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May 11, 2005

4805.00

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

Attention: Mr. Craig Hunt

Subject: Groundwater Monitoring Report; First Quarter 2005
Leggett Gas and Mini-Mart, 67600 Highway 101, Leggett, California
CRWQCB Case No. 1TMC418

Dear Mr. Hunt:

LACO ASSOCIATES (LACO) presents the results of groundwater monitoring for the first quarter of 2005 at 67600 Highway 101, Leggett, California. This report was prepared for Mr. Andy Korntved, the site owner and responsible party.

Please call or email if you have any questions or concerns.

Sincerely,
LACO ASSOCIATES

Gwendolyn Erickson
Staff Geologist

Christopher J. Watt, PG
PG 7586, Exp. 03/31/06

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

GJE:lnm

Attachments

cc: Mr. Andy Korntved

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GROUNDWATER MONITORING REPORT FIRST QUARTER 2005

Leggett Gas and Mini Mart
67600 Highway 101, Leggett, California
California Regional Water Quality Control Board Case No. 1TMC418
LACO ASSOCIATES Project No. 4805.00

Introduction

This report presents the cumulative results of groundwater monitoring conducted at the site since March 2001. Field activities associated with the first quarter 2005 groundwater monitoring event were conducted on February 23, 2005. Please refer to Table A for the current groundwater monitoring regime. Monitoring well sampling protocol is included in LACO's *Standard Operating Procedures* on file at your office. A location and site map are provided as Figures 1 and 2, respectively.

Table A: Sampling Regime for February 23, 2005

MONITORING WELL ID	SCREENED INTERVAL (feet)	DTW (feet)	PURGE METHOD	WATER QUALITY PARAMETERS	ANALYTICALS	SAMPLING SCHEDULE
					ORGANICS	
MW1	12.5-20	4.58	DHP	ORP, DO	TPHg, BTEX, MTBE, DIPE, ETBE, TAME, TBA, TPHd/mo with sgc	Biannual
MW2	8.5-15	2.78				
MW3	10-20	4.98				
DW1	---	---	½" B	none		

A key to this Table is included as Attachment 1.

Site Chronology

- April 1999: One 4,000-gallon and one 2,000-gallon gasoline underground storage tanks (USTs), and one 2,000-gallon diesel UST were removed from the site with a limited over-excavation of contaminated soils.
- 2000 through 2004: The delineation of sorbed-phase and dissolved-phase petroleum hydrocarbons was performed.
- 2001: A sensitive receptor survey was performed.

Hydraulic Gradient and Hydrogeology

The site stratigraphy generally consists of 6 to 8 feet of thick dense, silty sand with angular gravel, underlain by 3 to 5 feet of thick dense clayey, sandy, silt. Dense clayey, silty sand with gravel extends below the silt to a depth of approximately 20 feet bgs. The dense clayey silty

sand with gravel is a water bearing unit at the site. The Eel River is located approximately 1,800 feet northwest of the site and dominates groundwater flow direction at the site.

The hydraulic gradient and direction for this sampling event were calculated by the three-point method using monitoring wells MW1 through MW3. The calculated hydraulic gradient and potentiometric surface are presented in Figure 3. Current and historical hydraulic head data are presented in Table 1 and a copy of the field sampling data sheets are included as Attachment 2.

The calculated hydraulic gradient for the February 23, 2005, sampling event is 2.1 percent in a N53°W direction.

Laboratory Results

Laboratory analytical results from the February 23, 2005, quarterly sampling event are included below in Table B. Current and historical groundwater analytical data are included in Table 1, and copies of the laboratory analytical reports for this reporting period are included as Attachment 3.

Table B: Analytical Results for February 23, 2005 Quarterly Sampling Event

WELL	TPHg (µg/L)	TPHd (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylben-zene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Other Fuel Oxygenates (µg/L)
MW-1	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-10
MW-2	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-10
MW-3	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	**1.1**	ND<1.0-10
DW-1	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-10

Discussion of Groundwater Results

Analytical results for monitoring wells sampled during the first quarter of 2005 are consistent with the previous sampling event from August 18, 2004. Sampling events prior to the August 2004 event generally reported low (less than 300 µg/L), inconsistent concentrations of dissolved total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX) constituents. Detectable concentrations of TPHg have not been observed in monitoring wells MW1 nor MW3 for at least two hydrologic cycles. Reported TPHg concentrations in monitoring wells MW2 have been below detection limits for the past two sampling events; however, a full hydrologic cycle has not passed since reported detectable TPHg

concentrations (February 2004).

A declining trend of TPHg concentrations can be observed in monitoring wells MW1, MW2, and MW3 from previous and current sampling events. Therefore, monitored natural attenuation (MONA) is a viable corrective action alternative.

Declining Trend Evaluation

To evaluate declining trends of dissolved TPHg in groundwater at the site, LACO used chart forecasting of groundwater data and calculations of degradation rates for the site.

Charts

Charts 1 through 3 present trends in TPHg concentrations as reported in monitoring wells MW1 through MW3, respectively, since March 2001. Detectable concentrations of TPHg at the site appear to be seasonal in all wells, therefore only seasonal data was used to create the charts. Detectable TPHg concentrations in monitoring well MW1 tend to be reported during the dry, late summer months, perhaps due to the proximity of the well to the source. Detectable TPHg concentrations in monitoring wells MW2 and MW3 tend to be reported in February.

Charts 1 through 3 present reported TPHg concentrations plotted to a logarithmic scale, with an exponential trendline. Exponential trendlines were used to compare trendline degradation rates to observed first order degradation rates at the site. Equations for the exponential trendlines match the format of first order decay equation:

$$C_f = C_o e^{-kt}$$

Where C_f is the final concentration; C_o is the initial concentration; e, the base of the natural logarithm; k is the degradation rate; and t is the time.

Trendline equations presented on Charts 1 through 3 are extrapolated using Microsoft Excel and a brief explanation of their values correlating to the above variables, is warranted. For example, the exponential trendline equation for monitoring well MW2 is:

$$y = 2E{+}19e^{-0.0011x}$$

Where y corresponds to C_f, the final concentration; 2E+19 corresponds to C_o, the initial concentration; e, the base of the natural logarithm; 0.0011 is the degradation rate; and x is the time. All else being explanatory, the 2E+19 appears unusual in this equation because, we know by historical data at the site, a concentration of that value has never been reported; however, this value is the extrapolated initial concentration (as determined by Microsoft Excel) at the site on

January 1, 1900, that will degrade to any y value in x number of days from January 1, 1900.

The CRWQCB water quality objective (WQO) for TPHg is 5 μg/L; however, the practical quantitation limit for the EPA Test Method 8260 is 50μg/L. Therefore, the CRWQCB WQO for TPHg is 50 μg/L. Charts 1 through 3 project decreasing trendlines to estimated dates to reach a WQO of 50 μg/L.

Decay Rate Equations

Worksheet 1 tabulates the observed first order degradation rate and predicted WQO achievement date derivations for TPHg in on-site wells based on observed data. The observed degradation rate for each well was calculated from the dissolved TPHg concentration high and first consistent non-detect observed, and the time elapsed between those two dates, in the given well.

Worksheet 1 also presents "fast" and "slow" degradation rates, based on published cycloheaxane 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, cyclohexane is a major component in standard gasoline formulation, making up to approximately 32 percent by volume of the formulation (Nyer et al., 1996). Cyclohexanes were also reported as a major component in a groundwater sample collected at another UST site impacted by weathered/degraded gasoline in Fortuna, California. Attachment 4 presents a data sheet from Agricultural and Priority Pollutants Laboratories, Inc (APPL) illustrating the relative concentrations of separate analytes making up degraded and dissolved TPHg. Based on data presented in Attachment 4, cyclohexanes comprise approximately 36 percent of the TPHg from the Fortuna site. This supports Nyer's estimate, thereby we conclude that cyclohexane is a representative proxy when calculating a decay rate for TPHg.

Cyclohexane "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 determined using the first order decay equation presented above.

Table C (below) summarizes the results of the chart forecasting, TPHg degradation rate derivations, and WQO achievement date estimates for on-site monitoring wells MW1 through MW3. Calculated years to reach TPHg WQO of 50 μg/L, presented in Table C, are based on both observed degradation rates and degradation rates calculated from published half-lives of

cyclohexane.

Table C: Decay Rates and WQO achievement dates for TPHg				
MW1	**Chart trend line estimate**	**Calculations using observed TPHg concentrations**	**Calculations using published cyclohexane half life (slow)**	**Calculations using published cyclohexane half life (fast)**
DECAY RATE (k days^{-1})	0.0016	0.0038	0.00095	0.0062
Year of WQO Achievement (TPHg: 50 µg/L)	Current	Current	2012	Current
MW2	Chart trend line estimate	Calculations using observed TPHg concentrations	Calculations using published cyclohexane half life (slow)	Calculations using published cyclohexane half life (fast)
DECAY RATE (k days^{-1})	0.0011	0.0012	0.00095	0.0062
Year of WQO Achievement (TPHg: 50 µg/L)	2005	2011	2013	Current
MW3	Chart trend line estimate	Calculations using observed TPHg concentrations	Calculations using published cyclohexane half life (slow)	Calculations using published cyclohexane half life (fast)
DECAY RATE (k days^{-1})	0.0024	0.0029	0.00095	0.0062
Year of WQO Achievement (TPHg: 50 µg/L)	Current	2005	2013	Current

Conclusions

- Based on presented data, TPHg concentration trends for monitoring wells MW1 and MW3 have reached WQOs.

- Estimated years of WQO achievement for monitoring well MW2 are variable. However, evidence suggests groundwater near monitoring well MW2 will reach WQO within the next 5 years.

Future Work

General requirements of corrective action for the site have been completed, including preparation of a sensitive receptor survey and delineation of the sorbed- and dissolved-phase contaminants of concern. Additionally, analysis of existing data suggests groundwater will reach water quality goals within 5 years. Based on this evidence, LACO recommends the site be considered for no

further action.

