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LETTER OF TRANSMITTAL

To: Alameda County Dept
of Env Health
1131 Harbor Bay Pky
Oakland, CA 94502
ATTN: Ms. Juliet Shin

Date: November 8, 1995

Project: Joe Sio Chevrolet
SIO101/12104.2001

1) **For Review and Comment ( )**
2) **For Approval ( )**
3) **As Requested ( )**
4) **For Your Use (x)**

We are enclosing (x) / Sending under separate cover ( ):

No. of Copies	Description
1	Bound "Quarterly Groundwater Monitoring Report, Fourth Quarter 1995"

Comments:

Dear Ms. Shin:

Philip Environmental Services Corporation is please to submit the enclosed document. If you have any questions, please do not hesitate to call me at (510) 420-7910.

By: David C. Tight

cc: Ms. Florence Ann Connors

PHILIP ENVIRONMENTAL SERVICES CORPORATION
5901 Christie Avenue • Suite 501 • Emeryville, CA 94608
(510) 420-7910 • (800) 400-9372 (California only) • Fax (510) 658-7990

QUARTERLY GROUNDWATER MONITORING REPORT
Fourth Quarter 1995

JOE SIO CHEVROLET
914-916 San Pablo Avenue
Albany, California
STID-3808

November 7, 1995

Prepared for:

MS. FLORENCE ANN CONNORS
Executor for the Estate of Josephine A. Dibble
1658 Del Dayo Drive
Carmichael, California 95608

Prepared by:

PHILIP ENVIRONMENTAL SERVICES CORPORATION
5901 Christie Avenue, Suite 501
Emeryville, California 94608

SIO101/12104

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November 7, 1995
SIO101/12104

Ms. Florence Ann Connors
Executor for the Estate of Josephine A. Dibble
1658 Del Dayo Drive
Carmichael, California 95608

Subject: **QUARTERLY GROUNDWATER MONITORING REPORT**
Fourth Quarter 1995
Joe Sio Chevrolet
914-916 San Pablo Avenue, Albany, California

Dear Ms. Connors:

Philip Environmental Services Corporation (Philip), is pleased to submit the following quarterly groundwater monitoring report for Joe Sio Chevrolet, located at 914-916 San Pablo Avenue in Albany, California (see Figure 1). The groundwater monitoring and sampling was conducted by Philip in October 1995.

BACKGROUND

Two 550-gallon underground storage tanks (USTs) were removed from the site on March 20, 1989 by Petroleum Engineering, Inc. One UST contained gasoline and was located under the sidewalk between the former building and San Pablo Avenue. The other UST contained waste oil and was located adjacent to the southwest corner of the former building (see Figure 2). Soil samples collected from beneath the former gasoline UST contained concentrations of total petroleum hydrocarbons (TPH) ranging between 270 and 1,300 milligrams per kilogram (mg/kg). As a result of the TPH in the soil samples from beneath the former gasoline UST, Alameda County Department of Environmental Health (ACDEH) requested that additional excavation be conducted in the vicinity of the former gasoline UST, and groundwater monitoring wells be installed and sampled to determine groundwater quality, flow direction, and gradient.

On July 24 and 25, 1991, Aqua Terra Technologies (ATT) of Walnut Creek, California, installed three groundwater monitoring wells (MW-1, MW-2, and MW-3) at the site (see Figure 2). The three groundwater monitoring wells were developed on July 31, 1991 and sampled on August 7, 1991. Elevated concentrations of TPH and benzene, toluene, ethylbenzene and total xylenes (BTEX) were found in the groundwater sample collected from well MW-1 (see Table 1). At the time the wells were sampled,

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ATT determined that the groundwater flow direction was to the west-northwest with an approximate hydraulic gradient of 0.01 feet/foot.

In a letter dated November 9, 1993, Ms. Juliet Shin (ACDEH) directed that quarterly groundwater monitoring be resumed at the site. In April 1994, Philip received authority to proceed with quarterly groundwater monitoring at the site.

MONITORING ACTIVITIES

The fourth quarter 1995 monitoring event was conducted on October 17, 1995. In each well, the depth to groundwater and the presence or absence of phase-separated hydrocarbons (PSH) were determined. Groundwater samples were collected and analyzed according to U. S. Environmental Protection Agency (EPA) guidelines to determine the concentrations of TPH as gasoline (TPHg), BTEX, and total lead. In addition, groundwater from monitoring well MW-3 was analyzed for cadmium, chromium, zinc, and nickel. The groundwater sample from well MW-3 was field filtered using a 0.45 μm filter prior to the analysis of the five metals.

The ground water sample from well MW-2 was also analyzed for halogenated volatile organics in response to matrix interference observed during the 3rd and 4th quarter 1994 monitoring events, per the request of Ms. Juliet Shin (ACDEH) in her November 2, 1994 correspondence to you.

The monitoring and sampling procedures are presented in Appendix A. Field data sheets are presented in Appendix B. Western Environmental Science & Technology, located in Davis, California, performed the analysis. The analytical results and detection limits are presented in Table 1.

RESULTS

The groundwater elevation in the monitoring wells beneath the site on October 17, 1995 ranged from 30.74 to 32.21 feet above mean sea level (see Table 2). A contour map of these data is presented in Figure 3. The approximate groundwater flow direction based on the October data is to the west with an approximate hydraulic gradient of 0.008 feet/foot. This flow direction, while inconsistent with the flow directions seen during the last three monitoring events (to the northeast during first quarter 1995, to the southeast during the second quarter 1995, and to the south during the third quarter 1995), is consistent with the flow direction of the equivalent event last year (fourth quarter 1994) and follows the anticipated groundwater flow direction, based on topography and proximity to the San Francisco Bay. It is possible that the flow reversals during the first three quarters of 1995 are manifestations of an unusually wet winter.

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The results of the chemical analyses are presented in Table 1. No PSH were detected in any of the groundwater monitoring wells. No detectable concentrations of TPHg or BTEX were found in the groundwater samples collected from well MW-2 or MW-3. Concentrations of petroleum hydrocarbons were found in the groundwater sample collected from well MW-1, including 90 micrograms per liter (µg/L) of TPHg and 29 µg/L of benzene. These levels are among the lowest levels recorded for those analytes in well MW-1. Similar contaminant levels were found in the duplicate groundwater sample from MW-1.

