: **ORGCMS3_051201B** SeqNo: **552540**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.35	1.0	20.0	0	96.7%	80	120	0			
Tert-butyl alcohol (TBA)	399.2	10	400	0	99.8%	25	162	0			
Di-isopropyl ether (DIPE)	19.61	1.0	20.0	0	98.1%	80	120	0			
Ethyl tert-butyl ether (ETBE)	18.86	1.0	20.0	0	94.3%	77	120	0			
Benzene	21.06	0.50	20.0	0	105%	78	117	0			
Tert-amyl methyl ether (TAME)	18.29	1.0	20.0	0	91.4%	64	136	0			
Toluene	20.50	0.50	20.0	0	103%	80	120	0			
Ethylbenzene	19.29	0.50	20.0	0	96.5%	80	120	0			
m,p-Xylene	39.60	0.50	40.0	0	99.0%	80	120	0			
o-Xylene	18.36	0.50	20.0	0	91.8%	80	120	0			
1,4-Dichlorobenzene-d4	1.12	0.10	1.00	0	112%	81	139	0			

Sample ID: **LCSD-05763** Batch ID: **R38351** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **12/1/05 9:46:00 AM** Prep Date:

Client ID: Run ID: **ORGCMS3_051201B** SeqNo: **552541**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.22	1.0	20.0	0	96.1%	80	120	19.4	0.672%	20	
Tert-butyl alcohol (TBA)	406.8	10	400	0	102%	25	162	399	1.88%	20	
Di-isopropyl ether (DIPE)	19.31	1.0	20.0	0	96.6%	80	120	19.6	1.54%	20	
Ethyl tert-butyl ether (ETBE)	18.56	1.0	20.0	0	92.8%	77	120	18.9	1.59%	20	
Benzene	20.61	0.50	20.0	0	103%	78	117	21.1	2.19%	20	
Tert-amyl methyl ether (TAME)	18.27	1.0	20.0	0	91.3%	64	136	18.3	0.109%	20	
Toluene	20.36	0.50	20.0	0	102%	80	120	20.5	0.682%	20	
Ethylbenzene	19.32	0.50	20.0	0	96.6%	80	120	19.3	0.171%	20	
m,p-Xylene	39.47	0.50	40.0	0	98.7%	80	120	39.6	0.323%	20	
o-Xylene	18.52	0.50	20.0	0	92.6%	80	120	18.4	0.863%	20	
1,4-Dichlorobenzene-d4	1.12	0.10	1.00	0	112%	81	139	1.12	0.543%	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: 0511530
Project: 4629.02, HPI - Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05764** Batch ID: **R38350** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **12/1/05 10:37:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051201A** SeqNo: **552518**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	843.9	50	1,000	0	84.4%	80	120	0			

Sample ID: **LCSD-05764** Batch ID: **R38350** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **12/1/05 11:02:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_051201A** SeqNo: **552519**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	832.9	50	1,000	0	83.3%	80	120	844	1.31%	20	

Sample ID: **LCS-14760** Batch ID: **14760** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **12/14/05 8:53:15 PM** Prep Date: **12/1/05**
Client ID: Run ID: **ORGC5_051214A** SeqNo: **555788**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	333.3	50	500	0	66.7%	41	96	0			
N-Tricosane	38.0	0.10	50.0	0	75.9%	38	129	0			

Sample ID: **LCSD-14760** Batch ID: **14760** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **12/14/05 9:15:30 PM** Prep Date: **12/1/05**
Client ID: Run ID: **ORGC5_051214A** SeqNo: **555789**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	363.6	50	500	0	72.7%	41	96	333	8.69%	15	
N-Tricosane	41.8	0.10	50.0	0	83.6%	38	129	38.0	9.59%	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: 0511530

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; Chris Watt
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: 4629.02
Project Name: HPI - Bulk Plant-AST
Purchase Order Number: task 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1	ANALYSIS: TPHd w/SGC	CONTAINER	PRESERVATIVE
	4629-MW-3-W	11-17-05	AM	GW	3	1	9	b
	4629-MW-31-W				3	1		
	4629-MW-32-W				3	1		
	4629-QCTB				1			
	4629-QCMB				3			
	4629-QCFD				3			

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

Cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	11-17-05 4:40 pm		11/17/05 1640

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
JAN 0 9 2006
BY: HP

NORTH COAST LABORATORIES LTD.

January 04, 2006

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

Order No.: 0512432
Invoice No.: 55390
PO No.: TASK 3031
ELAP No. 1247-Expires July 2006

Attn: Accounts Payable

RE: 4629.02, HPI-Bulk Plant-AST

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	4629-MW-3-W
01D	4629-MW-3-W
02A	4629-MW-31-W
02D	4629-MW-31-W
03A	4629-MW-32-W
03D	4629-MW-32-W
04A	4629-QCTB

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

LMO
DRG
DNL
GH
GEO
HPI
FRB
CJW

File
Project #

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:** *04-Jan-06*

CLIENT: LACO Associates
Project: 4629.02, HPI-Bulk Plant-AST
Lab Order: 0512432

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 4629-MW-31-W and 4629-MW-32-W contain some material lighter than diesel. However, some of this material extends into the diesel range of molecular weights.

Samples 4629-MW-3-W, 4629-MW-31-W and 4629-MW-32-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:
The gasoline values for samples 4629-MW3-W, 4629-MW-31-W and 4629-MW-32-W include the reported gasoline components in addition to other peaks in the gasoline range.

Some reporting limits were raised for sample 4629-MW-32-W due to matrix interference.

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

Date: 04-Jan-06
WorkOrder: 0512432

ANALYTICAL REPORT

Client Sample ID: 4629-MW-3-W **Received:** 12/16/05 **Collected:** 12/8/05 0:00
Lab ID: 0512432-01A **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		12/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		12/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		12/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/20/05
Benzene	76	0.50	µg/L	1.0		12/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/20/05
Toluene	1.0	0.50	µg/L	1.0		12/20/05
Ethylbenzene	ND	0.50	µg/L	1.0		12/20/05
m,p-Xylene	0.68	0.50	µg/L	1.0		12/20/05
o-Xylene	ND	0.50	µg/L	1.0		12/20/05
Surrogate: 1,4-Dichlorobenzene-d4	106	80.8-139	% Rec	1.0		12/20/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	310	50	µg/L	1.0		12/20/05

Client Sample ID: 4629-MW-3-W **Received:** 12/16/05 **Collected:** 12/8/05 0:00
Lab ID: 0512432-01D **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)	55	50	µg/L	1.0	12/21/05	1/3/06
Surrogate: N-Tricosane	68.7	38-129	% Rec	1.0	12/21/05	1/3/06

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

Date: 04-Jan-06
WorkOrder: 0512432

ANALYTICAL REPORT

Client Sample ID: 4629-MW-31-W **Received:** 12/16/05 **Collected:** 12/8/05 0:00
Lab ID: 0512432-02A **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		12/20/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		12/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		12/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/20/05
Benzene	200	25	µg/L	50		12/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/20/05
Toluene	3.0	0.50	µg/L	1.0		12/20/05
Ethylbenzene	0.96	0.50	µg/L	1.0		12/20/05
m,p-Xylene	1.2	0.50	µg/L	1.0		12/20/05
o-Xylene	ND	0.50	µg/L	1.0		12/20/05
Surrogate: 1,4-Dichlorobenzene-d4	106	80.8-139	% Rec	1.0		12/20/05

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		12/20/05

Client Sample ID: 4629-MW-31-W **Received:** 12/16/05 **Collected:** 12/8/05 0:00
Lab ID: 0512432-02D **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)	140	50	µg/L	1.0	12/21/05	1/3/06
Surrogate: N-Tricosane	76.3	38-129	% Rec	1.0	12/21/05	1/3/06