References

Howard, Philip H. 1991. *Handbook of Environmental Degradation Rates*. Lewis Publishers

LACO. 2004. *Subsurface Investigation Status Report*: Leggett Gas and Mini-Mart 67600 Drive Thru Tree Road, Leggett, California. CRWQCB Case No. 1TMC418; LACO Project No. 4805.00. April 2004. 7 pages + Attachments

Nyer, Evan K., Sami Fam, Donald F. Kidd, Frank J. Johns II, Peter L. Palmer, Gary Boettcher, Tom L. Crossman, Suthan S. Suthersan. 1996. *In Situ Treatment Technology*. Lewis Publishers.

List of Figures, Tables, and Attachments

Figure 1: Location Map
Figure 2: Site Map
Figure 3: Hydraulic Gradient Map

Table 1: Historical Well Data and Groundwater Analytical Results

Chart 1: MW1 TPHg Concentration Time Series
Chart 2: MW2 TPHg Concentration Time Series
Chart 3: MW3 TPHg Concentration Time Series

Worksheet 1: Degradation Rates and Calculated Years to Reach WQO for TPHg

Attachment 1: Key to Abbreviations
Attachment 2: Groundwater Sampling: Field Data Sheets
Attachment 3: Laboratory Analytical Reports
Attachment 4: APPL Data Sheet

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LACO ASSOCIATES CONSULTING ENGINEERS 21 W 4TH ST. EUREKA, CA 95501 (707)443-5054	PROJECT	GROUNDWATER MONITORING REPORT	BY	RJM	FIGURE
	CLIENT	ANDY KORNTVED	DATE	4/27/05	1
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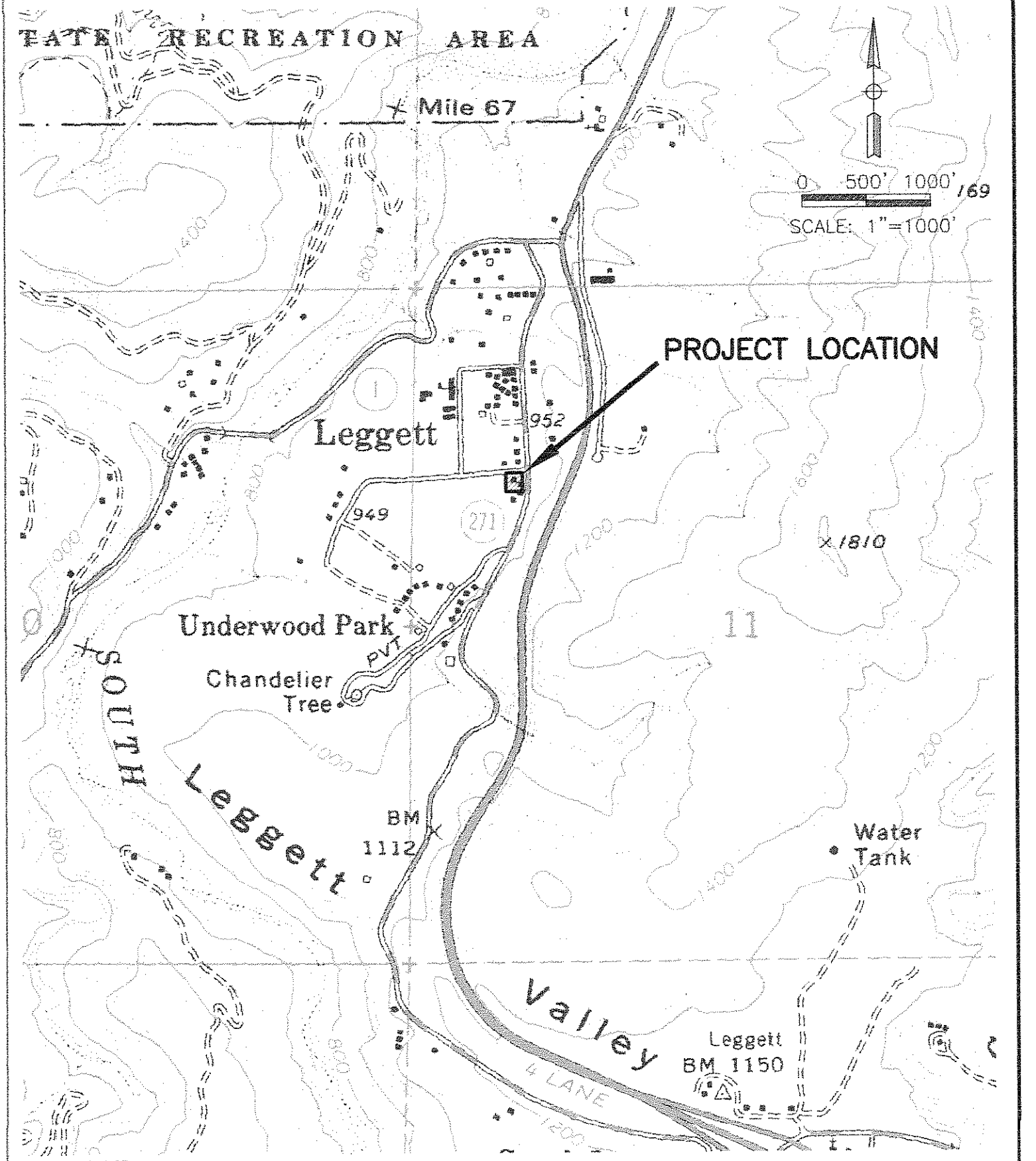
		LOCATION MAP	SCALE	1"=1000'	4805.00



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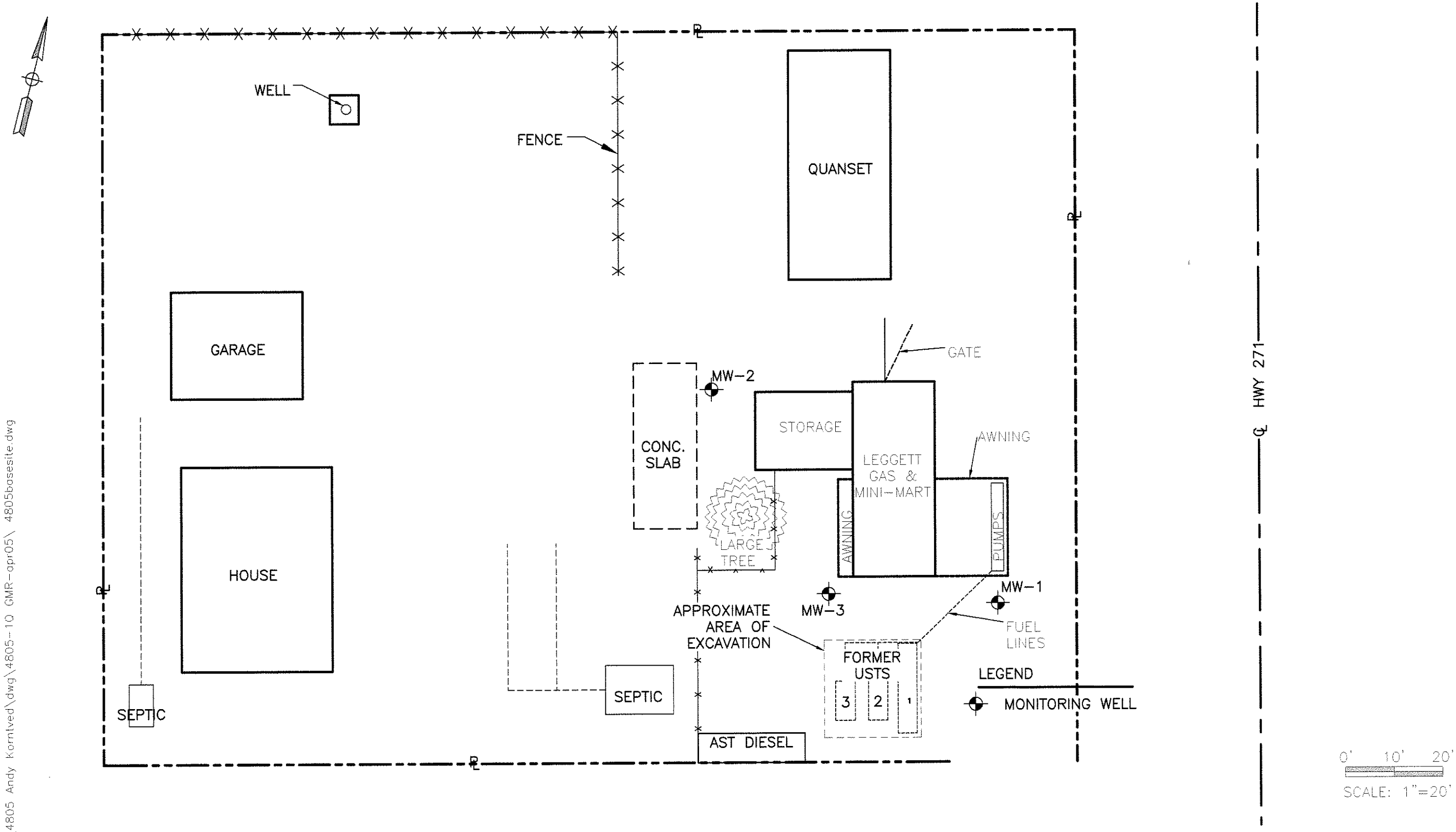