Trace concentrations of lead were detected in the groundwater samples from both MW-1 and MW-2. Both lead levels are below the primary maximum contaminant level (MCL) and are not considered to be of concern.

Elevated concentrations of tetrachloroethene (PCE) continue to be found in the groundwater sample from well MW-2, at 60 µg/L. In addition, levels of carbon tetrachloride were found slightly above the MCL of 1.1 µg/L in the sample. Although the PCE level exceeds its 5 µg/L MCL, there is no known source of PCE onsite, and an offsite source for the halogenated hydrocarbons is likely. The levels of PCE have decreased since first encountered in January 1995.

Chain-of-custody documentation and certified analytical results are presented in Appendix C. Purge and rinsate water was stored on the site in 55-gallon drums. The drums were labeled by the field sampling technician. Purge and rinsate water disposal will be arranged in the future.

CONCLUSIONS

The recurrence of TPHg and BTEX in the groundwater samples collected from well MW-1 suggests that the groundwater below the former gasoline UST continues to be impacted. Due to the abundance of utilities present beneath the sidewalk overlying the former tank location, as documented in Philip's correspondence to you dated May 5, 1995, no corrective action is proposed at this time.

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The next quarterly groundwater monitoring event is scheduled for January 1996. Philip appreciates the opportunity to provide you with quality consulting and environmental services. Please feel free to contact us if we can provide further assistance.

Sincerely,

PHILIP ENVIRONMENTAL SERVICES CORPORATION

Daryl A. Lamb
Field Services Supervisor

David C. Tight, R.G. No. 4603
Investigation/Remediation Manager

Attachments:

Figure 1 - Site Location Map
Figure 2 - Site Plan
Figure 3 - Groundwater Elevation Contours

Table 1 - Groundwater Analytical Data-Petroleum Hydrocarbons Fuel Analysis
Table 1a - Groundwater Analytical Data-Chlorinated Hydrocarbons Analysis
Table 2 - Groundwater Elevation Data

Appendix A - Groundwater Sampling and Analysis Procedures
Appendix B - Water Sample Field Data Sheets
Appendix C - Chain-of-Custody Records and Certified Analytical Reports

cc: Ms. Juliet Shin (ACDEH)