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

Date: 04-Jan-06
WorkOrder: 0512432

ANALYTICAL REPORT

Client Sample ID: 4629-MW-32-W **Received:** 12/16/05 **Collected:** 12/8/05 0:00
Lab ID: 0512432-03A **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		12/20/05
Tert-butyl alcohol (TBA)	ND	20	µg/L	1.0		12/20/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		12/20/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/20/05
Benzene	450	25	µg/L	50		12/20/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/20/05
Toluene	7.2	0.50	µg/L	1.0		12/20/05
Ethylbenzene	2.0	0.50	µg/L	1.0		12/20/05
m,p-Xylene	2.8	0.50	µg/L	1.0		12/20/05
o-Xylene	0.76	0.50	µg/L	1.0		12/20/05
Surrogate: 1,4-Dichlorobenzene-d4	104	80.8-139	% Rec	1.0		12/20/05

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	2,000	50	µg/L	1.0		12/20/05

Client Sample ID: 4629-MW-32-W **Received:** 12/16/05 **Collected:** 12/8/05 0:00
Lab ID: 0512432-03D **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)	190	50	µg/L	1.0	12/21/05	1/3/06
Surrogate: N-Tricosane	76.0	38-129	% Rec	1.0	12/21/05	1/3/06

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

Date: 04-Jan-06
WorkOrder: 0512432

ANALYTICAL REPORT

Client Sample ID: 4629-QCTB **Received:** 12/16/05 **Collected:** 12/8/05 0:00
Lab ID: 0512432-04A **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		12/19/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		12/19/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		12/19/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		12/19/05
Benzene	ND	0.50	µg/L	1.0		12/19/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		12/19/05
Toluene	ND	0.50	µg/L	1.0		12/19/05
Ethylbenzene	ND	0.50	µg/L	1.0		12/19/05
m,p-Xylene	ND	0.50	µg/L	1.0		12/19/05
o-Xylene	ND	0.50	µg/L	1.0		12/19/05
Surrogate: 1,4-Dichlorobenzene-d4	107	80.8-139	% Rec	1.0		12/19/05

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		12/19/05

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

North Coast Laboratories, Ltd.

Date: 04-Jan-06

CLIENT: LACO Associates
Work Order: 0512432
Project: 4629.02, HPI-Bulk Plant-AST

QC SUMMARY REPORT

Method Blank

Sample ID **MB 121905** Batch ID: **R38716** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **12/19/05 6:26:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_051219B** SeqNo: **557167**

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	ND	0.50									
Ethylbenzene	0.08590	0.50									J
m,p-Xylene	0.1643	0.50									J
o-Xylene	ND	0.50									
1,4-Dichlorobenzene-d4	1.07	0.10	1.00	0	107%	81	139	0			

Sample ID **MB 121905** Batch ID: **R38715** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **12/19/05 6:26:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_051219A** SeqNo: **557144**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	27.91	50									J

Sample ID **MB-14883** Batch ID: **14883** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **1/3/06 6:36:37 PM** Prep Date **12/21/05**
Client ID: Run ID: **ORGC5_060103A** SeqNo: **560182**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	39.46	50									J
N-Tricosane	43.3	0.10	50.0	0	86.5%	38	129	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-Jan-06

CLIENT: LACO Associates
Work Order: 0512432
Project: 4629.02, HPI-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05802** Batch ID: **R38716** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **12/19/05 2:58:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_051219B** SeqNo: **557164**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.98	1.0	20.0	0	99.9%	80	120	0			
Tert-butyl alcohol (TBA)	395.2	10	400	0	98.8%	25	162	0			
Di-isopropyl ether (DIPE)	19.85	1.0	20.0	0	99.3%	80	120	0			
Ethyl tert-butyl ether (ETBE)	19.44	1.0	20.0	0	97.2%	77	120	0			
Benzene	21.11	0.50	20.0	0	106%	78	117	0			
Tert-amyl methyl ether (TAME)	19.32	1.0	20.0	0	96.6%	64	136	0			
Toluene	19.85	0.50	20.0	0	99.2%	80	120	0			
Ethylbenzene	18.88	0.50	20.0	0	94.4%	80	120	0			
m,p-Xylene	38.43	0.50	40.0	0	96.1%	80	120	0			
o-Xylene	17.97	0.50	20.0	0	89.9%	80	120	0			
1,4-Dichlorobenzene-d4	1.10	0.10	1.00	0	110%	81	139	0			

Sample ID **LCSD-05802** Batch ID: **R38716** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **12/19/05 3:23:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_051219B** SeqNo: **557165**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20.21	1.0	20.0	0	101%	80	120	20.0	1.15%	20	
Tert-butyl alcohol (TBA)	409.8	10	400	0	102%	25	162	395	3.63%	20	
Di-isopropyl ether (DIPE)	20.28	1.0	20.0	0	101%	80	120	19.8	2.16%	20	
Ethyl tert-butyl ether (ETBE)	19.83	1.0	20.0	0	99.1%	77	120	19.4	1.98%	20	
Benzene	21.38	0.50	20.0	0	107%	78	117	21.1	1.26%	20	
Tert-amyl methyl ether (TAME)	19.42	1.0	20.0	0	97.1%	64	136	19.3	0.534%	20	
Toluene	20.16	0.50	20.0	0	101%	80	120	19.8	1.58%	20	
Ethylbenzene	19.27	0.50	20.0	0	96.3%	80	120	18.9	2.06%	20	
m,p-Xylene	39.04	0.50	40.0	0	97.6%	80	120	38.4	1.58%	20	
o-Xylene	18.18	0.50	20.0	0	90.9%	80	120	18.0	1.17%	20	
1,4-Dichlorobenzene-d4	1.10	0.10	1.00	0	110%	81	139	1.10	0.654%	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: 0512432
Project: 4629.02, HPI-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-05803** Batch ID: **R38715** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **12/19/05 4:44:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_051219A** SeqNo: **557141**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	877.3	50	1,000	0	87.7%	80	120	0			

Sample ID **LCSD-05803** Batch ID: **R38715** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **12/19/05 5:10:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_051219A** SeqNo: **557142**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	860.6	50	1,000	0	86.1%	80	120	877	1.93%	20	

Sample ID **LCS-14883** Batch ID: **14883** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **1/3/06 5:08:52 PM** Prep Date **12/21/05**
Client ID: Run ID: **ORGC5_060103A** SeqNo: **560180**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	352.4	50	500	0	70.5%	41	96	0			
N-Tricosane	43.5	0.10	50.0	0	87.0%	38	129	0			

Sample ID **LCSD-14883** Batch ID: **14883** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date **1/3/06 5:30:45 PM** Prep Date **12/21/05**
Client ID: Run ID: **ORGC5_060103A** SeqNo: **560181**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	350.8	50	500	0	70.2%	41	96	352	0.461%	15	
N-Tricosane	41.7	0.10	50.0	0	83.4%	38	129	43.5	4.15%	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: 0512432

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; Chris Watt

Sampler (Sign & Print): SJD Stwt

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: 4629.02
Project Name: HPI - Bulk Plant-AST
Purchase Order Number: task 3031

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1 (CONTAINER 9, PRESERVATIVE b)	ANALYSIS: TPHd w/SGC (CONTAINER 7, PRESERVATIVE ------)
	4629-MW-3-W	12-8-05	AM	GW	3	1
	4629-MW-31-W	↓	↓	↓	3	1
	4629-MW-32-W	↓	↓	↓	3	1
	4629-QCTB	↓	PM	↓	1	

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Stwt STEVE DAVIS	12/16/05 1110 AM	[signature]	12/16/05 1110

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.