NO.	REVISION	BY	CHK	DATE

LACO ASSOCIATES
CONSULTING ENGINEERS
216 J ST. EUREKA, CA 95501 (707)443-5054

GROUNDWATER MONITORING REPORT
SITE MAP

ANDY KORNTVED
67600 HIGHWAY 101, LEGGETT
LEGGETT, CA 95585

SCALE	1"=20'
DRAWN	RJM
CHECK	
APPVD	
DATE	5/03/05
JOB NO.	4805.00
FIGURE	2

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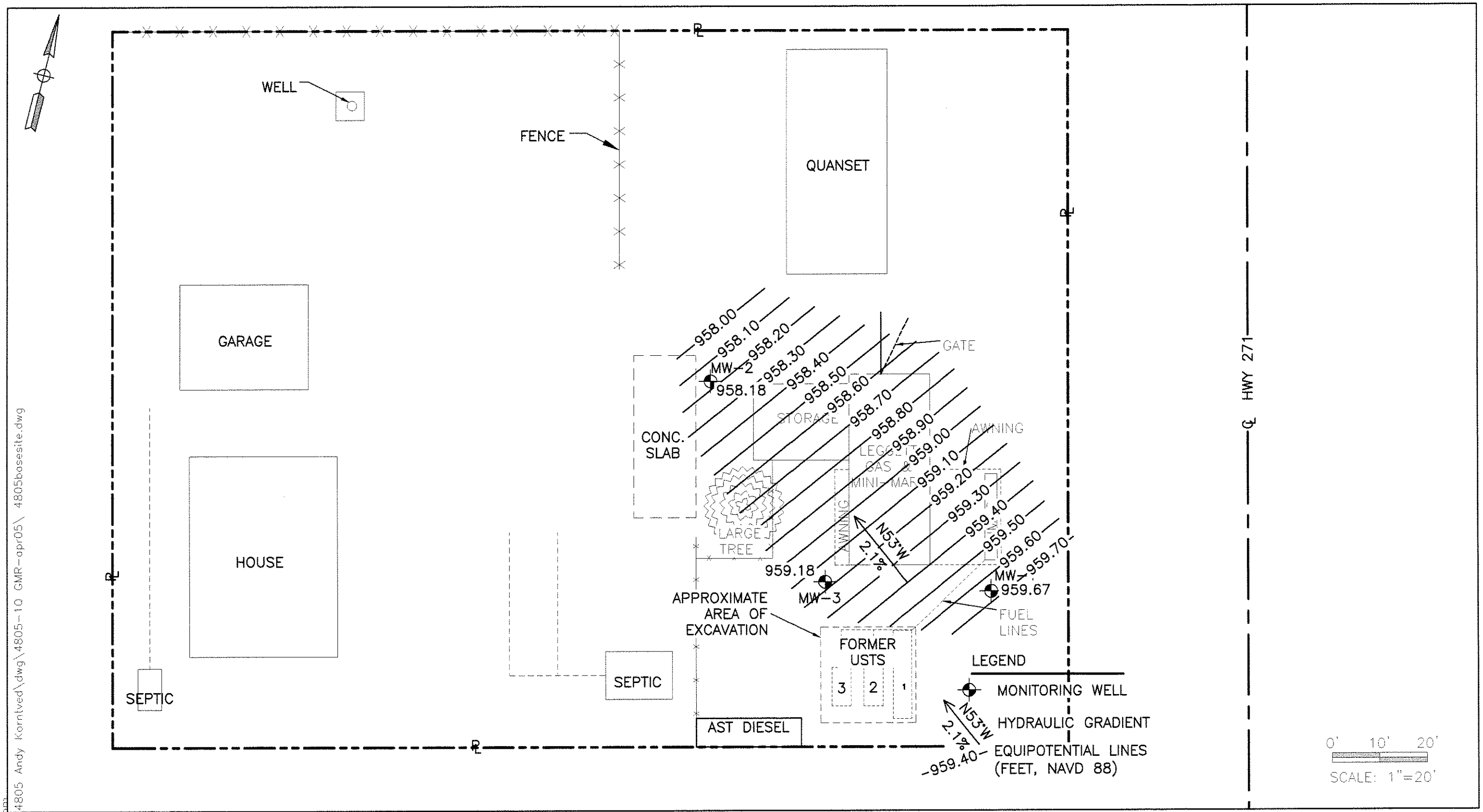

NO.	REVISION	BY	CHK	DATE

LACO ASSOCIATES
CONSULTING ENGINEERS
216 J ST. EUREKA, CA 95501 (707)443-5054

GROUNDWATER MONITORING REPORT
HYDRAULIC GRADIENT MAP (2/23/05)

ANDY KORNTVED
67600 HIGHWAY 101, LEGGETT
LEGGETT, CA 95585

SCALE	1"=20'
DRAWN	RJM
CHECK	
APPVD	
DATE	6/03/05
JOB NO.	4805.00
FIGURE	3

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TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Leggett Gas Mini-Mart
67600 Highway 101, Leggett
LACO No. 4805.00; Case No. ITMC418

	Groundwater Measurements			Analytical Results										
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Other Oxygenates (µg/L)	ORP mV	Dissolved Oxygen mg/L
MW-1	964.25 *													
3/27/01		957.88	6.37	---	---	---	---	---	---	---	---	---	---	---
3/28/01		957.75	6.50	140	ND<50	---	ND<0.50	ND<0.50	0.50	ND<0.50	ND<0.50	ND<1-10	---	---
5/16/01		955.37	8.88	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0-10	-92	1.0
6/18/01		955.18	9.07	---	---	---	---	---	---	---	---	---	---	---
7/24/01		954.56	9.69	---	---	---	---	---	---	---	---	---	---	---
9/6/01		953.29	10.96	310	ND<50	---	ND<0.50	ND<0.50	ND<0.50	0.52	ND<0.50	ND<1.0-10	-42	1.5
10/5/01		952.72	11.53	---	---	---	---	---	---	---	---	---	---	---
11/8/01		954.93	9.32	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-91	0.7
12/12/01		960.00	4.25	---	---	---	---	---	---	---	---	---	---	---
1/4/02		961.59	2.66	---	---	---	---	---	---	---	---	---	---	---
2/20/02		956.62	7.63	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-88	---
3/12/02		959.87	4.38	---	---	---	---	---	---	---	---	---	---	---
5/21/02		957.75	6.50	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-60	0.83
6/13/02		956.06	8.19	---	---	---	---	---	---	---	---	---	---	---
7/19/02		955.49	8.76	---	---	---	---	---	---	---	---	---	---	---
8/6/02		955.40	8.85	93	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-39	2.11
12/27/02		960.34	3.91	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-35	0.40
				Monitoring well top of casings resurveyed 02/04/03										
2/7/03		959.32	4.93	ND<50	ND<50	---	0.75	1.3	ND<0.50	0.54	ND<1.0	ND<1.0-20	---	2.98
2/20/04		961.51	2.74	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	0.74	ND<1.0	ND<1.0-10	43	0.19
8/18/04		955.26	8.99	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	-53	1.10
2/23/05		959.67	4.58	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	36	0.44
MW-2	960.96 *													
3/27/01		954.45	6.51	---	---	---	---	---	---	---	---	---	---	---
3/28/01		957.17	3.79	57	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1-10	---	---
5/16/01		954.83	6.13	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.6	ND<1.0-10	51	1.4
6/18/01		954.17	6.79	---	---	---	---	---	---	---	---	---	---	---
7/24/01		953.56	7.40	---	---	---	---	---	---	---	---	---	---	---
9/6/01		952.21	8.75	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	ND<1.0-10	12	2.5
10/5/01		951.35	9.61	---	---	---	---	---	---	---	---	---	---	---
11/8/01		953.74	7.22	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.7	ND<1.0-20	-82	1.4
12/12/01		958.47	2.49	---	---	---	---	---	---	---	---	---	---	---
1/4/02		958.93	2.03	---	---	---	---	---	---	---	---	---	---	---
2/20/02		959.08	1.88	190	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-96	
3/12/02		958.33	2.63	---	---	---	---	---	---	---	---	---	---	---
5/21/02		957.13	3.83	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	21	0.78
6/13/02		955.36	5.60	---	---	---	---	---	---	---	---	---	---	---
7/19/02		954.69	6.27	---	---	---	---	---	---	---	---	---	---	---
8/6/02		954.46	6.50	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	14	1.89
12/27/02		957.67	3.29	110	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	5	1.60
				Monitoring well top of casings resurveyed 02/04/03										
2/7/03		958.07	2.89	98	ND<50	---	ND<0.50	0.53	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---	2.92
2/20/04		958.79	2.17	98	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	0.85	ND<1.0	ND<1.0-10	125	0.20
8/18/04		954.20	6.76	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	141	1.45
2/23/05		958.18	2.78	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	124	2.08
MW-3	964.16 *													
3/27/01		957.91	6.25	---	---	---	---	---	---	---	---	---	---	---
3/28/01		957.56	6.60	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.6	ND<1-10	---	---
5/16/01		955.25	8.91	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0-10	-75	0.8
6/18/01		954.88	9.28	---	---	---	---	---	---	---	---	---	---	---
7/24/01		954.25	9.91	---	---	---	---	---	---	---	---	---	---	---
9/6/01		953.05	11.11	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.50	ND<1.0-5.0	-11	0.8
10/5/01		952.42	11.74	---	---	---	---	---	---	---	---	---	---	---
11/8/01		954.36	9.80	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-82	0.4
12/12/01		959.46	4.70	---	---	---	---	---	---	---	---	---	---	---
1/4/02		960.69	3.47	---	---	---	---	---	---	---	---	---	---	---
2/20/02		960.87	3.29	140	ND<50	---	1.1	ND<0.50	1.9	ND<0.50	2.9	ND<1.0-20	Under range	
3/12/02		959.24	4.92	---	---	---	---	---	---	---	---	---	---	---
5/21/02		957.48	6.68	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	2.4	ND<1.0-20	-54	0.33
6/13/02		955.81	8.35	---	---	---	---	---	---	---	---	---	---	---
7/19/02		955.12	9.04	---	---	---	---	---	---	---	---	---	---	---
8/6/02		954.87	9.29	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-8	1.68
12/27/02		959.84	4.32	85	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-44	0.60
				Monitoring well top of casings resurveyed 02/04/03										
2/7/03		958.77	5.39	ND<50	ND<50	---	0.59	0.99	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---	2.43
2/20/04		960.66	3.50	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	0.80	ND<1.0	ND<1.0-10	63	0.20
8/18/04		954.87	9.29	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	Under range	1.11
2/23/05		959.18	4.98	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.1	ND<1.0-10	Under range	0.39
DW-1														
9/22/00		---	---	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1-10	---	---
3/28/01		---	---	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1-10	---	---
5/16/01		---	---	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0-10	239	4.3
9/6/01		---	---	76	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0-5.0	36	3.9
11/8/01		---	---	87	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	-91	0.2
12/12/01 (Bld.)		---	---	87	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---	---
12/12/01 (Pump)		---	---	68	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---	---
1/4/02		---	---	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---	---
2/20/02 (Bld.)		---	---	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	155	5.6
2/20/02 (Pump)		---	---	ND<50	---	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---	---
5/21/02		---	---	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---	---
2/7/03		---	---	ND<50	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-20	---	---
2/20/04		---	---	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	ND<0.50	1.2	ND<1.0-10	---	---
8/18/04		---	---	ND<50	ND<50	ND<170	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<1.0-10	---	---
2/23/05		---	---	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	---	---