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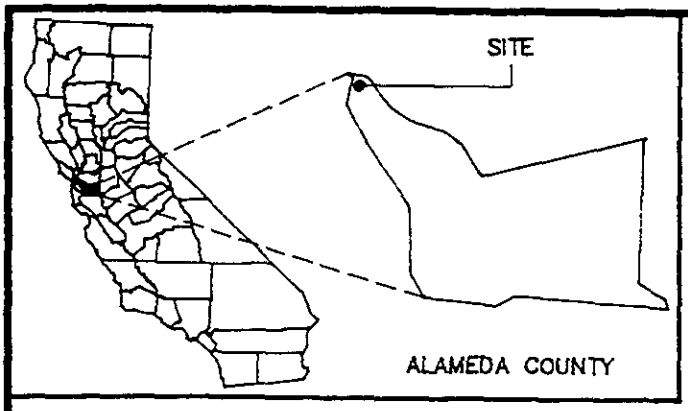
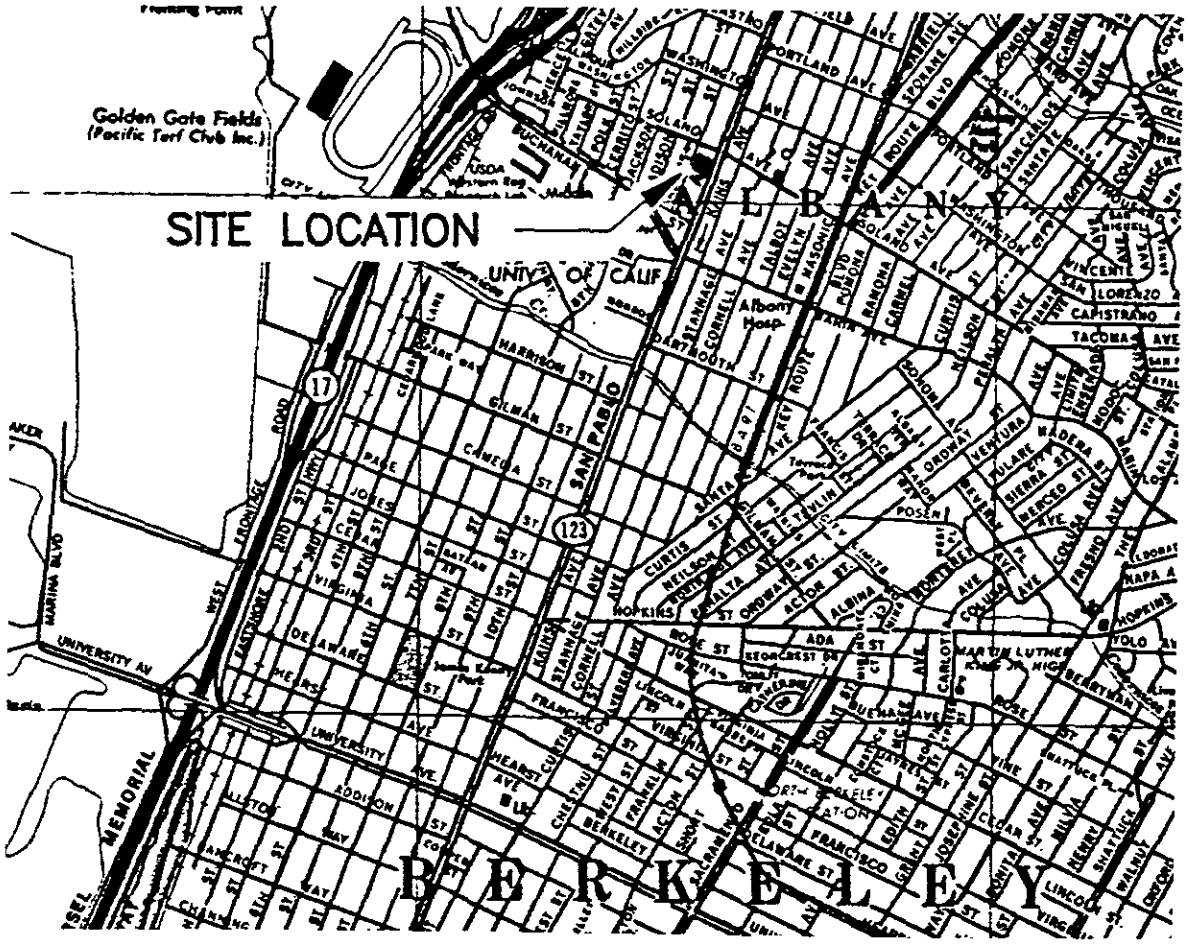
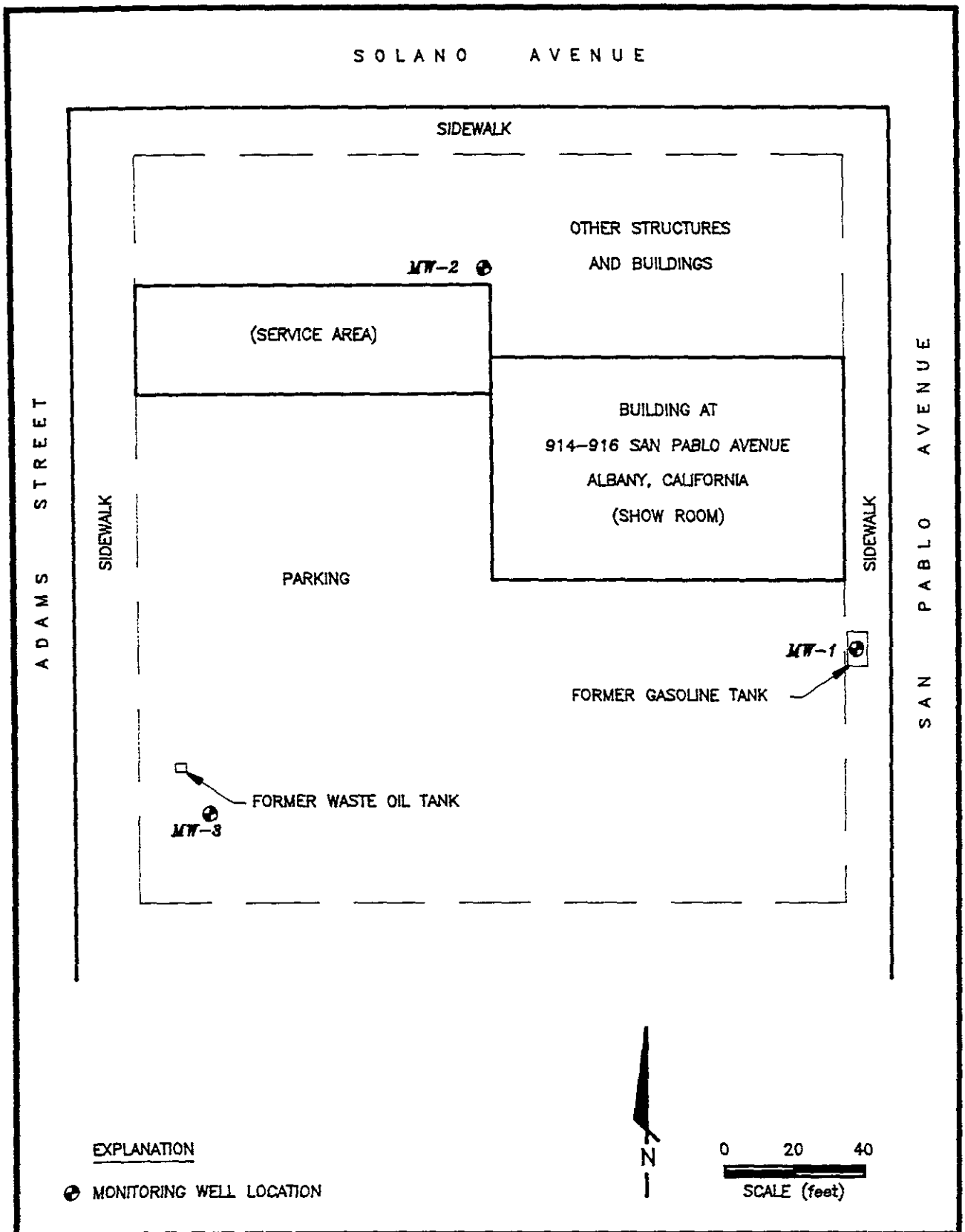
FIGURES 1 - 3





PHILIP ENVIRONMENTAL	SITE LOCATION MAP Joe Sio Chevrolet 914 – 916 San Pablo Avenue Albany, California	Figure 1
		Project No. 12104
		Drawn By SBW / Date 5/12/95
Reviewed By : DAL	Date : 11-6-95	Drawing No. ASI00109