February 08, 2006

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

Attn: Accounts Payable

RE: 4629.02, WSE-Bulk Plant-AST

Order No.: 0601440
Invoice No.: 56123
PO No.: TASK 3035
ELAP No. 1247-Expires July 2006

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	4629-MW-3-W
01B	4629-MW-3-W
01D	4629-MW-3-W
03A	4629-MW-31-W
03B	4629-MW-31-W
03D	4629-MW-31-W
04A	4629-MW-32-W
04B	4629-MW-32-W
04D	4629-MW-32-W
05A	4629-QCTB

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

LMO
DRG
DNL
GH
GEO
HPI
FRB
@ JW

File
Project #

REPORT CERTIFIED BY

Collen Blackston — 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

Printed on Recycled Paper

North Coast Laboratories, Ltd. **Date:** *08-Feb-06*

CLIENT: LACO Associates
Project: 4629.02, WSE-Bulk Plant-AST
Lab Order: 0601440

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 4629-MW-3-W, 4629-MW-31-W and 4629-MW-32-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:
The gasoline values for samples 4629-MW-3-W, 4629-MW-31-W and 4629-MW-32-W include the reported gasoline components and additives in addition to other peaks in the gasoline range.

Some reporting limits were raised for sample 4629-MW-3-W due to matrix interference.

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries were above the upper acceptance limit for benzene. These recoveries indicate that the sample results may be erroneously high.

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

Date: 08-Feb-06
WorkOrder: 0601440

ANALYTICAL REPORT

Client Sample ID: 4629-MW-3-W **Received:** 1/25/06 **Collected:** 1/25/06 0:00
Lab ID: 0601440-01A **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		2/7/06
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/7/06
Di-isopropyl ether (DIPE)	ND	2.0	µg/L	1.0		2/7/06
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/7/06
Benzene	400	25	µg/L	50		2/7/06
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		2/7/06
Toluene	6.0	0.50	µg/L	1.0		2/7/06
Ethylbenzene	1.2	0.50	µg/L	1.0		2/7/06
m,p-Xylene	4.1	0.50	µg/L	1.0		2/7/06
o-Xylene	ND	0.50	µg/L	1.0		2/7/06
Surrogate: 1,4-Dichlorobenzene-d4	105	80.8-139	% Rec	1.0		2/7/06

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	1,800	50	µg/L	1.0		2/7/06

Client Sample ID: 4629-MW-3-W **Received:** 1/25/06 **Collected:** 1/25/06 0:00
Lab ID: 0601440-01D **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)	90	50	µg/L	1.0	1/31/06	2/6/06
Surrogate: N-Tricosane	53.1	38-129	% Rec	1.0	1/31/06	2/6/06

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

Date: 08-Feb-06
WorkOrder: 0601440

ANALYTICAL REPORT

Client Sample ID: 4629-MW-31-W **Received:** 1/25/06 **Collected:** 1/25/06 0:00
Lab ID: 0601440-03A **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		2/7/06
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/7/06
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/7/06
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/7/06
Benzene	140	25	µg/L	50		2/7/06
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		2/7/06
Toluene	1.9	0.50	µg/L	1.0		2/7/06
Ethylbenzene	0.66	0.50	µg/L	1.0		2/7/06
m,p-Xylene	0.92	0.50	µg/L	1.0		2/7/06
o-Xylene	ND	0.50	µg/L	1.0		2/7/06
Surrogate: 1,4-Dichlorobenzene-d4	105	80.8-139	% Rec	1.0		2/7/06

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	790	50	µg/L	1.0		2/7/06

Client Sample ID: 4629-MW-31-W **Received:** 1/25/06 **Collected:** 1/25/06 0:00
Lab ID: 0601440-03D **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)	100	50	µg/L	1.0	1/31/06	2/6/06
Surrogate: N-Tricosane	52.7	38-129	% Rec	1.0	1/31/06	2/6/06

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

Date: 08-Feb-06
WorkOrder: 0601440

ANALYTICAL REPORT

Client Sample ID: 4629-MW-32-W **Received:** 1/25/06 **Collected:** 1/25/06 0:00
Lab ID: 0601440-04A **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		2/7/06
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/7/06
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/7/06
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/7/06
Benzene	430	25	µg/L	50		2/7/06
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		2/7/06
Toluene	7.2	0.50	µg/L	1.0		2/7/06
Ethylbenzene	2.0	0.50	µg/L	1.0		2/7/06
m,p-Xylene	2.9	0.50	µg/L	1.0		2/7/06
o-Xylene	0.76	0.50	µg/L	1.0		2/7/06
Surrogate: 1,4-Dichlorobenzene-d4	104	80.8-139	% Rec	1.0		2/7/06

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	2,000	50	µg/L	1.0		2/7/06

Client Sample ID: 4629-MW-32-W **Received:** 1/25/06 **Collected:** 1/25/06 0:00
Lab ID: 0601440-04D **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)	150	50	µg/L	1.0	1/31/06	2/6/06
Surrogate: N-Tricosane	54.5	38-129	% Rec	1.0	1/31/06	2/6/06

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

Date: 08-Feb-06
WorkOrder: 0601440

ANALYTICAL REPORT

Client Sample ID: 4629-QCTB **Received:** 1/25/06 **Collected:** 1/25/06 0:00
Lab ID: 0601440-05A **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		2/7/06
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		2/7/06
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		2/7/06
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		2/7/06
Benzene	ND	0.50	µg/L	1.0		2/7/06
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		2/7/06
Toluene	ND	0.50	µg/L	1.0		2/7/06
Ethylbenzene	ND	0.50	µg/L	1.0		2/7/06
m,p-Xylene	ND	0.50	µg/L	1.0		2/7/06
o-Xylene	ND	0.50	µg/L	1.0		2/7/06
Surrogate: 1,4-Dichlorobenzene-d4	111	80.8-139	% Rec	1.0		2/7/06

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		2/7/06

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

North Coast Laboratories, Ltd.

Date: 08-Feb-06

CLIENT: LACO Associates
Work Order: 0601440
Project: 4629.02, WSE-Bulk Plant-AST

QC SUMMARY REPORT

Method Blank

Sample ID: **MB-2/6/06** Batch ID: **R39631** Test Code: **8260OXYW** Units: **µg/L** Analysis Date: **2/6/06 11:19:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_060206B** SeqNo: **569357**

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	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	0.1475	0.50									J
o-Xylene	ND	0.50									
1,4-Dichlorobenzene-d4	1.10	0.10	1.00	0	110%	81	139	0			

Sample ID: **MB-2/6/06** Batch ID: **R39627** Test Code: **GASW-MS** Units: **µg/L** Analysis Date: **2/6/06 11:19:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_060206A** SeqNo: **569289**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	26.29	50									J

Sample ID: **MB-15094** Batch ID: **15094** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date: **2/6/06 1:35:41 PM** Prep Date: **1/31/06**
Client ID: Run ID: **ORGC5_060206A** SeqNo: **569114**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	41.07	50									J
N-Tricosane	37.7	0.10	50.0	0	75.5%	38	129	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: 08-Feb-06

CLIENT: LACO Associates
Work Order: 0601440
Project: 4629.02, WSE-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-06079** Batch ID: **R39631** Test Code: **8260OXYW** Units: **µg/L** Analysis Date: **2/6/06 7:55:00 AM** Prep Date:

Client ID: Run ID: **ORGCMS3_060206B** SeqNo: **569354**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21.43	1.0	20.0	0	107%	80	120	0			
Tert-butyl alcohol (TBA)	477.3	10	400	0	119%	25	162	0			
Di-isopropyl ether (DIPE)	21.22	1.0	20.0	0	106%	80	120	0			
Ethyl tert-butyl ether (ETBE)	20.22	1.0	20.0	0	101%	77	120	0			
Benzene	23.41	0.50	20.0	0	117%	78	117	0			S
Tert-amyl methyl ether (TAME)	19.62	1.0	20.0	0	98.1%	64	136	0			
Toluene	22.05	0.50	20.0	0	110%	80	120	0			
Ethylbenzene	20.60	0.50	20.0	0	103%	80	120	0			
m,p-Xylene	42.94	0.50	40.0	0	107%	80	120	0			
o-Xylene	18.04	0.50	20.0	0	90.2%	80	120	0			
1,4-Dichlorobenzene-d4	1.16	0.10	1.00	0	116%	81	139	0			