TABLE 1: WELL DATA AND GROUNDWATER ANALYTICAL RESULTS
Leggett Gas Mini-Mart
67600 Highway 101, Leggett
LACO No. 4805.00; Case No. ITMC418

	Groundwater Measurements			Analytical Results										
WELL/ Sample Date	Well Head Elevation (feet msl)	Groundwater Elevation (feet msl)	Depth to Water (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	Other Oxygenates (µg/L)	ORP mV	Dissolved Oxygen mg/L

Reference B.M. MW-2 Former M&M Beacon (elev. 955.31 feet msl). Elevations set 3/27/01, C. Watt
*Elevations resurveyed 2/4/03 by R. Smith, LS, using monument designated HPGN D CA 01 J4. South side of northbound Hwy 101 on ramp at Scandia Overcrossing - south side of Leggett

CHART 1: MW1 TPHg Concentration Time Series
Leggett Gas and Mini Mart
CRWQCB Case No. 1TMC418
LACO Project No. 4805.00

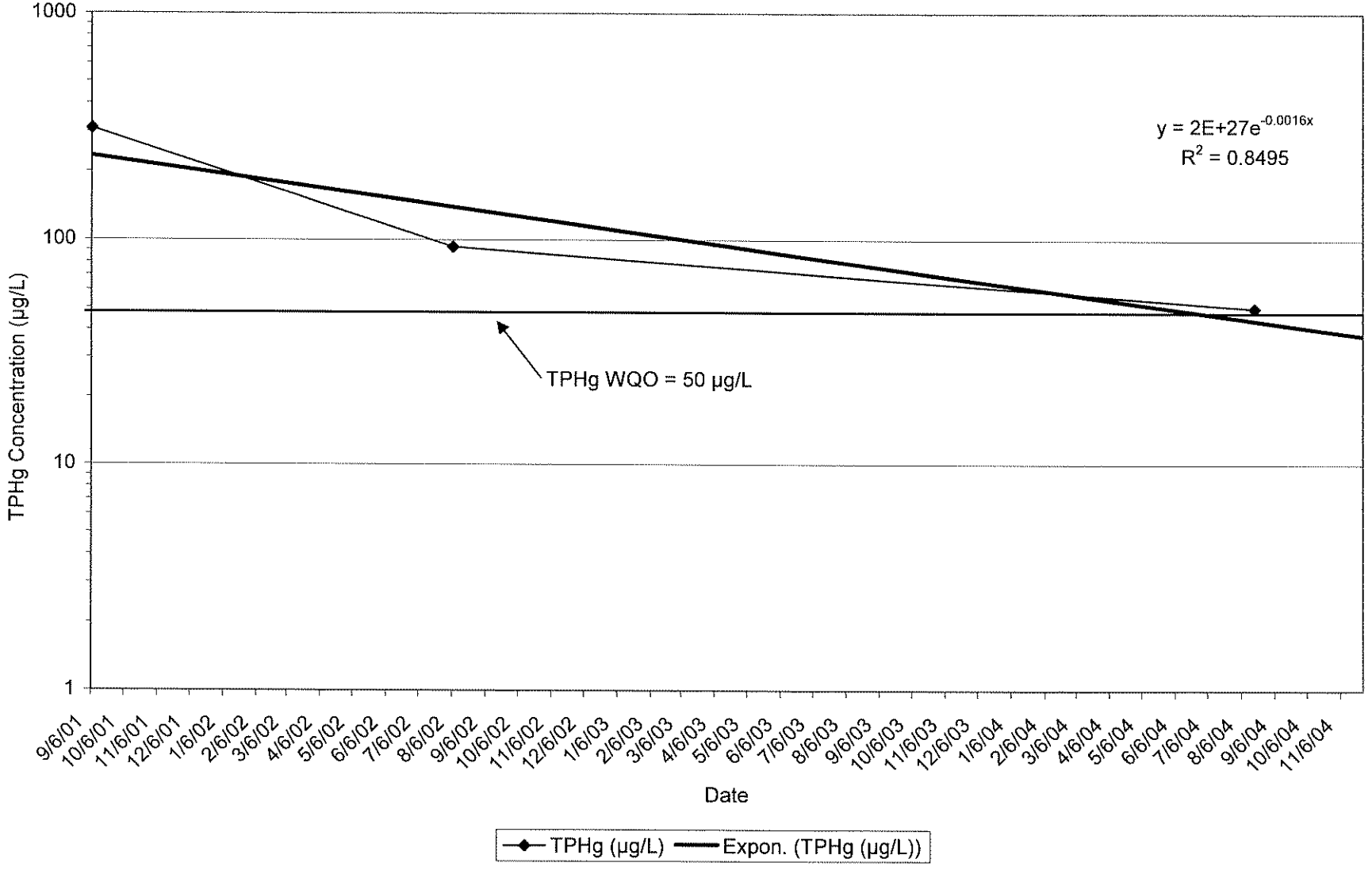


CHART 2: MW2 TPHg Concentration Time Series
Leggett Gas and Mini Mart
CRWQCB Case No. 1TMC418
LACO Project No. 4805.00

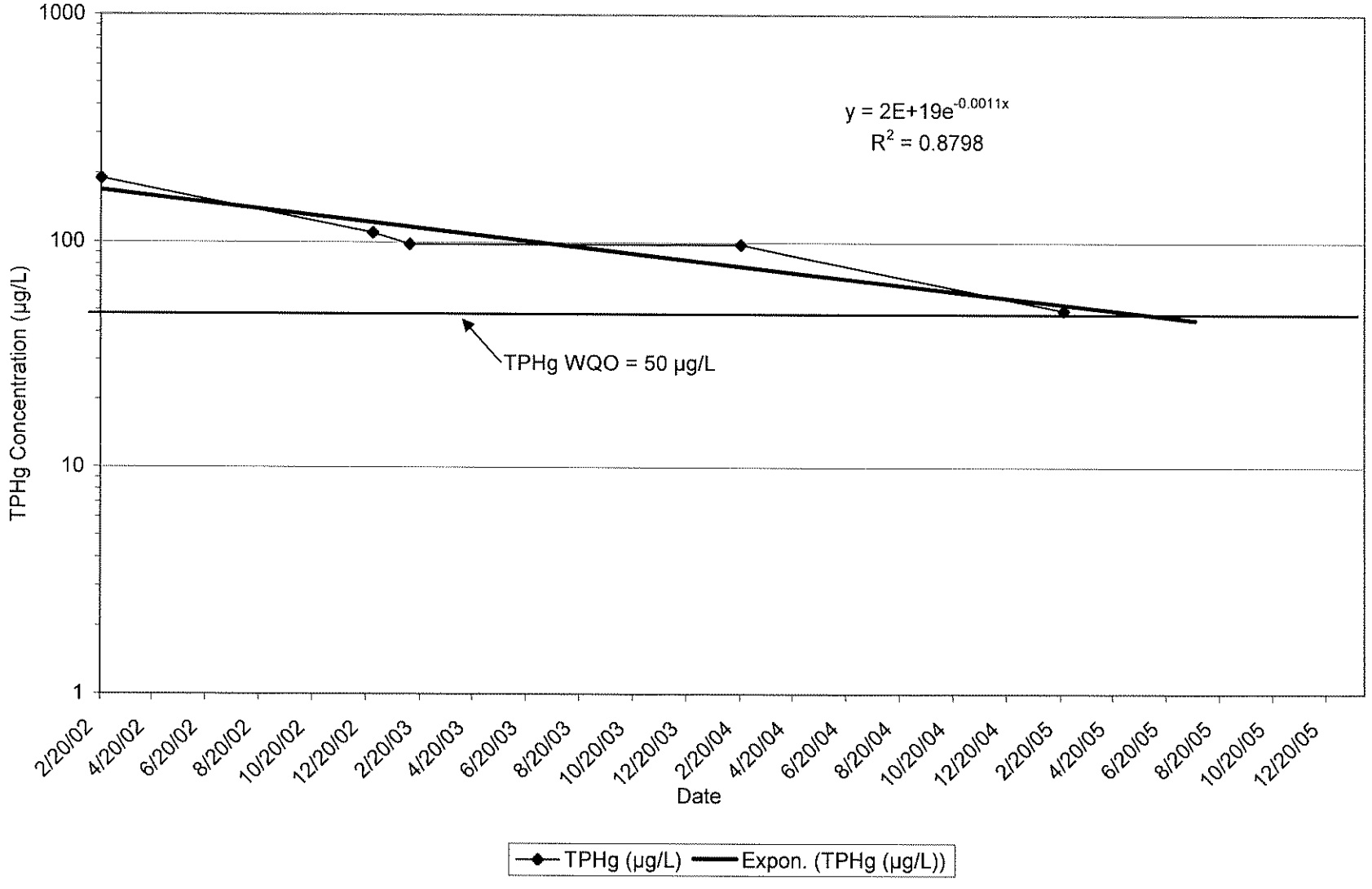
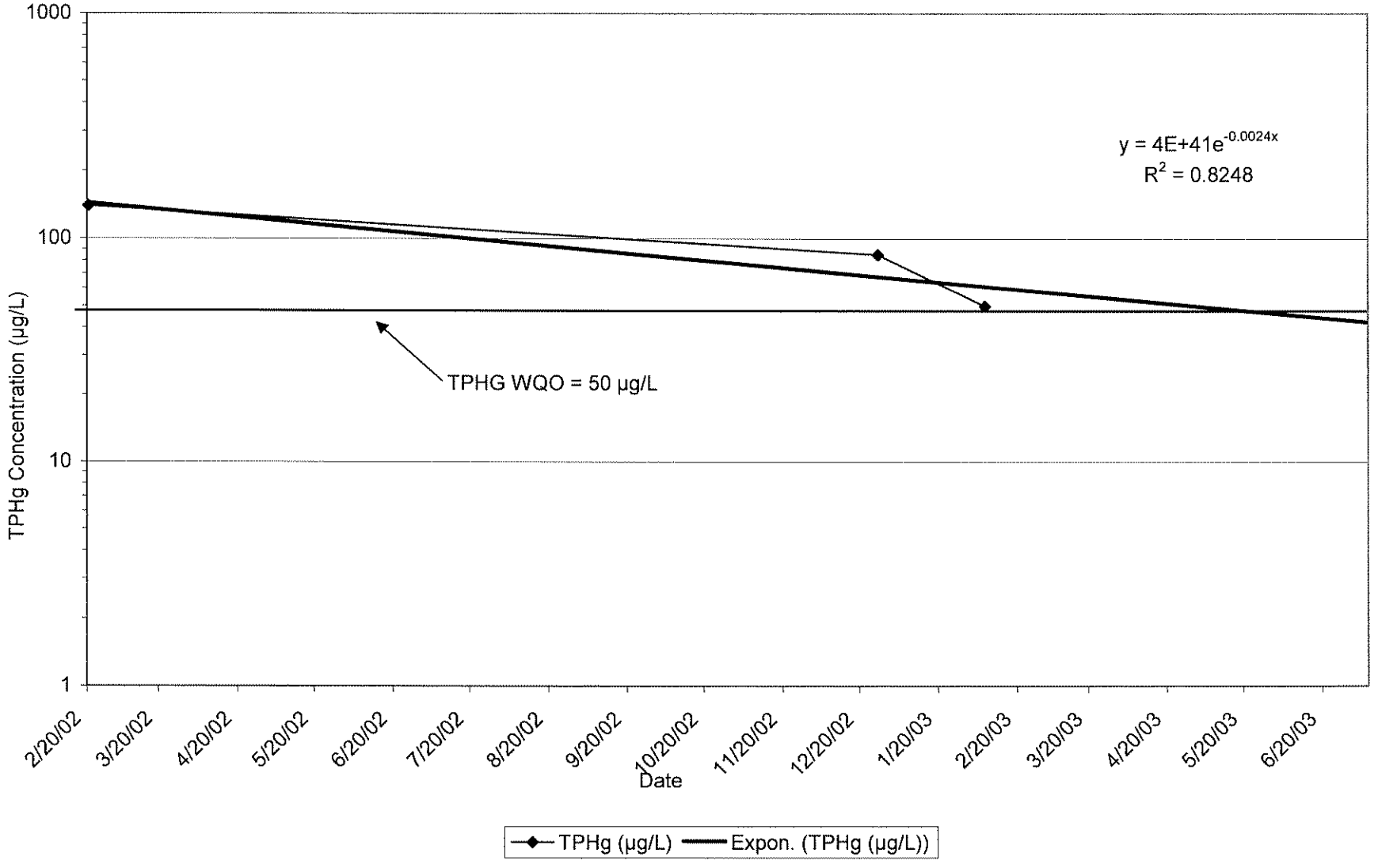