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SITE PLAN

Joe Sio Chevrolet
914 – 916 San Pablo Avenue
Albany, California

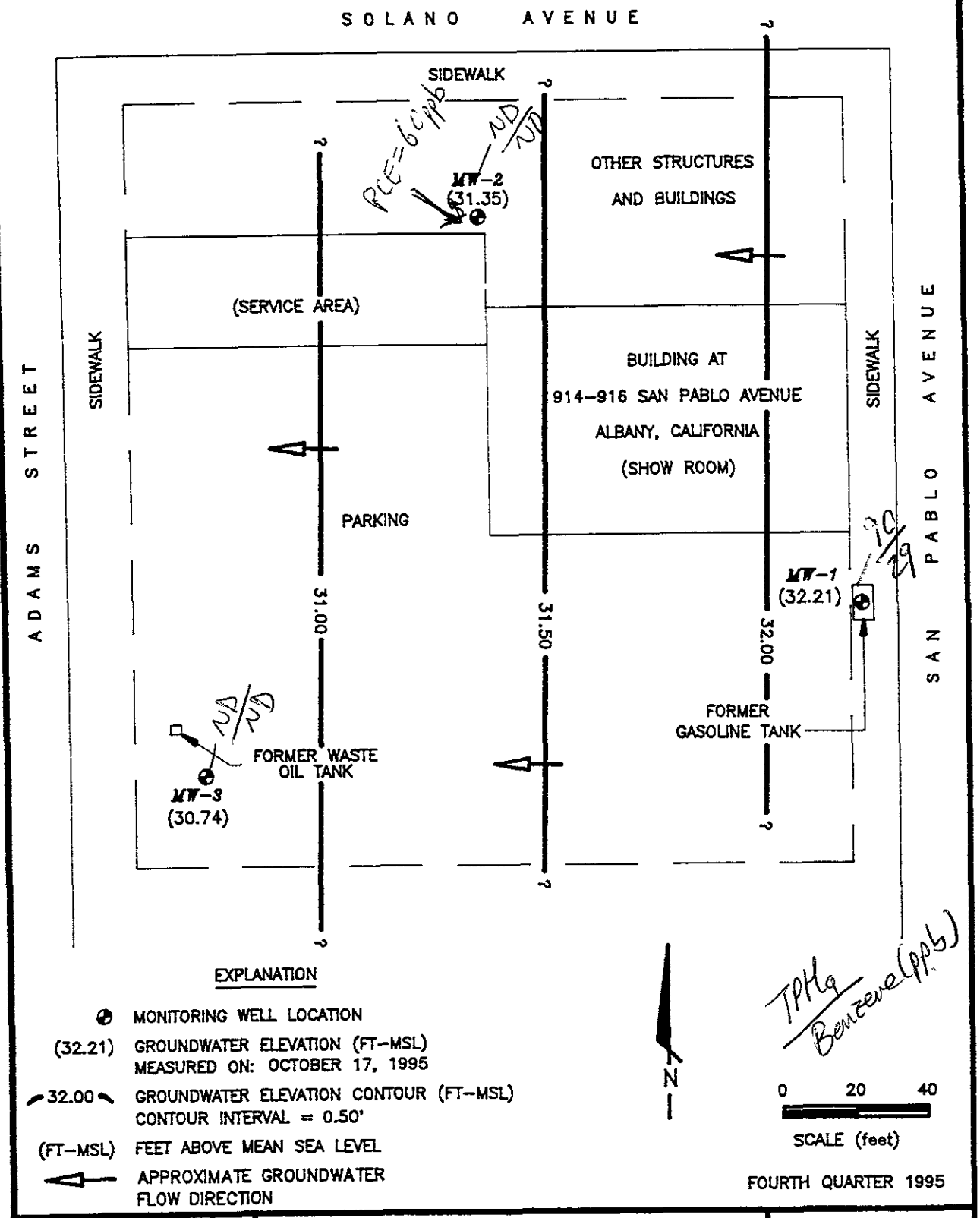
Figure 2

Project No. 12104

Drawn By SBW | Date 5/12/95

Reviewed By : DAL | Date : 11.6.95

Drawing No. ASI00102



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GROUNDWATER ELEVATION CONTOURS
Joe Sio Chevrolet
914 – 916 San Pablo Avenue
Albany, California

Figure 3

Project No.	12104
Drawn By: SBW	Date: 10/30/95
Reviewed By: DPL	Date: 11/6/95
Drawing No.	AS100111

TABLES 1 - 2

TABLE 1
GROUNDWATER ANALYTICAL DATA
PETROLEUM HYDROCARBONS FUEL ANALYSIS

Joe Sio Chevrolet
914-916 San Pablo Avenue, Albany, California

Monitoring Well No.	Date Sampled	Sample No.	TPH Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Total Oil and Grease (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Nickel (mg/L)	Zinc (mg/L)
	EPA Analytical Method:		8015m	602	602	602	602	9070	AA	AA	AA	AA	AA
Groundwater Analyses:													
MW-1	8/7/91	MW-1	110	16	2	0.7	15	NA	NA	NA	NA	NA	NA
	4/15/94	MW01-041594	2,500	880	22	79	47	NA	NA	NA	0.0093	NA	NA
	7/14/94	MW01-071494	470	110	22	21	67	NA	NA	NA	0.0059	NA	NA
	10/14/94	MW01-101494	380	86	17	24	77	NA	NA	NA	0.008	NA	NA
	1/17/95	MW01-011795	600	250	11	5.3	56	NA	NA	NA	0.0098	NA	NA
	4/19/95	MW01 041995	210	69	3.7	3.7	12	NA	NA	NA	0.016	NA	NA
	7/13/95	MW01071395	110	30	4.7	8.2	20	NA	NA	NA	0.0048	NA	NA
	10/17/95	MW01 101795	90	29	3.7	10	23	NA	NA	NA	0.0088	NA	NA
	10/17/95 d	DW01 101795	110	32	4.3	12	26	NA	NA	NA	NA	NA	NA
MW-2	8/7/91	MW-2	NA(<50)	ND(<0.50)	ND(<0.50)	ND(<0 50)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	4/15/94	MW02-041494	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0.30)	ND(<0 50)	NA	NA	NA	0.022	NA	NA
	7/14/94	MW02-071494	ND(<50) *	ND(<0.30) *	0.73 *	ND(<0 30) *	0.71 *	NA	NA	NA	0.023	NA	NA
	10/14/94	MW02-101494	ND(<50) *	ND(<0.30) *	ND(<0.30) *	ND(<0 30) *	ND(<0 50) *	NA	NA	NA	0.021	NA	NA
	1/17/95	MW02-011795	ND(<50) *	ND(<0 30) *	ND(<0 30) *	ND(<0 30) *	ND(<0 50) *	NA	NA	NA	0.031	NA	NA
	4/19/95	MW02 041995	ND(<50) *	ND(<0 30) *	ND(<0 30) *	ND(<0 30) *	ND(<0 50) *	NA	NA	NA	ND(<0 003)	NA	NA
	7/13/95	MW02071395	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0 50)	NA	NA	NA	0.038	NA	NA
	10/17/95	MW02 101795	ND(<50)	ND(<0 30)	ND(<0.30)	ND(<0 30)	ND(<0.50)	NA	NA	NA	0.028	NA	NA
MW-3	8/7/91	MW-3	NA(<50)	ND(<0 50)	ND(<0 50)	ND(<0 50)	ND(<0 50)	ND(<5)	NA	NA	NA	NA	NA
	4/15/94	MW03-041594	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0 50)	NA	0.012	0.25	0.22	0.34	0.49
	4/15/94 d	DW01-041494	ND(<50)	ND(<0 30)	ND(<0.30)	ND(<0 30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	7/14/94	MW03-071494	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	0.50	NA	0.017	0.55	0.22	0.73	0.84
	7/14/94 d	DW01-071494	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	0.53	NA	NA	NA	NA	NA	NA
	10/14/94	MW03-101494	ND(<50)	ND(<0 30)	ND(<0.30)	ND(<0 30)	ND(<0 50)	NA	0.019	0.64	0.14	0.86	0.90 b
	10/14/94 d	DW01-101494	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	1/17/95	MW03-011795	ND(<50)	ND(<0.30)	ND(<0.30)	ND(<0.30)	ND(<0 50)	NA	ND(<0 004)	0.0088	ND(<0 003)	ND(<0 015)	0.022
	1/17/95 d	DW03-011795	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0.30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	4/19/95	MW03 041995	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0 50)	NA	0.0091	0.019	0.068	0.067	1.3
	4/19/95 d	DW03 041995	ND(<50)	ND(<0.30)	ND(<0.30)	ND(<0 30)	ND(<0.50)	NA	NA	NA	NA	NA	NA
	7/13/95	MW03071395	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0 50)	NA	ND(<0 004)	0.012	ND(<0 003)	ND(<0 015)	0.024
	7/13/95 d	DW01071395	ND(<50)	ND(<0 30)	ND(<0.30)	ND(<0.30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	10/17/95	MW03 101795	ND(<50)	ND(<0 30)	ND(<0.30)	ND(<0 30)	ND(<0 50)	NA	ND(<0.004)	ND(<0 007)	ND(<0 003)	ND(<0.015)	ND(<0 010)
Rinsate Analyses:													
	4/15/94	RS01-041594	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0.50)	NA	NA	NA	NA	NA	NA
	7/14/94	RS01-071494	ND(<50)	ND(<0 30)	0.33	ND(<0 30)	0.65	NA	NA	NA	NA	NA	NA
	10/14/94	RS01-101494	ND(<50)	ND(<0.30)	ND(<0.30)	ND(<0 30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	1/17/95	RS01-011795	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	4/19/95	RS01 041995	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	7/13/95	RS01071395	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	10/17/95	RS01 101795	ND(<50)	ND(<0 30)	ND(<0.30)	ND(<0 30)	ND(<0 50)	NA	NA	NA	NA	NA	NA