Sample ID: **LCSD-06079** Batch ID: **R39631** Test Code: **8260OXYW** Units: **µg/L** Analysis Date: **2/6/06 8:20:00 AM** Prep Date:

Client ID: Run ID: **ORGCMS3_060206B** SeqNo: **569355**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21.78	1.0	20.0	0	109%	80	120	21.4	1.63%	20	
Tert-butyl alcohol (TBA)	457.1	10	400	0	114%	25	162	477	4.34%	20	
Di-isopropyl ether (DIPE)	21.90	1.0	20.0	0	109%	80	120	21.2	3.13%	20	
Ethyl tert-butyl ether (ETBE)	20.84	1.0	20.0	0	104%	77	120	20.2	2.98%	20	
Benzene	24.13	0.50	20.0	0	121%	78	117	23.4	3.03%	20	S
Tert-amyl methyl ether (TAME)	19.99	1.0	20.0	0	99.9%	64	136	19.6	1.86%	20	
Toluene	22.61	0.50	20.0	0	113%	80	120	22.0	2.47%	20	
Ethylbenzene	21.11	0.50	20.0	0	106%	80	120	20.6	2.41%	20	
m,p-Xylene	44.08	0.50	40.0	0	110%	80	120	42.9	2.62%	20	
o-Xylene	18.65	0.50	20.0	0	93.2%	80	120	18.0	3.28%	20	
1,4-Dichlorobenzene-d4	1.16	0.10	1.00	0	115%	81	139	1.16	0.851%	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: 0601440
Project: 4629.02, WSE-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-06080** Batch ID: **R39627** Test Code: **GASW-MS** Units: **µg/L** Analysis Date: **2/6/06 9:37:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_060206A** SeqNo: **569286**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	920.9	50	1,000	0	92.1%	80	120	0			

Sample ID: **LCSD-06080** Batch ID: **R39627** Test Code: **GASW-MS** Units: **µg/L** Analysis Date: **2/6/06 10:03:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS3_060206A** SeqNo: **569287**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	922.8	50	1,000	0	92.3%	80	120	921	0.211%	20	

Sample ID: **LCS-15094** Batch ID: **15094** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date: **2/6/06 12:03:34 PM** Prep Date: **1/31/06**
Client ID: Run ID: **ORGC5_060206A** SeqNo: **569112**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	382.2	50	500	0	76.4%	41	96	0			
N-Tricosane	43.3	0.10	50.0	0	86.6%	38	129	0			

Sample ID: **LCSD-15094** Batch ID: **15094** Test Code: **SGTPHDW** Units: **µg/L** Analysis Date: **2/6/06 12:26:35 PM** Prep Date: **1/31/06**
Client ID: Run ID: **ORGC5_060206A** SeqNo: **569113**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	413.6	50	500	0	82.7%	41	96	382	7.88%	15	
N-Tricosane	45.3	0.10	50.0	0	90.5%	38	129	43.3	4.47%	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: 0601440

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; Chris Watt
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: 4629.02
Project Name: WSE - Bulk Plant-AST
Purchase Order Number: task 3035

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 List 1	ANALYSIS: TPHd w/SGC	CONTAINER	PRESERVATIVE
	4629-MW-3-W	1-25-06	AM	GW	3	1	9	b
	~~4629-MW-18-W~~				~~3~~	~~1~~		
	4629-MW-31-W				3	1		
	4629-MW-32-W				3	1		
	4629-QCTB				1			

—Not received

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER
-left voice mail 1/27 AM KT

Cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	1-25-06 1630		1/25/06 1630

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.

April 18, 2006

RECEIVED
LACO ASSOCIATES
APR 20 2006
BY:

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

Order No.: 0603772
Invoice No.: 57621
PO No.: 3035
ELAP No. 1247-Expires July 2006

Attn: Accounts Payable

RE: 4629.05 W&S-Bulk Plant-AST

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	4629-MW-3-W
01D	4629-MW-3-W
02A	4629-MW-9-W
02D	4629-MW-9-W
03A	4629-MW-10-W
04A	4629-MW-11-W
04D	4629-MW-11-W
05A	4629-MW-14-W
05D	4629-MW-14-W
06A	4629-MW-17s-W
06D	4629-MW-17s-W
07A	4629-MW-17d-W
07D	4629-MW-17d-W
08A	4629-MW-21-W
08D	4629-MW-21-W
09A	4629-MW-26-W
09D	4629-MW-26-W
10A	4629-MW-31-W
10D	4629-MW-31-W
11A	4629-MW-32-W
11D	4629-MW-32-W
12A	4629-QCTB
13A	4629-MW7-W
13D	4629-MW7-W

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

LMO
DRG
DNL
GH
GEO
HPI
CIW
FRB

File
Project #

REPORT CERTIFIED BY

Colleen Blackstone
Laboratory Supervisor(s)

T. Shen
QA Unit

Jesse G. Chaney, Jr.
Laboratory Director

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

Printed on Recycled Paper

CASE NARRATIVE

TPH as Gasoline:
The gasoline values for samples 4629-MW-3-W, 4629-MW-31-W, 4629-MW-32-W and 4629-MW7-W include the reported gasoline components in addition to other peaks in the gasoline range.

Sample 4629-MW-9-W does not present a peak pattern consistent with that of gasoline. The reported result represents the amount of material in the gasoline range.

The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries were below the lower acceptance limit for gasoline. The response of the reporting limit standard was such that the analyte would have been detected even with the low recovery; therefore, the data were accepted.

BTEX:
Some reporting limits were raised for samples 4629-MW-3-W and 4629-MW-9-W due to matrix interference.

The laboratory control sample duplicate (LCSD) recoveries were below the lower acceptance limits for most analytes. The response of the reporting limit standard was such that the analytes would have been detected even with the low recovery; therefore, the data were accepted.

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

TPH as Diesel/Motor Oil w/ Silica Gel Cleanup:
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.

Samples 4629-MW-3-W, 4629-MW-9-W, 4629-MW-21-W and 4629-MW-32-W contain material in the diesel range of molecular weights, but the material does not exhibit the peak pattern typical of diesel oil.

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

Date: 17-Apr-06
WorkOrder: 0603772

ANALYTICAL REPORT

Client Sample ID: 4629-MW-3-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-01A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	12	µg/L	1.0		4/8/06
Benzene	280	50	µg/L	100		4/8/06
Toluene	8.7	0.50	µg/L	1.0		4/8/06
Ethylbenzene	1.6	0.50	µg/L	1.0		4/8/06
m,p-Xylene	4.1	0.50	µg/L	1.0		4/8/06
o-Xylene	ND	0.50	µg/L	1.0		4/8/06
Surrogate: Cis-1,2-Dichloroethylene	94.4	85-115	% Rec	100		4/8/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	1,400	50	µg/L	1.0		4/8/06

Client Sample ID: 4629-MW-3-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-01D **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	83	50	µg/L	1.0	4/7/06	4/15/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/7/06	4/15/06

Client Sample ID: 4629-MW-9-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-02A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	3.0	µg/L	1.0		4/7/06
Benzene	0.78	0.50	µg/L	1.0		4/7/06
Toluene	ND	1.0	µg/L	1.0		4/7/06
Ethylbenzene	ND	0.50	µg/L	1.0		4/7/06
m,p-Xylene	ND	0.50	µg/L	1.0		4/7/06
o-Xylene	ND	0.50	µg/L	1.0		4/7/06
Surrogate: Cis-1,2-Dichloroethylene	97.0	85-115	% Rec	1.0		4/7/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	280	50	µg/L	1.0		4/7/06

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

Date: 17-Apr-06
WorkOrder: 0603772

ANALYTICAL REPORT

Client Sample ID: 4629-MW-9-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-02D **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	96	50	µg/L	1.0	4/7/06	4/15/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/7/06	4/15/06