CHART 3: MW3 TPHg Concentration Time Series
Leggett Gas and Mini Mart
CRWQCB Case No. 1TMC418
LACO Project No. 4805.00



WORKSHEET 1: Degradation Rates and Calculated Years to Reach WQO for TPHg
Leggett Gas and Mini Mart
CRWQCB Case No. 1TMC418
LACO Project No. 4805.00

Monitoring Point/ Date			
MW-1	TPHg (µg/L)	Days (9/6/2001 to 2/7/2003)	477
9/6/01	310	Observed first order decay constant	0.0038
8/6/02	93	Published anaerobic biodegradation first order decay constant (slow)	0.0009
12/27/02	50	Published anaerobic biodegradation first order decay constant (fast)	0.0062
8/18/04	50	Years to achieve 50 µg/L in MW1	2.8
2/23/05	50	using 0.0038/day first order decay rate	
MW-2	TPHg (µg/L)	Days (2/20/2002 to 2/23/2005)	1099
2/20/02	190	Observed first order decay constant	0.0012
12/27/02	110	Published anaerobic biodegradation first order decay constant (slow)	0.0009
2/7/03	98	Published anaerobic biodegradation first order decay constant (fast)	0.0062
2/20/04	98	Years to achieve 50 µg/L in MW2	8.8
2/23/05	50	using 0.0012/day first order decay rate	
MW-3	TPHg (µg/L)	Days (2/20/2002 to 2/7/2003)	352
2/20/02	140	Observed first order decay constant	0.0029
12/27/02	85	Published anaerobic biodegradation first order decay constant (slow)	0.0009
2/7/03	50	Published anaerobic biodegradation first order decay constant (fast)	0.0062
2/20/04	50	Years to achieve 50 µg/L in MW3	3.7
2/23/05	50	using 0.0029/day first order decay rate	

Attachment 1

ATTACHEMNT 1: KEY TO ABBREVIATIONS

KEY TO ABBREVIATIONS	
Alk	-- Alkalinity
As	-- Arsenic
B	-- Bailer; diameter specified
BTEX	-- Benzene; Toluene; Ethylbenzene; m,p- and o- Xylenes
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: Korntved/Leggett Gas & Mini Mart
Project No.: 4805.00
Date: 2-23-05
Golbal ID No.: T0602300344
PM: GLM

Tech: SJD
Mob/Demob time: .15/.25
Travel time: 1.60
Time on site: 9:00
Time off site: 11:20
Mileage: 55

WELL No.:	DW1		MW1		MW2		MW3			
DIAMETER (in)			2.00		2.00		2.00			
SCREENED INTERVAL (ft)	XXXX		12.5-20		8.5-15		10-20			
DEPTH TO WATER (ft)			4.58		2.78		4.98			
	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)			40	36	95	124	-97	Ur		
FIELD INTRINSICS: DO (mg/L)			1.17	0.44	2.97	2.08	1.46	0.39		
FIELD INTRINSICS: OTHER (units)			—		—		—			
PURGE: TIME			9:40	9:48	10:06	10:16	10:36	10:44		
PURGE: METHOD (DHP/CB/B)			DHP		DHP		DHP			
PURGE: RATE (Lpm)			0.18		0.18		0.18			
PURGE: VOLUME (L)			1.40		1.80		1.40			
PURGE: COLOR	CLEAR	CLEAR	CLEAR	CLEAR	LT. BROWN CLOUDY	LT. BROWN CLOUDY	CLEAR	CLEAR		
PURGE: ODOR	NONE		NONE		NONE		MED. SULFUR			
PURGE: INTAKE DEPTH (FEET)			16.0		12.0		15.0			
SAMPLE: TIME	11:05		9:49		10:17		10:45			
SAMPLE: METHOD (DHP/CB/B)	1/2" B		DHP		DHP		DHP			
SAMPLE: ANALYTES	8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC		8260 List 1; TPHd/mo w/SGC			
SAMPLE: TOTAL DRAWDOWN (FEET)			1.08		0.25		0.80			
SAMPLE: REMARKS	—		—		—		—			
WELL CONDITION	good		good		good		good			
WASTE DRUMS										

DEPTH MEASUREMENTS ARE REFERENCED TO TOP OF CASING

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

REVISED:2/20/05

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

Project Name: KORNTVED/LEGGETT GAS & MINI MART
Project No.: 4805.00
Tech: SJD
Date: 2-23-05

WELL ID:	METER ACCURACY RANGE				
MW1	+/- 0.2 pH	+/- 0.5 °C	+/- 20 µmohs	+/- 2 mv	+/- 0.3 mg/L
TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
9:42	~	~	~	43	0.96
9:44	~	~	~	43	0.74
9:46	~	~	~	37	0.52
9:48	~	~	~	36	0.44

WELL ID: MW2

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:08	~	~	~	108	2.67
10:10	~	~	~	116	2.26
10:12	~	~	~	120	2.12
10:14	~	~	~	123	2.11
10:16	~	~	~	124	2.08

WELL ID: MW3

TIME	pH	TEMP (°C)	Ecw (µmohs)	ORP (mV)	DO (mg/L)
10:36	~	~	~	Ur	1.32
10:40	~	~	~	Ur	0.80
10:42	~	~	~	Ur	0.48
10:44	~	~	~	Ur	0.39

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: KORNTVED / LEGGETT GAS & MINI MART
Project No.: 4805.00
Tech: SJD
Date: 2-23-05

WELL ID: MW1		WELL ID: MW2		WELL ID: MW3		WELL ID:		WELL ID:		WELL ID:	
TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)	TIME	DTW (ft)
18	4.58	9:23	2.78	9:20	4.98						
:28	4.58	9:33	2.78	9:30	4.98						

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:	
ME	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: ANDY KORNTVED
Results & Invoice to:
Address: PO BOX 187
LEGGETT, CA 95585
Phone: 707.443.5054
Copies of Report to: LACO: GARY MANHART
Sampler (Sign & Print): SJD

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

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

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

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

PROJECT INFORMATION

Project Number: 4805.00
Project Name: LEGGETT GAS and MINI-MART
Purchase Order Number: TASK 3020

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
	4805-MW1-W	2-23-05	AM	GW	3	1	GEOTRACKER
	4805-MW2-W	↓	↓	↓	3	1	
	4805-MW3-W				3	1	
	4805-DW1-W				3	1	
	4805-QCTB-W				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

RECEIVED
LABORATORIES
MAR 0 9 2005
BY: JG

NORTH COAST LABORATORIES LTD.