TABLE 1
GROUNDWATER ANALYTICAL DATA
PETROLEUM HYDROCARBONS FUEL ANALYSIS
(continued)

Joe Sio Chevrolet
914-916 San Pablo Avenue, *Albany, California*

Monitoring Well No.	Date Sampled	Sample No.	TPH Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	Total Oil and Grease (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Nickel (mg/L)	Zinc (mg/L)
	EPA Analytical Method:		8015m	602	602	602	602	9070	AA	AA	AA	AA	AA
Trip Blank Analyses:													
	4/15/94	TB01-041594	ND(<50)	ND(<0.30)	ND(<0.30)	ND(<0 30)	ND(<0.50)	NA	NA	NA	NA	NA	NA
	7/14/94	TB01-071494	ND(<50)	ND(<0 30)	ND(<0 30)	ND(<0 30)	ND(<0.50)	NA	NA	NA	NA	NA	NA
	10/14/94	TB01-101494	ND(<50)	ND(<0 30)	ND(<0.30)	ND(<0.30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	1/17/95	TB01-011795	ND(<50)	ND(<0.30)	ND(<0.30)	ND(<0 30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	7/13/95	TB01071395	ND(<50)	ND(<0 30)	ND(<0.30)	ND(<0.30)	ND(<0 50)	NA	NA	NA	NA	NA	NA
	10/17/95	TB01071395	ND(<50)	ND(<0 30)	ND(<0.30)	ND(<0 30)	ND(<0.50)	NA	NA	NA	NA	NA	NA
DRINKING WATER STANDARDS California Primary Maximum Contaminant Levels			-	1	150	700	1750	-	0 005	0.05	0 05	0.1	5

Results above detection limit are bolded for emphasis.

*	An external standard quantitation was used on this sample due to matrix interference
b	Analyte found in method blank
d	Duplicate sample
mg/L	Milligrams per liter (parts per million)
NA	Not analyzed
ND	Concentration below detection limit presented in parentheses
ug/L	Micrograms per liter (parts per billion)

TABLE 1a
GROUNDWATER ANALYTICAL DATA
CHLORINATED HYDROCARBONS ANALYSIS

Joe Sio Chevrolet
914-916 San Pablo Avenue, Albany, California

Monitoring Well No.	Date Sampled	Sample No.	Chloro-methane	Carbon Tetra-chloride	Trichloro-ethene	cis-1,2-Dichloro ethene	Tetrachloro-ethene
		EPA Analytical Method:	601	601	601	601	601
MW-2	1/17/95	MW02-011795	**0.94**	**0.98**	**0.56**	**0.51**	**100**
	4/19/95	MW02 041995	ND(<0 50)	**0.83**	ND(<0 50)	ND(<0 50)	**76**
	7/13/95	MW02071395	ND(<0.50)	**0.98**	ND(<0 50)	ND(<0 50)	**68**
	10/17/95	MW02 101795	ND(<1 0)	**1.1**	ND(<1.0)	ND(<1 0)	**60**
DRINKING WATER STANDARDS' California Primary Maximum Contaminant Levels			-	0.5	5	6	5

Results above detection limit are bolded for emphasis
All results presented in micrograms per liter (ug/L)
601 analytes not listed are all below method detection limits

TABLE 2
GROUNDWATER ELEVATION DATA

Joe Sio Chevrolet
914-916 San Pablo Avenue, Albany, California

Monitoring Well No.	Date Measured	Total Depth (ft-BTOC)	TOC Elevation (ft-MSL)	Depth to Water (ft-BTOC)	Water Elevation (ft-MSL)
MW-1	8/7/91	NM	42.61	10.49	32.12
	8/12/91	NM	42.61	10.37	32.24
	4/15/94	29.80	42.61	10.60	32.01
	7/14/94	29.70	42.61	10.55	32.06
	10/14/94	29.75	42.61	10.88	31.73
	1/17/95	29.75	42.61	9.97	32.64
	4/19/95	29.62	42.61	9.74	32.87
	7/13/95	29.79	42.61	10.31	32.30
	10/17/95	29.84	42.61	10.40	32.21
MW-2	8/7/91	NM	42.73	11.64	31.09
	8/12/91	NM	42.73	11.69	31.04
	4/15/94	26.88	42.73	10.16	32.57
	7/14/94	26.85	42.73	10.91	31.82
	10/14/94	26.88	42.73	12.10	30.63
	1/17/95	26.87	42.73	9.54	33.19
	4/19/95	26.71	42.73	7.99	34.74
	7/13/95	26.91	42.73	9.91	32.82
	10/17/95	26.96	42.73	11.38	31.35
MW-3	8/7/91	NM	39.44	8.94	30.50
	8/12/91	NM	39.44	8.94	30.50
	4/15/94	25.58	39.44	7.68	31.76
	7/14/94	25.62	39.44	8.40	31.04
	10/14/94	25.61	39.44	9.31	30.13
	1/17/95	25.79	39.44	5.44	34.00
	4/19/95	25.65	39.44	5.99	33.45
	7/13/95	25.85	39.44	7.38	32.06
	10/17/95	25.79	39.44	8.70	30.74