Client Sample ID: 4629-MW-10-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-03A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	3.0	µg/L	1.0		4/7/06
Benzene	ND	0.50	µg/L	1.0		4/7/06
Toluene	ND	0.50	µg/L	1.0		4/7/06
Ethylbenzene	ND	0.50	µg/L	1.0		4/7/06
m,p-Xylene	ND	0.50	µg/L	1.0		4/7/06
o-Xylene	ND	0.50	µg/L	1.0		4/7/06
Surrogate: Cis-1,2-Dichloroethylene	94.7	85-115	% Rec	1.0		4/7/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		4/7/06

Client Sample ID: 4629-MW-11-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-04A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	3.0	µg/L	1.0		4/7/06
Benzene	ND	0.50	µg/L	1.0		4/7/06
Toluene	ND	0.50	µg/L	1.0		4/7/06
Ethylbenzene	ND	0.50	µg/L	1.0		4/7/06
m,p-Xylene	ND	0.50	µg/L	1.0		4/7/06
o-Xylene	ND	0.50	µg/L	1.0		4/7/06
Surrogate: Cis-1,2-Dichloroethylene	98.4	85-115	% Rec	1.0		4/7/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		4/7/06

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

Date: 17-Apr-06
WorkOrder: 0603772

ANALYTICAL REPORT

Client Sample ID: 4629-MW-11-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-04D **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	4/4/06	4/6/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/4/06	4/6/06

Client Sample ID: 4629-MW-14-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-05A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	3.0	µg/L	1.0		4/7/06
Benzene	ND	0.50	µg/L	1.0		4/7/06
Toluene	ND	0.50	µg/L	1.0		4/7/06
Ethylbenzene	ND	0.50	µg/L	1.0		4/7/06
m,p-Xylene	ND	0.50	µg/L	1.0		4/7/06
o-Xylene	ND	0.50	µg/L	1.0		4/7/06
Surrogate: Cis-1,2-Dichloroethylene	92.8	85-115	% Rec	1.0		4/7/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		4/7/06

Client Sample ID: 4629-MW-14-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-05D **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	4/4/06	4/6/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/4/06	4/6/06

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

Date: 17-Apr-06
WorkOrder: 0603772

ANALYTICAL REPORT

Client Sample ID: 4629-MW-17s-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-06A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	3.0	µg/L	1.0		4/7/06
Benzene	ND	0.50	µg/L	1.0		4/7/06
Toluene	ND	0.50	µg/L	1.0		4/7/06
Ethylbenzene	ND	0.50	µg/L	1.0		4/7/06
m,p-Xylene	ND	0.50	µg/L	1.0		4/7/06
o-Xylene	ND	0.50	µg/L	1.0		4/7/06
Surrogate: Cis-1,2-Dichloroethylene	101	85-115	% Rec	1.0		4/7/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		4/7/06

Client Sample ID: 4629-MW-17s-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-06D **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	4/4/06	4/6/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/4/06	4/6/06

Client Sample ID: 4629-MW-17d-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-07A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	3.0	µg/L	1.0		4/7/06
Benzene	ND	0.50	µg/L	1.0		4/7/06
Toluene	ND	0.50	µg/L	1.0		4/7/06
Ethylbenzene	ND	0.50	µg/L	1.0		4/7/06
m,p-Xylene	ND	0.50	µg/L	1.0		4/7/06
o-Xylene	ND	0.50	µg/L	1.0		4/7/06
Surrogate: Cis-1,2-Dichloroethylene	99.6	85-115	% Rec	1.0		4/7/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		4/7/06

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

Date: 17-Apr-06
WorkOrder: 0603772

ANALYTICAL REPORT

Client Sample ID: 4629-MW-17d-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-07D **Matrix:** Groundwater

Test Name: TPH as Diesel/Motor Oil w/ 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	4/7/06	4/15/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/7/06	4/15/06

Client Sample ID: 4629-MW-21-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-08A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	3.0	µg/L	1.0		4/7/06
Benzene	0.89	0.50	µg/L	1.0		4/7/06
Toluene	ND	0.50	µg/L	1.0		4/7/06
Ethylbenzene	ND	0.50	µg/L	1.0		4/7/06
m,p-Xylene	ND	0.50	µg/L	1.0		4/7/06
o-Xylene	ND	0.50	µg/L	1.0		4/7/06
Surrogate: Cis-1,2-Dichloroethylene	94.3	85-115	% Rec	1.0		4/7/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		4/7/06

Client Sample ID: 4629-MW-21-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-08D **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	52	50	µg/L	1.0	4/7/06	4/15/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/7/06	4/15/06

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

Date: 17-Apr-06
WorkOrder: 0603772

ANALYTICAL REPORT

Client Sample ID: 4629-MW-26-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-09A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	3.0	µg/L	1.0		4/7/06
Benzene	ND	0.50	µg/L	1.0		4/7/06
Toluene	ND	0.50	µg/L	1.0		4/7/06
Ethylbenzene	ND	0.50	µg/L	1.0		4/7/06
m,p-Xylene	ND	0.50	µg/L	1.0		4/7/06
o-Xylene	ND	0.50	µg/L	1.0		4/7/06
Surrogate: Cis-1,2-Dichloroethylene	95.1	85-115	% Rec	1.0		4/7/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		4/7/06

Client Sample ID: 4629-MW-26-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-09D **Matrix:** Groundwater

Test Name: TPH as Diesel/Motor Oil w/ 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	4/7/06	4/15/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/7/06	4/15/06

Client Sample ID: 4629-MW-31-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-10A **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		4/11/06
Benzene	86	25	µg/L	50		4/11/06
Toluene	1.5	0.50	µg/L	1.0		4/11/06
Ethylbenzene	0.69	0.50	µg/L	1.0		4/11/06
m,p-Xylene	1.0	0.50	µg/L	1.0		4/11/06
o-Xylene	ND	0.50	µg/L	1.0		4/11/06
Surrogate: 1,4-Dichlorobenzene-d4	93.5	80.8-139	% Rec	1.0		4/11/06

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	590	50	µg/L	1.0		4/11/06

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

Date: 17-Apr-06
WorkOrder: 0603772

ANALYTICAL REPORT

Client Sample ID: 4629-MW-31-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-10D **Matrix:** Groundwater

Test Name: TPH as Diesel/Motor Oil w/ 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	4/7/06	4/15/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/7/06	4/15/06

Client Sample ID: 4629-MW-32-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-11A **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		4/11/06
Benzene	380	5.0	µg/L	10		4/11/06
Toluene	6.5	0.50	µg/L	1.0		4/11/06
Ethylbenzene	1.9	0.50	µg/L	1.0		4/11/06
m,p-Xylene	2.7	0.50	µg/L	1.0		4/11/06
o-Xylene	0.90	0.50	µg/L	1.0		4/11/06
Surrogate: 1,4-Dichlorobenzene-d4	93.7	80.8-139	% Rec	1.0		4/11/06

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gasoline	1,900	50	µg/L	1.0		4/11/06

Client Sample ID: 4629-MW-32-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-11D **Matrix:** Groundwater

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Diesel (C12-C22)	100	50	µg/L	1.0	4/7/06	4/15/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/7/06	4/15/06

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

Date: 17-Apr-06
WorkOrder: 0603772

ANALYTICAL REPORT

Client Sample ID: 4629-QCTB **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-12A **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		4/11/06
Benzene	ND	0.50	µg/L	1.0		4/11/06
Toluene	ND	0.50	µg/L	1.0		4/11/06
Ethylbenzene	ND	0.50	µg/L	1.0		4/11/06
m,p-Xylene	ND	0.50	µg/L	1.0		4/11/06
o-Xylene	ND	0.50	µg/L	1.0		4/11/06
Surrogate: 1,4-Dichlorobenzene-d4	96.8	80.8-139	% Rec	1.0		4/11/06

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		4/11/06

Client Sample ID: 4629-MW7-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-13A **Matrix:** Groundwater

Test Name: BTEX **Reference:** EPA 5030/EPA 8021B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
MTBE	ND	3.0	µg/L	1.0		4/8/06
Benzene	3.8	0.50	µg/L	1.0		4/8/06
Toluene	1.1	0.50	µg/L	1.0		4/8/06
Ethylbenzene	0.75	0.50	µg/L	1.0		4/8/06
m,p-Xylene	0.73	0.50	µg/L	1.0		4/8/06
o-Xylene	ND	0.50	µg/L	1.0		4/8/06
Surrogate: Cis-1,2-Dichloroethylene	97.9	85-115	% Rec	1.0		4/8/06

Test Name: TPH as Gasoline **Reference:** EPA 5030/GCFID(LUFT)/EPA 8015B

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
TPHC Gas (C6-C14)	150	50	µg/L	1.0		4/8/06

Client Sample ID: 4629-MW7-W **Received:** 3/30/06 **Collected:** 3/28/06 0:00
Lab ID: 0603772-13D **Matrix:** Groundwater

Test Name: TPH as Diesel/Motor Oil w/ 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	4/7/06	4/15/06
TPHC Motor Oil	ND	170	µg/L	1.0	4/7/06	4/15/06

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

North Coast Laboratories, Ltd.