____URGENT
____PRIORITY
____ROUTINE

DRG
GLM

FACSIMILE TRANSMISSION

DATE 3.8.05

TO:
NAME: LMCO
LOCATION:
ATTN: Gary Monhart
FAX:
PHONE:

FROM:
NAME: NORTH COAST LABORATORIES
LOCATION: 5680 WEST END RD
ARCATA, CA 95521-9202
FROM: Ellen
FAX: (707) 822-6831
PHONE: (707) 822-4649

Total number of pages including cover sheet 13

If you have any problems receiving this message,
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NORTH COAST LABORATORIES LTD.

March 08, 2005

Pvt. cust. paying on pickup

,

Attn: ANDY KORNTVED

RE: 4805.00, LEGGETT GAS and MINI-MART

Order No.: 0502530
Invoice No.: 48566
PO No.: TASK 3020
ELAP No. 1247-Expires July 2006

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	4805-MW1-W
01D	4805-MW1-W
02A	4805-MW2-W
02D	4805-MW2-W
03A	4805-MW3-W
03D	4805-MW3-W
04A	4805-DW1-W
04D	4805-DW1-W
05A	4805-QCTB-W

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

REPORT CERTIFIED BY

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

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

Printed on Recycled Paper

North Coast Laboratories, Ltd. **Date:** *08-Mar-05*

CLIENT: Pvt. cust. paying on pickup
Project: 4805.00, LEGGETT GAS and MINI-MART
Lab Order: 0502530

CASE NARRATIVE

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

EPA 8260B:
The surrogate recoveries were below the lower acceptance limit for all of the samples and the method blank. The response of the reporting limit standard was such that the analytes would have been detected even with the low recoveries; therefore, the data were accepted.

NORTH COAST LABORATORIES
5680 West End Road • Arcata, California 95521-9202 • 707-822-4649 • FAX 707-822-6831
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Date: 08-Mar-05
WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-MW1-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-01A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-Isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	70.8	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

Client Sample ID: 4805-MW1-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-01D

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	3/2/05	3/3/05
TPHC Motor Oil	ND	170	µg/L	1.0	3/2/05	3/3/05

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Date: 08-Mar-05
WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-MW2-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-02A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	72.8	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

Client Sample ID: 4805-MW2-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-02D

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	3/2/05	3/3/05
TPHC Motor Oil	ND	170	µg/L	1.0	3/2/05	3/3/05

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Date: 08-Mar-05
WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-MW3-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530 03A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	1.1	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	73.8	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

Client Sample ID: 4805-MW3-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-03D

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	3/2/05	3/3/05
TPHC Motor Oil	ND	170	µg/L	1.0	3/2/05	3/3/05

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Date: 08-Mar-05
WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-DW1-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-04A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	69.8	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

Client Sample ID: 4805-DW1-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-04D

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	3/2/05	3/3/05
TPHC Motor Oil	ND	170	µg/L	1.0	3/2/05	3/3/05

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WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-QCTB-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-05A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	69.5	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

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North Coast Laboratories, Ltd.

Date: 08-Mar-05

CLIENT: Pvt. cust. paying on pickup
Work Order: 0502530
Project: 4805.00, LEGGETT GAS and MINI-MART

QC SUMMARY REPORT

Method Blank

Sample ID: **MB 030105** Batch ID: **R33655** Test Code: **8260OXYW** Units: µg/L Analysis Date: **3/1/05 8:49:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301B** SeqNo: **487032**

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	0.1240	0.50									J
m,p-Xylene	0.2629	0.50									J
o-Xylene	0.2297	0.50									J
1,4-Dichlorobenzene-d4	0.738	0.10	1.00	0	73.9%	81	139	0			S

Sample ID: **MB 030105** Batch ID: **R33654** Test Code: **GASW-MS** Units: µg/L Analysis Date: **3/1/05 8:49:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301A** SeqNo: **487012**

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

Sample ID: **MB-13080** Batch ID: **13080** Test Code: **TPHDMW** Units: µg/L Analysis Date: **3/3/05 3:07:52 PM** Prep Date: **3/2/05**
Client ID: Run ID: **ORGC7_050303A** SeqNo: **488099**

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	ND	170									

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-Mar-05

CLIENT: Pvt. cust. paying on pickup
Work Order: 0502530
Project: 4805.00, LEGGETT GAS and MINI-MART

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05147** Batch ID: R33655 Test Code: **8260OXYW** Units: **µg/L** Analysis Date: **3/1/05 4:50:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301B** SeqNo: **487029**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.75	1.0	20.0	0	98.7%	80	120	0			
Tert-butyl alcohol (TBA)	454.7	10	400	0	114%	25	162	0			
Di-isopropyl ether (DIPE)	19.72	1.0	20.0	0	98.6%	80	120	0			
Ethyl tert-butyl ether (ETBE)	19.20	1.0	20.0	0	96.0%	77	120	0			
Benzene	18.16	0.50	20.0	0	90.8%	78	117	0			
Tert-amyl methyl ether (TAME)	20.30	1.0	20.0	0	101%	64	136	0			
Toluene	17.68	0.50	20.0	0	88.4%	80	120	0			
Ethylbenzene	19.96	0.50	20.0	0	99.8%	80	120	0			
m,p-Xylene	40.83	0.50	40.0	0	102%	80	120	0			
o-Xylene	19.21	0.50	20.0	0	96.0%	80	120	0			
1,4-Dichlorobenzene-d4	1.24	0.10	1.00	0	124%	81	139	0			

Sample ID: **LCSD-05147** Batch ID: R33655 Test Code: **8260OXYW** Units: **µg/L** Analysis Date: **3/1/05 5:20:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301B** SeqNo: **487030**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.86	1.0	20.0	0	99.3%	80	120	19.8	0.583%	20	
Tert-butyl alcohol (TBA)	436.0	10	400	0	109%	25	162	455	4.20%	20	
Di-isopropyl ether (DIPE)	19.55	1.0	20.0	0	97.8%	80	120	19.7	0.857%	20	
Ethyl tert-butyl ether (ETBE)	19.50	1.0	20.0	0	97.5%	77	120	19.2	1.52%	20	
Benzene	17.48	0.50	20.0	0	87.4%	78	117	18.2	3.76%	20	
Tert-amyl methyl ether (TAME)	20.12	1.0	20.0	0	101%	64	136	20.3	0.874%	20	
Toluene	17.91	0.50	20.0	0	89.5%	80	120	17.7	1.28%	20	
Ethylbenzene	19.51	0.50	20.0	0	97.6%	80	120	20.0	2.26%	20	
m,p-Xylene	39.98	0.50	40.0	0	100%	80	120	40.6	1.62%	20	
o-Xylene	19.35	0.50	20.0	0	96.8%	80	120	19.2	0.747%	20	
1,4-Dichlorobenzene-d4	1.23	0.10	1.00	0	123%	81	139	1.24	0.848%	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: Pvt. cust. paying on pickup
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Project: 4805.00, LEGGETT GAS and MINI-MART

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05148** Batch ID: **R33654** Test Code: **GASW-MS** Units: **µg/L** Analysis Date: **3/1/05 6:49:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301A** SeqNo: **487009**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,072	50	1,000	0	107%	80	120	0			

Sample ID: **LCSD-05148** Batch ID: **R33654** Test Code: **GASW-MS** Units: **µg/L** Analysis Date: **3/1/05 7:19:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301A** SeqNo: **487010**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,078	50	1,000	0	108%	80	120	1,070	0.555%	20	

Sample ID: **LCS-13080** Batch ID: **13080** Test Code: **TPHDMW** Units: **µg/L** Analysis Date: **3/3/05 1:16:30 PM** Prep Date: **3/2/05**
Client ID: Run ID: **ORGC7_050303A** SeqNo: **488097**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	490.1	50	500	0	98.0%	81	156	0			
TPHC Motor Oil	1,060	170	1,000	0	106%	90	144	0			

Sample ID: **LCSD-13080** Batch ID: **13080** Test Code: **TPHDMW** Units: **µg/L** Analysis Date: **3/3/05 1:34:57 PM** Prep Date: **3/2/05**
Client ID: Run ID: **ORGC7_050303A** SeqNo: **488098**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	462.6	50	500	0	92.5%	81	156	490	5.78%	15	
TPHC Motor Oil	1,062	170	1,000	0	106%	90	144	1,060	0.182%	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

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Chain of Custody

P. 1 of 1

0902530

LABORATORY NUMBER:

Attention: ANDY KORNTVED
Results & Invoice to:
Address: PO BOX 187
LEGGETT, CA 95585
Phone: 707.443.5054
Copies of Report to: LACO: GARY MANHART
Sampler (Sign & Print): SJD

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

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

CONTAINER CODES: 1—½ gal. pl; 2—250 ml pl; 3—500 ml p; 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: 4805.00
Project Name: LEGGETT GAS and MINI-MART
Purchase Order Number: TASK 3020

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 LIST 1	CONTAINER: 9	PRESERVATIVE: b	ANALYSIS: TPHd/mo w/SGC	CONTAINER: 7	PRESERVATIVE: —
	4805-MW1-W	2-23-05	AM	GW	3	1				
	4805-MW2-W	↓	↓	↓	3	1				
	4805-MW3-W	↓	↓	↓	3	1				
	4805-DW1-W	↓	↓	↓	3	1				
	4805-QCTB-W	↓	↓	↓	1					

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

cold intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	2-24-05 4139	K. Thompson	2/24/05 1639

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.