Water levels measured on 8/7/91 and 8/12/91 by Aqua Terra Technologies (ATT) of Walnut Creek, California.

TOC elevations obtained from survey data provided in the ATT Groundwater Monitoring Report dated 11/11/91.

ft-BTOC	Feet below top of casing
ft-MSL	Feet above mean sea level
NM	Not measured
TOC	Top of casing

APPENDIX A

Groundwater Sampling and Analysis Procedures

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APPENDIX A

Groundwater Sampling and Analysis Procedures

INTRODUCTION

The sampling and analysis procedures for water-quality monitoring programs are contained in this Appendix. These procedures ensure that consistent and reproducible sampling methods are used, proper analytical methods are applied, analytical results are accurate, precise, and complete, and the overall objectives of the monitoring program are achieved.

SAMPLE COLLECTION

Sample collection procedures include equipment cleaning, water-level and total well-depth measurements, and well purging and sampling.

Equipment Cleaning

Sample bottles, caps, and septa were precleaned and provided by a DHS-certified laboratory. All sampling containers were used only once and discarded after analysis was complete.

Before starting the sampling event, all equipment to be placed in the well or come in contact with groundwater was disassembled and cleaned thoroughly with detergent water, then steam cleaned with tap water, and rinsed with distilled water. Any parts that may absorb contaminants, such as plastic pump valves or bladders, were cleaned as described above or replaced.

During the sampling event all equipment used in the well was washed with detergent, steam-cleaned, and rinsed with distilled water before purging or sampling the next well. The rinsate water was contained for temporary storage in 55-gallon drums and disposal

will be arranged by the client. The 55-gallon drums were stored onsite and labeled by the field technician.

Quality Assurance Samples

A trip blank was analyzed to insure contamination did not result from travel exposure.

WATER-LEVEL, FLOATING-HYDROCARBON, AND TOTAL WELL-DEPTH MEASUREMENTS

Before purging and sampling, the depth to water, floating hydrocarbon thickness, and the well total depth were measured using an oil water interface probe and an electric sounder. The electric sounder, manufactured by Slope-Indicator, Inc., is a transistorized instrument that uses a reel-mounted, two conductor, coaxial cable that connects the control panel to the sensor. Cable markings are stamped at 1-foot intervals. An engineers rule was used to measure the depths to the closest 0.01 foot. The water level was measured by lowering the sensor into the monitoring well. A low current circuit is completed when the sensor contacts the water, which serves as a conductor. The current is amplified and fed across an indicator light and audible buzzer, signaling when water has been contacted. A sensitivity control compensates for very saline or conductive water. The oil water interface probe signals with a solid sound when it contacts phase-separated hydrocarbons. When the probe detects water, the sound changes to a beeping sound.

No phase-separated hydrocarbons were detected in any of the monitoring wells. When PSH is detected at greater than 1/32-inch in thickness, a sample is not collected.

All liquid measurements were recorded to the nearest 0.01 foot in the field logbook. The groundwater elevation at each monitoring well was calculated by subtracting the measured depth to water from the surveyed well-casing elevation. Well total depth was then measured by lowering the sensor to the bottom of the well. Well total depth, used to calculate purge volumes and to determine whether the well screen is partially obstructed by silt, was recorded to the nearest 0.01 foot in the field log book.

PHILIP ENVIRONMENTAL

WELL PURGING

Before sampling, standing water in the casing was purged from the monitoring wells using a PVC hand bailer. Samples were collected from the monitoring wells after a minimum of four casing volumes had been evacuated or the pH, electrical conductivity, and temperature had stabilized. In the case that the monitoring well was purged until dry, the well was allowed to recover to within 80% of its static water level and sampled.

The pH, electrical conductivity, and temperature meter were calibrated each day before beginning field activities. After every well volume of groundwater removed from the monitoring well, field measurements were taken. The data is presented on the water sample field data sheets. The calibration was checked once each day to verify meter performance. All field meter calibrations were recorded in the field log book.

Groundwater generated from well-purging operations were contained for temporary storage in 55-gallon drums. All drums were labeled and stored onsite. The sampler recorded on the drum label for each drum generated:

- drum content (i.e., groundwater)
- source (i.e., well identification code)
- date generated
- client contact
- project number
- name of sampler.

The purge water will be disposed of by the client.

WELL SAMPLING

A Teflon bailer was used for well sampling. Glass bottles of at least 40 milliliters volume and fitted with Teflon-lined septa were used in sampling for volatile organics. These bottles were filled completely to prevent air from remaining in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum is placed over the meniscus to eliminate air. After capping, the bottle was inverted and tapped to verify that it did not contain air bubbles. The sample containers for other parameters were filled, and capped.

SAMPLE HANDLING AND DOCUMENTATION

The following section specifies the procedures and documentation used during sample handling.

Sample Handling

All sample containers were labeled immediately following sample collection. Samples were kept cool with ice cubes until received by the laboratory. At the time of sampling, each sample was logged on a chain-of-custody record which accompanied the sample to the Western Environmental, Science, and Technology.

Sample Documentation

The following procedures were used during sampling and analysis to provide chain-of-custody control during sample handling from collection through storage. Sample documentation included:

- field log books to document sampling activities in the field
- labels to identify individual samples; and

- chain-of-custody record sheets for documenting possession and transfer of samples.