Date: 17-Apr-06

CLIENT: LACO Associates
Work Order: 0603772
Project: 4629.05 W&S-Bulk Plant-AST

QC SUMMARY REPORT

Method Blank

Sample ID **MB 041106** Batch ID: **R40748** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **4/11/06 6:08:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_060411B** SeqNo: **585283**

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									
Benzene	ND	0.50									
Toluene	0.1032	0.50									J
Ethylbenzene	ND	0.50									
m,p-Xylene	0.3305	0.50									J
o-Xylene	ND	0.50									
1,4-Dichlorobenzene-d4	0.956	0.10	1.00	0	95.6%	81	139	0			

Sample ID **MB-4/7/06** Batch ID: **R40722** Test Code: **BTXEW** Units: **µg/L** Analysis Date **4/7/06 6:42:09 PM** Prep Date
Client ID: Run ID: **ORGC8_060407B** SeqNo: **584944**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	ND	3.0									
Benzene	ND	0.50									
Toluene	0.1530	0.50									J
Ethylbenzene	0.1003	0.50									J
m,p-Xylene	0.2549	0.50									J
o-Xylene	0.09677	0.50									J
Cis-1,2-Dichloroethylene	0.938	0.10	1.00	0	93.8%	85	115	0			

Sample ID **MB 041106** Batch ID: **R40747** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **4/11/06 6:08:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_060411A** SeqNo: **585258**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	25.58	50									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: 0603772
Project: 4629.05 W&S-Bulk Plant-AST

QC SUMMARY REPORT

Method Blank

Sample ID **MB-15479** Batch ID: **15479** Test Code: **SGTPDMW** Units: **µg/L** Analysis Date **4/15/06 5:04:15 PM** Prep Date **4/7/06**
Client ID: Run ID: **ORGC5_060415A** SeqNo: **586310**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	26.06	50									J
TPHC Motor Oil	34.03	170									J

Sample ID **MB-4/7/06** Batch ID: **R40704** Test Code: **TPHCGW** Units: **µg/L** Analysis Date **4/7/06 6:42:09 PM** Prep Date
Client ID: Run ID: **ORGC8_060407A** SeqNo: **584751**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	ND	50									

Sample ID **MB-15462** Batch ID: **15462** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **4/6/06 12:28:07 AM** Prep Date **4/4/06**
Client ID: Run ID: **ORGC7_060405B** SeqNo: **584449**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	ND	50									
TPHC Motor Oil	61.21	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: 17-Apr-06

CLIENT: LACO Associates
Work Order: 0603772
Project: 4629.05 W&S-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-06223** Batch ID: **R40748** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **4/11/06 4:26:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_060411B** SeqNo: **585282**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18.13	1.0	20.0	0	90.6%	80	120	0			
Benzene	18.74	0.50	20.0	0	93.7%	78	117	0			
Toluene	19.29	0.50	20.0	0	96.5%	80	120	0			
Ethylbenzene	18.78	0.50	20.0	0	93.9%	80	120	0			
m,p-Xylene	38.02	0.50	40.0	0	95.1%	80	120	0			
o-Xylene	21.17	0.50	20.0	0	106%	80	120	0			
1,4-Dichlorobenzene-d4	0.987	0.10	1.00	0	98.7%	81	139	0			

Sample ID **LCSD-06223** Batch ID: **R40748** Test Code: **8260OXYW** Units: **µg/L** Analysis Date **4/12/06 1:48:00 AM** Prep Date

Client ID: Run ID: **ORGCMS3_060411B** SeqNo: **585299**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	17.30	1.0	20.0	0	86.5%	80	120	18.1	4.68%	20	
Benzene	18.87	0.50	20.0	0	94.3%	78	117	18.7	0.657%	20	
Toluene	19.98	0.50	20.0	0	99.9%	80	120	19.3	3.51%	20	
Ethylbenzene	18.98	0.50	20.0	0	94.9%	80	120	18.8	1.07%	20	
m,p-Xylene	39.20	0.50	40.0	0	98.0%	80	120	38.0	3.04%	20	
o-Xylene	19.92	0.50	20.0	0	99.6%	80	120	21.2	6.07%	20	
1,4-Dichlorobenzene-d4	1.03	0.10	1.00	0	103%	81	139	0.987	4.34%	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: 0603772
Project: 4629.05 W&S-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-06213** Batch ID: **R40722** Test Code: **BTXEW** Units: **µg/L** Analysis Date **4/7/06 3:47:18 PM** Prep Date
Client ID: Run ID: **ORGC8_060407B** SeqNo: **584942**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	43.14	3.0	40.0	0	108%	85	115	0			
Benzene	4.553	0.50	5.00	0	91.1%	85	115	0			
Toluene	4.680	0.50	5.00	0	93.6%	85	115	0			
Ethylbenzene	4.449	0.50	5.00	0	89.0%	85	115	0			
m,p-Xylene	8.938	0.50	10.0	0	89.4%	85	115	0			
o-Xylene	4.546	0.50	5.00	0	90.9%	85	115	0			
Cis-1,2-Dichloroethylene	1.12	0.10	1.00	0	112%	85	115	0			

Sample ID **LCSD-06213** Batch ID: **R40722** Test Code: **BTXEW** Units: **µg/L** Analysis Date **4/7/06 11:53:43 PM** Prep Date
Client ID: Run ID: **ORGC8_060407B** SeqNo: **584953**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	35.23	3.0	40.0	0	88.1%	85	115	43.1	20.2%	15	R
Benzene	4.207	0.50	5.00	0	84.1%	85	115	4.55	7.91%	15	S
Toluene	4.121	0.50	5.00	0	82.4%	85	115	4.68	12.7%	15	S
Ethylbenzene	3.991	0.50	5.00	0	79.8%	85	115	4.45	10.9%	15	S
m,p-Xylene	7.824	0.50	10.0	0	78.2%	85	115	8.94	13.3%	15	S
o-Xylene	4.009	0.50	5.00	0	80.2%	85	115	4.55	12.5%	15	S
Cis-1,2-Dichloroethylene	1.06	0.10	1.00	0	106%	85	115	1.12	4.94%	15	

Sample ID **LCS-06224** Batch ID: **R40747** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **4/11/06 5:17:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_060411A** SeqNo: **585257**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	980.3	50	1,000	0	98.0%	80	120	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: 0603772
Project: 4629.05 W&S-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID **LCSD-06224** Batch ID: **R40747** Test Code: **GASW-MS** Units: **µg/L** Analysis Date **4/12/06 2:13:00 AM** Prep Date
Client ID: Run ID: **ORGCMS3_060411A** SeqNo: **585272**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	941.6	50	1,000	0	94.2%	80	120	980	4.03%	20	