DRG
MTK

March 08, 2005

RECEIVED
LACO ASSOCIATES
APR 07 2005
BY: JG

Pvt. cust. paying on pickup

Order No.: 0502530
Invoice No.: 48566
PO No.: TASK 3020
ELAP No. 1247-Expires July 2006

Attn: ANDY KORNTVED

RE: 4805.00, LEGGETT GAS and MINI-MART

SAMPLE IDENTIFICATION

Fraction	Client Sample Description
01A	4805-MW1-W
01D	4805-MW1-W
02A	4805-MW2-W
02D	4805-MW2-W
03A	4805-MW3-W
03D	4805-MW3-W
04A	4805-DW1-W
04D	4805-DW1-W
05A	4805-QCTB-W

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

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

REPORT CERTIFIED BY

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

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North Coast Laboratories, Ltd. **Date:** *08-Mar-05*

CLIENT: Pvt. cust. paying on pickup
Project: 4805.00, LEGGETT GAS and MINI-MART
Lab Order: 0502530

CASE NARRATIVE

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

EPA 8260B:
The surrogate recoveries were below the lower acceptance limit for all of the samples and the method blank. The response of the reporting limit standard was such that the analytes would have been detected even with the low recoveries; therefore, the data were accepted.

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Date: 08-Mar-05
WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-MW1-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-01A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	70.8	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

Client Sample ID: 4805-MW1-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-01D

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	3/2/05	3/3/05
TPHC Motor Oil	ND	170	µg/L	1.0	3/2/05	3/3/05

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Date: 08-Mar-05
WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-MW2-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-02A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	72.8	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

Client Sample ID: 4805-MW2-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-02D

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	3/2/05	3/3/05
TPHC Motor Oil	ND	170	µg/L	1.0	3/2/05	3/3/05

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Date: 08-Mar-05
WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-MW3-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-03A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	1.1	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	73.8	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

Client Sample ID: 4805-MW3-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-03D

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	3/2/05	3/3/05
TPHC Motor Oil	ND	170	µg/L	1.0	3/2/05	3/3/05

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

Date: 08-Mar-05
WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-DW1-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-04A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	69.8	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

Client Sample ID: 4805-DW1-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-04D

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	3/2/05	3/3/05
TPHC Motor Oil	ND	170	µg/L	1.0	3/2/05	3/3/05

NORTH COAST LABORATORIES
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Date: 08-Mar-05
WorkOrder: 0502530

ANALYTICAL REPORT

Client Sample ID: 4805-QCTB-W **Received:** 2/24/05 **Collected:** 2/23/05 0:00
Lab ID: 0502530-05A

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

Parameter	Result	Limit	Units	DF	Extracted	Analyzed
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1.0		3/1/05
Tert-butyl alcohol (TBA)	ND	10	µg/L	1.0		3/1/05
Di-isopropyl ether (DIPE)	ND	1.0	µg/L	1.0		3/1/05
Ethyl tert-butyl ether (ETBE)	ND	1.0	µg/L	1.0		3/1/05
Benzene	ND	0.50	µg/L	1.0		3/1/05
Tert-amyl methyl ether (TAME)	ND	1.0	µg/L	1.0		3/1/05
Toluene	ND	0.50	µg/L	1.0		3/1/05
Ethylbenzene	ND	0.50	µg/L	1.0		3/1/05
m,p-Xylene	ND	0.50	µg/L	1.0		3/1/05
o-Xylene	ND	0.50	µg/L	1.0		3/1/05
Surrogate: 1,4-Dichlorobenzene-d4	69.5	80.8-139	% Rec	1.0		3/1/05

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		3/1/05

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North Coast Laboratories, Ltd.

Date: 08-Mar-05

CLIENT: Pvt. cust. paying on pickup
Work Order: 0502530
Project: 4805.00, LEGGETT GAS and MINI-MART

QC SUMMARY REPORT

Method Blank

Sample ID: **MB 030105** Batch ID: **R33655** Test Code: **8260OXYW** Units: **µg/L** Analysis Date: **3/1/05 8:49:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301B** SeqNo: **487032**

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	0.1240	0.50									J
m,p-Xylene	0.2629	0.50									J
o-Xylene	0.2297	0.50									J
1,4-Dichlorobenzene-d4	0.738	0.10	1.00	0	73.9%	81	139	0			S

Sample ID: **MB 030105** Batch ID: **R33654** Test Code: **GASW-MS** Units: **µg/L** Analysis Date: **3/1/05 8:49:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301A** SeqNo: **487012**

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

Sample ID: **MB-13080** Batch ID: **13080** Test Code: **TPHDMW** Units: **µg/L** Analysis Date: **3/3/05 3:07:52 PM** Prep Date: **3/2/05**
Client ID: Run ID: **ORGC7_050303A** SeqNo: **488099**

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	ND	170									

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-Mar-05

CLIENT: Pvt. cust. paying on pickup
Work Order: 0502530
Project: 4805.00, LEGGETT GAS and MINI-MART

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05147** Batch ID: **R33655** Test Code: **8260OXYW** Units: **µg/L** Analysis Date: **3/1/05 4:50:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301B** SeqNo: **487029**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.75	1.0	20.0	0	98.7%	80	120	0			
Tert-butyl alcohol (TBA)	454.7	10	400	0	114%	25	162	0			
Di-isopropyl ether (DIPE)	19.72	1.0	20.0	0	98.6%	80	120	0			
Ethyl tert-butyl ether (ETBE)	19.20	1.0	20.0	0	96.0%	77	120	0			
Benzene	18.16	0.50	20.0	0	90.8%	78	117	0			
Tert-amyl methyl ether (TAME)	20.30	1.0	20.0	0	101%	64	136	0			
Toluene	17.68	0.50	20.0	0	88.4%	80	120	0			
Ethylbenzene	19.96	0.50	20.0	0	99.8%	80	120	0			
m,p-Xylene	40.63	0.50	40.0	0	102%	80	120	0			
o-Xylene	19.21	0.50	20.0	0	96.0%	80	120	0			
1,4-Dichlorobenzene-d4	1.24	0.10	1.00	0	124%	81	139	0			

Sample ID: **LCSD-05147** Batch ID: **R33655** Test Code: **8260OXYW** Units: **µg/L** Analysis Date: **3/1/05 5:20:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301B** SeqNo: **487030**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.86	1.0	20.0	0	99.3%	80	120	19.8	0.583%	20	
Tert-butyl alcohol (TBA)	436.0	10	400	0	109%	25	162	455	4.20%	20	
Di-isopropyl ether (DIPE)	19.55	1.0	20.0	0	97.8%	80	120	19.7	0.857%	20	
Ethyl tert-butyl ether (ETBE)	19.50	1.0	20.0	0	97.5%	77	120	19.2	1.52%	20	
Benzene	17.48	0.50	20.0	0	87.4%	78	117	18.2	3.76%	20	
Tert-amyl methyl ether (TAME)	20.12	1.0	20.0	0	101%	64	136	20.3	0.874%	20	
Toluene	17.91	0.50	20.0	0	89.5%	80	120	17.7	1.28%	20	
Ethylbenzene	19.51	0.50	20.0	0	97.6%	80	120	20.0	2.26%	20	
m,p-Xylene	39.98	0.50	40.0	0	100%	80	120	40.6	1.62%	20	
o-Xylene	19.35	0.50	20.0	0	96.8%	80	120	19.2	0.747%	20	
1,4-Dichlorobenzene-d4	1.23	0.10	1.00	0	123%	81	139	1.24	0.848%	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: Pvt. cust. paying on pickup
Work Order: 0502530
Project: 4805.00, LEGGETT GAS and MINI-MART

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID: **LCS-05148** Batch ID: **R33654** Test Code: **GASW-MS** Units: **µg/L** Analysis Date: **3/1/05 6:49:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301A** SeqNo: **487009**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,072	50	1,000	0	107%	80	120	0			

Sample ID: **LCSD-05148** Batch ID: **R33654** Test Code: **GASW-MS** Units: **µg/L** Analysis Date: **3/1/05 7:19:00 AM** Prep Date:
Client ID: Run ID: **ORGCMS2_050301A** SeqNo: **487010**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gasoline	1,078	50	1,000	0	108%	80	120	1,070	0.555%	20	

Sample ID: **LCS-13080** Batch ID: **13080** Test Code: **TPHDMW** Units: **µg/L** Analysis Date: **3/3/05 1:16:30 PM** Prep Date: **3/2/05**
Client ID: Run ID: **ORGC7_050303A** SeqNo: **488097**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	490.1	50	500	0	98.0%	81	156	0			
TPHC Motor Oil	1,060	170	1,000	0	106%	90	144	0			

Sample ID: **LCSD-13080** Batch ID: **13080** Test Code: **TPHDMW** Units: **µg/L** Analysis Date: **3/3/05 1:34:57 PM** Prep Date: **3/2/05**
Client ID: Run ID: **ORGC7_050303A** SeqNo: **488098**

Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	462.6	50	500	0	92.5%	81	156	490	5.78%	15	
TPHC Motor Oil	1,062	170	1,000	0	106%	90	144	1,060	0.182%	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: 0502530

Attention: ANDY KORNTVED
Results & Invoice to:
Address: PO BOX 187
LEGGETT, CA 95585
Phone: 707.443.5054
Copies of Report to: LACO: GARY MANHART
Sampler (Sign & Print): SJD

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

REPORTING REQUIREMENTS: State Forms [ ]
Preliminary: FAX [✓] Verbal [ ] By:
Final Report: FAX [ ] Verbal [ ] By:

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

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

PROJECT INFORMATION

Project Number: 4805.00
Project Name: LEGGETT GAS and MINI-MART
Purchase Order Number: TASK 5020

LAB ID	SAMPLE ID	DATE	TIME	MATRIX*	ANALYSIS: 8260 LIST 1 (PRESERVATIVE: b; CONTAINER: 9)	ANALYSIS: TPHd/mo w/SGC (PRESERVATIVE: —; CONTAINER: 7)
	4805-MW1-W	2-23-05	AM	GW	3	1
	4805-MW2-W	↓	↓	↓	3	1
	4805-MW3-W				3	1
	4805-DW1-W				3	1
	4805-QCTB-W				1	

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

GEOTRACKER

cold, intact

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
STEVE DAVIS	2-24-05 4139 PD	K. Thompson	2/24/05 1639

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

EPA 8260B

North Coast Laboratories Ltd.
5680 W. End Road
Arcata, CA 95521

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Loretta Tomlin
Project: 0106100-1A
Sample ID: 3472 MW1
Sample Collection Date: 6/1/01