Field Log Book

In the field, the sampler recorded on the Water Sample Field Data Sheet for each sample collected:

- project number
- client name
- location
- name of sampler
- date and time
- pertinent well data (e.g., casing diameter, depth to water, well depth
- calculated and actual purge volumes
- purging equipment used
- sampling equipment used
- appearance of each sample (e.g., color, turbidity, sediment)
- results of field analyses (i.e., temperature, pH, electrical conductivity)
- general comments

The field logbooks were signed by the sampler.

PHILIP ENVIRONMENTAL

Labels

Sample labels contained:

- project number
- sample number (i.e., well designation)
- sampler's initials
- date and time of collection
- type of preservative used (if any)

Sampling and Analysis Chain-of-Custody Record

The Sampling and Analysis Chain-of-Custody record, initiated at the time of sampling, contains, but is not limited to, the well number, sample type, analytical request, date of sampling, and the name of the sampler. The record sheet was signed, timed, and dated by the sampler when transferring the samples. The number of custodians in the chain of possessions were kept to a minimum. A copy of the Sampling and Analysis Chain-of-Custody record is included in Appendix C.

APPENDIX B

Water Sample Field Data Sheets

FIELD REPORT
WATER LEVEL / FLOATING PRODUCT SURVEY

PROJECT NO.: 12104
LOCATION: 914 SAN PABLO AVE, ALBANY, CA
SAMPLER: W. BARKWELL
STATION NO.: 506 S10 CHEVROLET
DATE: 10/17/95
TIME AND DATE OF SYSTEM START-UP:

WELL ID	TOTAL DEPTH (Feet)	WELL DIAMETER (in)	DEPTH TO WATER (Feet)	DEPTH TO FLOATING PRODUCT (Feet)	FLOATING PRODUCT THICKNESS (Feet)	TIME	COMMENTS
MW01	29.84	2	10.40	N/A	N/A	0930	
MW02	26.96	2	11.38	N/A	N/A	0925	
MW03	25.79	2	8.70	N/A	N/A	0915	

WATER DATA SHEET

PROJECT NO.: 12104

SAMPLE ID.: MW01 - 101795

LOCATION: 914 San Pablo Ave Albany, CA

DATE: 10/17/95

STATION NO.: Joe Sro Chevrolet

WELL/SAMPLE

SAMPLER: W. Barnhill

POINT DESIGNATION: MW-1

[X] SAMPLING [ ] DEVELOPING [ ] BAILING FLOATING PRODUCT

Casing Diameter:
2 inch X
3 inch
4 inch
6 inch
other

Screened Int. (ft.): 10-30

Initial DTW (ft.): 10.40 @ 0930

Initial TD (ft.): 29.84

Water Column Height (ft.): 19.44

Casing Elev. (ft.):

TD (Actual) (ft.): 30

80 % Recovery (ft.): 14.29

Calc. Casing Vol. (gal.): 3.3
(2" = .17) (3" = .38) (4" = .66) (6" = 1.5)

Calc. Purge Vol. (gal.): 13.2

Final DTW (ft.): 13.96 @ 1025

Final TD (ft.): 29.86

Product Bailed (gal.): Ø

FIELD MEASUREMENTS

TIME	VOLUME (gal.)	pH (units)	TEMP. (degrees F)	E.C. (umhos/cm)	COLOR	DTW (if dry)
0950	4	6.23	65.2	1.35 X 10^3	BROWN/YELLOW	
0955	8	6.31	65.7	0.91 X 10^3	BROWN/YELLOW	
1000	10	6.40	65.9	9.40 X 10^2	BROWN/YELLOW	
1008	13	6.53	65.4	92.0 X 10^2	BROWN/YELLOW	

Odor? NONE

Actual Purge Vol. (gal.): 13 GALS

PURGE METHOD:
- ___ Bailer (Teflon)
- X Bailer (PVC)
- ___ Well Wizard
- ___ Dedicated Bailer
- ___ Other

SAMPLE METHOD:
- X Bailer (Teflon)
- ___ Bailer (PVC)
- ___ Dedicated Bailer
- ___ Other

REMARKS: SAMPLE MW01 101795 @ 1030 ON 10/17/95
DW01 101795 @ 1035 ON 10/17/95

WEATHER: OVERCAST ~ 65°F

WATER DATA SHEET

PROJECT NO.: 12104 SAMPLE ID.: MW02 - 101795 -

LOCATION: 914 San Pablo Ave Albany, CA DATE: 10/17/95

STATION NO.: Joe Sio Chevron WELL/SAMPLE

SAMPLER: W. Barnwell POINT DESIGNATION: MW-2

☒ SAMPLING ☐ DEVELOPING ☐ BAILING FLOATING PRODUCT

Casing Diameter:
2 inch X
3 inch
4 inch
6 inch
other

Casing Elev. (ft.):

TD (Actual) (ft.): 28

Screened Int. (ft.): 8-28

Initial DTW (ft.): 11.38 @ 0925

Initial TD (ft.): 26.96

Water Column Height (ft.): 15.58

80 % Recovery (ft.): 14.49

Calc. Casing Vol. (gal.): 2.65
(2" = .17) (3" = .38) (4" = .66) (6" = 1.5)

Calc. Purge Vol. (gal.): 10.6

Final DTW (ft.): 11.62 @ 1219

Final TD (ft.): 26.95

Product Bailed (gal.): Ø

FIELD MEASUREMENTS

TIME	VOLUME (gal.)	pH (units)	TEMP. (degrees F)	E.C. (umhos/cm)	COLOR	DTW (if dry)
1200	2	7.37	68.3	9.87×10^2	LT YELLOW/BROWN	
1203	5	7.29	67.0	9.55×10^2	LT YELLOW/BROWN	
1206	8	7.21	66.1	9.65×10^2	LT YELLOW/BROWN	
1210	11	7.30	66.2	9.81×10^2	LT YELLOW BROWN	

Odor? NONE

Actual Purge Vol. (gal.): 11 GALS

PURGE METHOD:
- ___ Bailer (Teflon)
- X Bailer (PVC)
- ___ Well Wizard
- ___ Dedicated Bailer
- ___ Other

SAMPLE METHOD:
- X Bailer (Teflon)
- ___ Bailer (PVC)
- ___ Dedicated Bailer
- ___ Other