Sample ID **LCS-15479** Batch ID: **15479** Test Code: **SGTPDMW** Units: **µg/L** Analysis Date **4/15/06 3:11:04 PM** Prep Date **4/7/06**
Client ID: Run ID: **ORGC5_060415A** SeqNo: **586308**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	371.5	50	500	0	74.3%	46	91	0			
TPHC Motor Oil	831.3	170	1,000	0	83.1%	48	113	0			

Sample ID **LCSD-15479** Batch ID: **15479** Test Code: **SGTPDMW** Units: **µg/L** Analysis Date **4/15/06 3:33:38 PM** Prep Date **4/7/06**
Client ID: Run ID: **ORGC5_060415A** SeqNo: **586309**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	380.9	50	500	0	76.2%	46	91	372	2.50%	15	
TPHC Motor Oil	841.9	170	1,000	0	84.2%	48	113	831	1.26%	15	

Sample ID **LCS-06214** Batch ID: **R40704** Test Code: **TPHCGW** Units: **µg/L** Analysis Date **4/7/06 4:57:30 PM** Prep Date
Client ID: Run ID: **ORGC8_060407A** SeqNo: **584749**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	396.7	50	500	0	79.3%	85	115	0			S

Sample ID **LCSD-06214** Batch ID: **R40704** Test Code: **TPHCGW** Units: **µg/L** Analysis Date **4/8/06 12:28:11 AM** Prep Date
Client ID: Run ID: **ORGC8_060407A** SeqNo: **584760**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	402.8	50	500	0	80.6%	85	115	397	1.52%	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

CLIENT: LACO Associates
Work Order: 0603772
Project: 4629.05 W&S-Bulk Plant-AST

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID **LCS-15462** Batch ID: **15462** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **4/5/06 10:26:32 PM** Prep Date **4/4/06**
Client ID: Run ID: **ORGC7_060405B** SeqNo: **584446**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	550.3	50	500	0	110%	72	124	0			
TPHC Motor Oil	1,128	170	1,000	0	113%	71	139	0			

Sample ID **LCSD-15462** Batch ID: **15462** Test Code: **TPHDMW** Units: **µg/L** Analysis Date **4/5/06 10:46:51 PM** Prep Date **4/4/06**
Client ID: Run ID: **ORGC7_060405B** SeqNo: **584447**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	551.7	50	500	0	110%	72	124	550	0.263%	15	
TPHC Motor Oil	1,095	170	1,000	0	110%	71	139	1,130	2.91%	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

#0603772

LABORATORY NUMBER:

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:

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; Chris Watt
Sampler (Sign & Print): SJD

PROJECT INFORMATION
Project Number: 4629.05
Project Name: W&S - Bulk Plant-AST
Purchase Order Number: task 3035

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	CONTAINER	PRESERVATIVE	TPHg/BTEX	TPHd/mo w/SGC
	4629-MW-3-W	3-28-06	AM	GW	9	b	3	1
	4629-MW-9-W				7	----	3	1
	4629-MW-10-W						3	X
	4629-MW-11-W						3	1
	4629-MW-14-W						3	1
	4629-MW-17s-W						3	1
	4629-MW-17d-W						3	1
	4629-MW-21-W						3	1
	4629-MW-26-W		PM				3	1

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

SAMPLE CONDITION/SPECIAL INSTRUCTIONS
GEOTRACKER

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Todd B. Becker	3/30/06 13:10		3/30/06 1310

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: 0603772

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; Chris Watt
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: 4629.05
Project Name: W&S - Bulk Plant-AST
Purchase Order Number: task 3035

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 ~~List~~ 1 BTX/gc	ANALYSIS: TPHd/mo w/SGC	CONTAINER: 9	CONTAINER: 7	PRESERVATIVE: b	PRESERVATIVE: ----
	4629-MW-31-W	3-28-06	AM	GW	3	1				
	4629-MW-32-W	↓	↓	↓	3	1				
	4629-QCTB	↓	PM	↓	1					
	4629-MW7-W	3/28/06		GW	3	1				

per Chris Watt 4/3/06
OK BY 8260 LIST 4
PER CHRIS WATT TO SIDS
THESE THREE SAMPLES ONLY. 4/11/06

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

also received - Not on COC

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Todd B. Becker	3/30/06 13:10	Ronald [signature] 3/30/06	1310

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

ATTACHMENT 4: TOTAL XYLENES AS A PROXY FOR TPHg
Former Shell Bulk Plant; 400 Eighth Street, Fortuna
LACO NO. 4629.05; CRWQCB Case No. 1THU116

Using Total Xylenes as a proxy for TPHg

Kd = Cs/Cw

Kd = Koc*foc Koc for Total Xylenes varies, literature based values range from **220 for m-xylene**, 590 for p-xylene, and **700 for xylenes**
sources: **(ABB Environmental Services, Inc.,1990)**, and TPH Criteria Working Group Series (Amherst Sci. Publishing, 1997)

foc= 0.001

TPHg Kd =	0.22	l/g
	0.59	l/g
	0.7	l/g
100 µg/g =	455	µg/L
100 µg/g =	169	µg/L
100 µg/g =	143	µg/L

Xylenes slow anaerobic biodegradation rate = 8640 hours (Howard et al, 1991) 360 days 0.99 years 0.0019 decay rate (day^{-1})

today µg/L =	**71**	=	**50**	µg/L in	**1**	year
today µg/L =	**355**	=	**50**	µg/L in	**5**	years
today µg/L =	**711**	=	**50**	µg/L in	**10**	years
today µg/L =	**1422**	=	**50**	µg/L in	**20**	years

today µg/g = **313** = **1422** µg/L which will decay to 50 µg/L in 20 years using **Kd = 0.22**

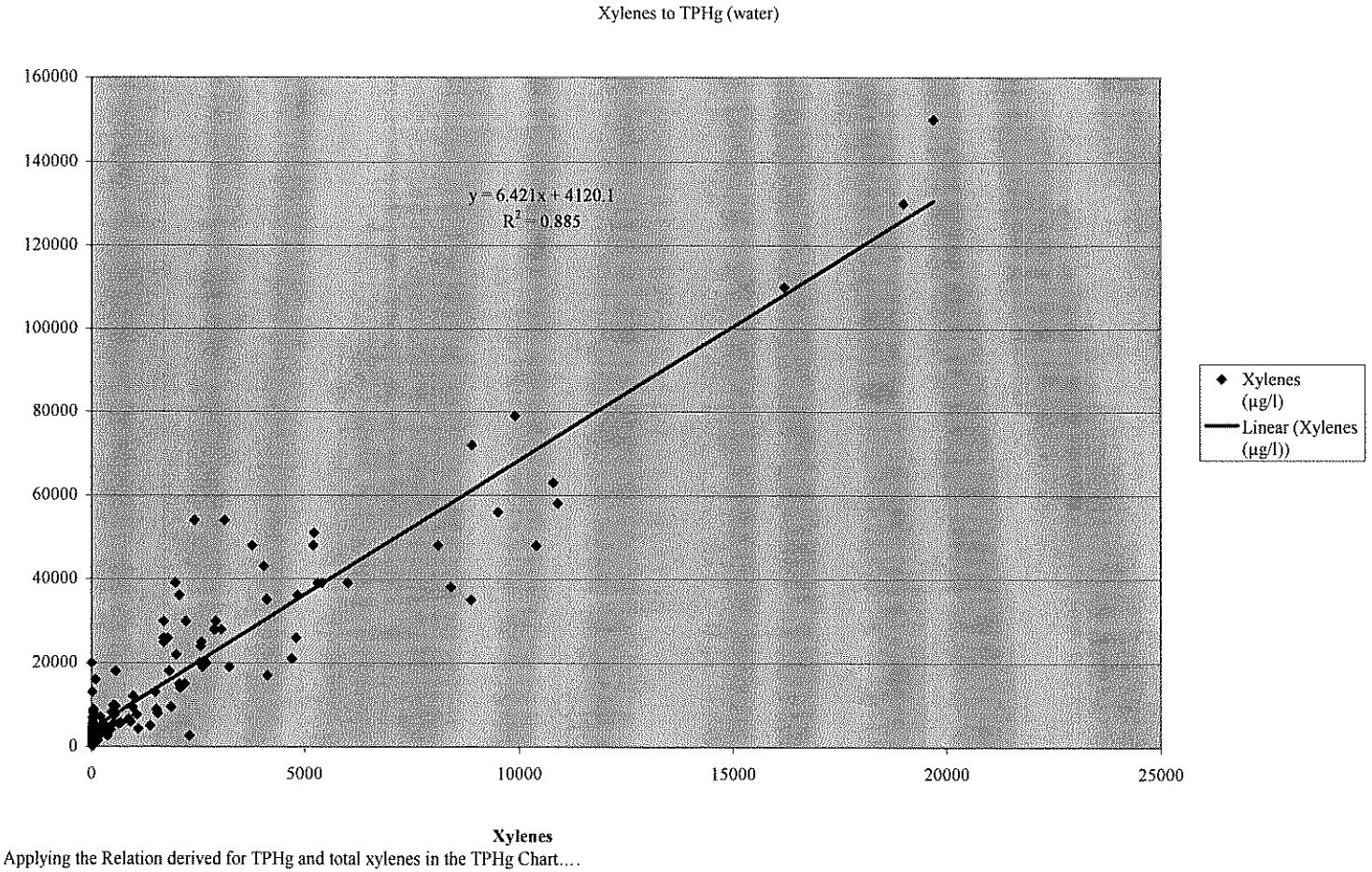
today µg/g = **839** = **1422** µg/L which will decay to 50 µg/L in 20 years using **Kd = 0.59**