ARF: 35576
APPL ID AP17625
QCG: $8260-010614AH-36588

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8260B	1,1,1,2-Tetrachloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,1,1-Trichloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,1,2,2-Tetrachloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,1,2-Trichloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,1-Dichloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,1-Dichloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,2-Dichlorobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,2-Dichloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,2-Dichloropropane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,3-Dichlorobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1,4-Dichlorobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	1H-Indene, 2,3-dihydro-1-methyl-	65	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	1H-Indene, 2,3-dihydro-4-methyl-	60	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	1H-Indene, 2,3-dihydro-5-methyl-	23	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Benzene	12	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Benzene, (2-methyl-1-propenyl)-	26	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Benzene, propyl-	30	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Bromobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Bromodichloromethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Bromoform	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Bromomethane	Not detected	1	ug/L	6/14/01	6/14/01
EPA 8260B	Carbon tetrachloride	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Chlorobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Chloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Chloroform	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Chloromethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	cis-1,2-Dichloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	cis-1,3-Dichloropropene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Cyclohexane	130	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Cyclohexane, 1-methyl	58	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Cyclohexane, methyl	180	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Cyclohexene, 4-methyl	22	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Cyclopentane	43	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Cyclopentane, 1,2,3	21	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Cyclopentane, 1,2-di	76	TIC	ug/L	6/14/01	6/14/01

Run #: 0614H10
Instrument: HEWEY
Sequence: H010608
Dilution Factor: 1
Initials: RP

Printed: 6/18/01 1:57:45 PM

EPA 8260B

North Coast Laboratories Ltd.
5680 W. End Road
Arcata, CA 95521

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Loretta Tomlin
Project: 0106100-1A
Sample ID: 3472 MW1
Sample Collection Date: 6/1/01

ARF: 35576
APPL ID AP17625
QCG: $8260-010614AH-36588

Method	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
EPA 8260B	Cyclopentane, 1,3-di	50	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Cyclopentane, ethyl	38	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Cyclopentane, methyl	170	TIC	ug/L	6/14/01	6/14/01
EPA 8260B	Dibromochloromethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Dibromomethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Dichlorodifluoromethane	Not detected	1	ug/L	6/14/01	6/14/01
EPA 8260B	Ethylbenzene	25	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Freon 113	Not detected	1	ug/L	6/14/01	6/14/01
EPA 8260B	Methylene chloride	Not detected	5	ug/L	6/14/01	6/14/01
EPA 8260B	Tetrachloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Toluene	0.57	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	trans-1,2-Dichloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	trans-1,3-Dichloropropene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Trichloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Trichlorofluoromethane	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Vinyl chloride	Not detected	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Xylenes	45	0.5	ug/L	6/14/01	6/14/01
EPA 8260B	Surrogate recovery (BFB)	105	75-125	%	6/14/01	6/14/01
EPA 8260B	Surrogate recovery (DBFM)	99.9	75-125	%	6/14/01	6/14/01
EPA 8260B	Surrogate recovery (DCA)	102	75-125	%	6/14/01	6/14/01
EPA 8260B	Surrogate recovery (TOL)	92.3	75-125	%	6/14/01	6/14/01

Run #: 0614H10
Instrument: HEWEY
Sequence: H010608
Dilution Factor: 1
Initials: RP

Printed: 6/18/01 1:57:45 PM

Method Blank
EPA 8260B

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Blank Name/QCG: **010614W - 36588**
Batch ID: $8260-010614AH

mple Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
ANK	1,1,1,2-Tetrachloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,1,1-Trichloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,1,2,2-Tetrachloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,1,2-Trichloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,1-Dichloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,1-Dichloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,2-Dichlorobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,2-Dichloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,2-Dichloropropane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,3-Dichlorobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	1,4-Dichlorobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Benzene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Bromobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Bromodichloromethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Bromoform	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Bromomethane	Not detected	1	ug/L	6/14/01	6/14/01
ANK	Carbon tetrachloride	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Chlorobenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Chloroethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Chloroform	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Chloromethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	cis-1,2-Dichloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	cis-1,3-Dichloropropene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Dibromochloromethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Dibromomethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Dichlorodifluoromethane	Not detected	1	ug/L	6/14/01	6/14/01
ANK	Ethylbenzene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Freon 113	Not detected	1	ug/L	6/14/01	6/14/01
ANK	Methylene chloride	Not detected	5	ug/L	6/14/01	6/14/01
ANK	Tetrachloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Toluene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	trans-1,2-Dichloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	trans-1,3-Dichloropropene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Trichloroethene	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Trichlorofluoromethane	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Vinyl chloride	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Xylenes	Not detected	0.5	ug/L	6/14/01	6/14/01
ANK	Surrogate recovery (BFB)	100	75-125	%	6/14/01	6/14/01
ANK	Surrogate recovery (DBFM)	97.5	75-125	%	6/14/01	6/14/01

Run #: 0614H04
Instrument: HEWEY
Sequence: H010608
Initials: RP

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Method Blank
EPA 8260B

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Blank Name/QCG: **010614W - 36588**
Batch ID: $8260-010614AH

ample Type	Analyte	Result	PQL	Units	Extraction Date	Analysis Date
ANK	Surrogate recovery (DCA)	98.2	75-125	%	6/14/01	6/14/01
ANK	Surrogate recovery (TOL)	93.1	75-125	%	6/14/01	6/14/01

Run #: 0614H04
Instrument: HEWEY
Sequence: H010608
Initials: RP

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Laboratory Control Spike Recoveries

EPA 8260B

APPL ID: **010614W-17625 LCS - 36588**
Batch ID: $8260-010614AH

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
,1,2-Tetrachloroethane	10.00	9.96	9.68	99.6	96.8	75-125	2.9	25
,1-Trichloroethane	10.00	10.0	10.2	100	102	75-125	2.0	25
,2,2-Tetrachloroethane	10.00	9.50	9.20	95.0	92.0	75-125	3.2	25
,2-Trichloroethane	10.00	9.85	10.1	98.5	101	75-125	2.5	25
-Dichloroethane	10.00	10.7	10.6	107	106	75-125	0.94	25
-Dichloroethene	10.00	10.0	10.3	100	103	75-125	3.0	25
-Dichlorobenzene	10.00	9.97	9.57	99.7	95.7	75-125	4.1	25
-Dichloroethane	10.00	10.0	9.82	100	98.2	75-125	1.8	25
-Dichloropropane	10.00	10.2	10.1	102	101	75-125	0.99	25
-Dichlorobenzene	10.00	9.95	9.74	99.5	97.4	75-125	2.1	25
-Dichlorobenzene	10.00	9.79	9.60	97.9	96.0	75-125	2.0	25
nzene	10.00	10.0	9.84	100	98.4	75-125	1.6	25
omobenzene	10.00	10.1	9.66	101	96.6	75-125	4.5	25
omodichloromethane	10.00	10.2	10.0	102	100	75-125	2.0	25
omoform	10.00	9.72	9.55	97.2	95.5	75-125	1.8	25
omomethane	10.00	8.63	7.81	86.3	78.1	75-125	10.0	25
rbon tetrachloride	10.00	10.1	10.2	101	102	75-125	0.99	25
lorobenzene	10.00	9.90	9.68	99.0	96.8	75-125	2.2	25
loroethane	10.00	9.40	9.35	94.0	93.5	75-125	0.53	25
oroform	10.00	10.7	10.4	107	104	75-125	2.8	25
oromethane	10.00	7.86	7.97	78.6	79.7	75-125	1.4	25
-1,2-Dichloroethene	10.00	10.1	9.81	101	98.1	75-125	2.9	25
-1,3-Dichloropropene	10.00	10.2	10.1	102	101	75-125	0.99	25
romochloromethane	10.00	9.82	9.61	98.2	96.1	75-125	2.2	25
romomethane	10.00	10.0	9.92	100	99.2	75-125	0.80	25

Comments: _____

Primary	SPK	DUP
Extraction Date :	6/14/01	6/14/01
Analysis Date :	6/14/01	6/14/01
Instrument :	HEWEY	HEWEY
Run :	0614H02	0614H03
Analyst :	RP	

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Laboratory Control Spike Recoveries

EPA 8260B

APPL ID: **010614W-17625 LCS - 36588**
Batch ID: $8260-010614AH

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
hlorodifluoromethane	10.00	8.27	8.01	82.7	80.1	75-125	3.2	25
ylbenzene	10.00	9.92	9.72	99.2	97.2	75-125	2.0	25
on 113	10.00	10.0	10.3	100	103	75-125	3.0	25
thylene chloride	10.00	9.80	9.78	98.0	97.8	75-125	0.20	25
rachloroethene	10.00	9.48	9.55	94.8	95.5	75-125	0.74	25
uene	10.00	10.2	10.1	102	101	75-125	0.99	25
ıs-1,2-Dichloroethene	10.00	9.62	9.48	96.2	94.8	75-125	1.5	25
ıs-1,3-Dichloropropene	10.00	10.1	9.97	101	99.7	75-125	1.3	25
chloroethene	10.00	9.78	9.80	97.8	98.0	75-125	0.20	25
chlorofluoromethane	10.00	9.78	9.71	97.8	97.1	75-125	0.72	25
yl chloride	10.00	9.17	9.12	91.7	91.2	75-125	0.55	25
enes	30.00	30.1	29.5	100	98.3	75-125	2.0	25
rrogate recovery (BFB)	30.888	30.8	31.1	99.7	101	75-125		
rrogate recovery (DBFM)	31.249	30.3	30.6	97.0	97.9	75-125		
rrogate recovery (DCA)	29.710	28.2	28.1	94.9	94.6	75-125		
rrogate recovery (TOL)	31.754	30.3	29.9	95.4	94.2	75-125		

Comments: _____

Primary	SPK	DUP
Extraction Date :	6/14/01	6/14/01
Analysis Date :	6/14/01	6/14/01
Instrument :	HEWEY	HEWEY
Run :	0614H02	0614H03
Analyst :	RP	

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