today µg/g = **995** = **1422** µg/L which will decay to 50 µg/L in 20 years using **Kd = 0.7**

ATTACHMENT 4: TOTAL XYLENES AS A PROXY FOR TPHg
Former Shell Bulk Plant; 400 Eighth Street, Fortuna
LACO NO. 4629.05; CRWQCB Case No. 1THU116

Why Total Xylenes?
Xylenes comprise between 1 and 10% of typical gasoline formulations, and are approximately 3% of gasoline mixtures by average (ABB Environmental Services, Inc.,1990).
The solubility of xylenes is 175 mg/L, a mid-range value for many components of gasoline (ABB Environmental Services, Inc.,1990)
A compilation of decay rates of TPHg, sum of BTEX, ethylbenzene, and xylenes derived for a variety of BTEX impacted sites, not currently or previously under active remediation, located around Eureka, California (South Broadway Rocket, Harris Texaco, and Myrtle Beacon) suggests that the ratio of TPHg decay rate to total xylenes decay rate is less variable than TPHg to ethylbenzene or TPHg to Sum of BTEX decay rate ratios.
Total Xylenes concentrations are readily available data, as opposed to other gasoline components that may also be useful as TPHg proxies (n-hexane and n-pentane)

From the relation on the Xylenes to TPHg Chart the equation for the linear trend line is $Y = 6.421x+4126.1$ with a corresponding R^2 value of 0.885

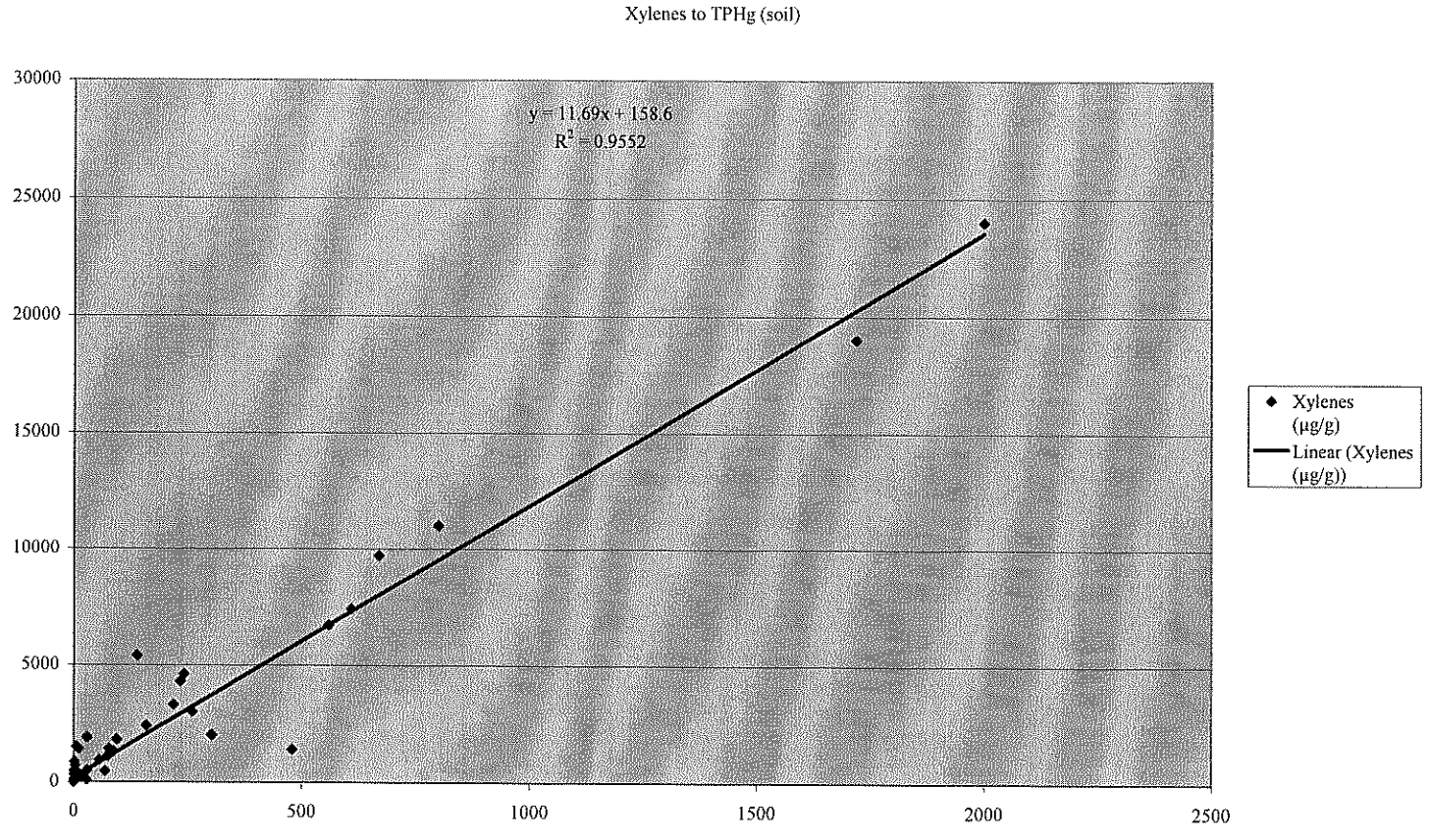


Applying the Relation derived for TPHg and total xylenes in the TPHg Chart....

If Xylenes concentrations (µg/L) are **1422** Then TPHg concentrations (µg/L) will be approximately equal to **13257**

ATTACHMENT 4: TOTAL XYLENES AS A PROXY FOR TPHg
Former Shell Bulk Plant; 400 Eighth Street, Fortuna
LACO NO. 4629.05; CRWQCB Case No. 1THU116

From the relation on the Xylenes to TPHg Chart the equation for the linear trend line is Y = 11.69x+158.6 with a corresponding R^2 value of 0.9552



If Xylenes concentrations (µg/g) are	**313**	Then TPHg concentrations (µg/g) will be approximately equal to	**3818**
If Xylenes concentrations (µg/g) are	**839**	Then TPHg concentrations (µg/g) will be approximately equal to	**9967**
If Xylenes concentrations (µg/g) are	**995**	Then TPHg concentrations (µg/g) will be approximately equal to	**11790**