REMARKS: SAMPLED MW02 101795 @ 1230 ON 10/17/95

WEATHER: SUNNY ~ 70°F

WATER DATA SHEET

PROJECT NO.: 12104 SAMPLE ID.: MW03-101795-

LOCATION: 914 SAN PABLO Ave ALBANY, CA DATE: 10/17/95

STATION NO.: JOE SO CHEVROLET WELL/SAMPLE

SAMPLER: W. BARRENTINE POINT DESIGNATION: MW-3

☒ SAMPLING ☐ DEVELOPING ☐ BAILING FLOATING PRODUCT

Casing Diameter:
2 inch X
3 inch ____
4 inch ____
6 inch ____
other ____

Casing Elev. (ft.): ____

TD (Actual) (ft.): 27

Screened Int. (ft.): ____

Initial DTW (ft.): 8.70 @ 0915

Initial TD (ft.): 25.79

Water Column Height (ft.): 17.09

80 % Recovery (ft.): 12.17

Calc. Casing Vol. (gal.): 2.9
(2" = .17) (3" = .38) (4" = .66) (6" = 1.5)

Calc. Purge Vol. (gal.): 11.6

Final DTW (ft.): 8.80 @ 1118

Final TD (ft.): 25.81

Product Bailed (gal.): Ø

FIELD MEASUREMENTS

TIME	VOLUME (gal.)	pH (units)	TEMP. (degrees F)	E.C. (umhos/cm)	COLOR	DTW (if dry)
1057	3	7.38	65.5	6.45×10^2	LIGHT YELLOW BROWN	
1102	6	7.21	66.2	6.39×10^2	LT YELLOW BROWN	
1104	9	7.37	69.2	6.62×10^2	LT YELLOW BROWN	
1109	12	7.33	68.7	6.49×10^2	LT YELLOW BROWN	

Odor? NONE

Actual Purge Vol. (gal.): 12 GALS

PURGE METHOD:
___ Bailer (Teflon)
X Bailer (PVC)
___ Well Wizard
___ Dedicated Bailer
___ Other ____

SAMPLE METHOD:
X Bailer (Teflon)
___ Bailer (PVC)
___ Dedicated Bailer
___ Other ____

REMARKS: SAMPLE MW03 101295 @ 1130 ON 101795
DISPOSABLE BAILER / FILTER USED FOR METALS ANALYSIS.

WEATHER: SUNNY ~ 71°F

APPENDIX C

Chain-of-Custody Records
and
Certified Analytical Data

WEST LABORATORY

Sample Log 13167
October 25, 1995

Daryl Lamb
Philip Environmental
5901 Cristie Street, Ste. 501
Emeryville, CA 94608

Subject : 6 water samples
Project Name : Joe Sio Chevrolet
Project Number : 12104
P.O. Number : 57797

Dear Mr. Lamb,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

WEST Laboratory is certified by the State of California (# 1346). If you have any questions regarding procedures or results, please call me at 916-753-9500.

Sincerely,

Joel L. Kiff

WEST LABORATORY

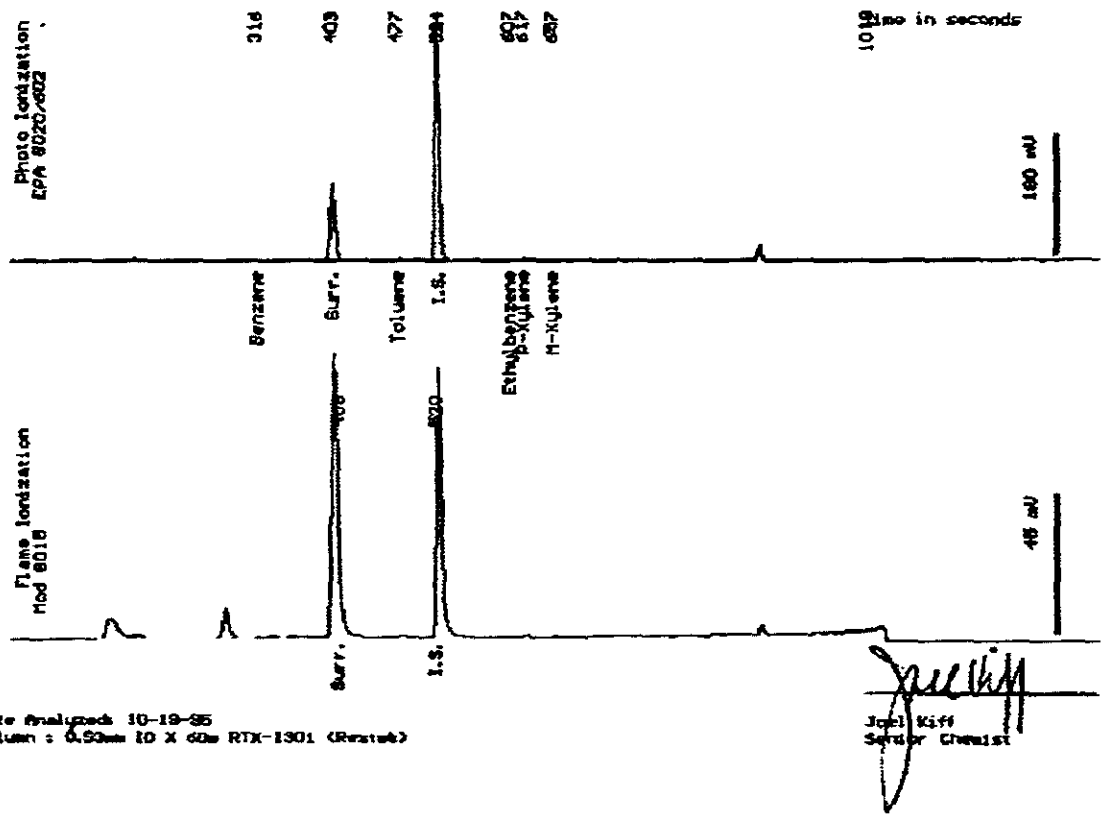
Sample Log 13167

13167-02

Sample: RS01 101795

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 10/17/95
Dilution : 1:1 QC Batch : 2131J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	<.30
Toluene	(.30)	<.30
Ethylbenzene	(.30)	<.30
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		99 %



Date Analyzed 10-19-95
Column : 0.53mm ID X 60m RTX-1301 (Restek)

Joel Kiff
Senior Chemist

IES LABORATORY

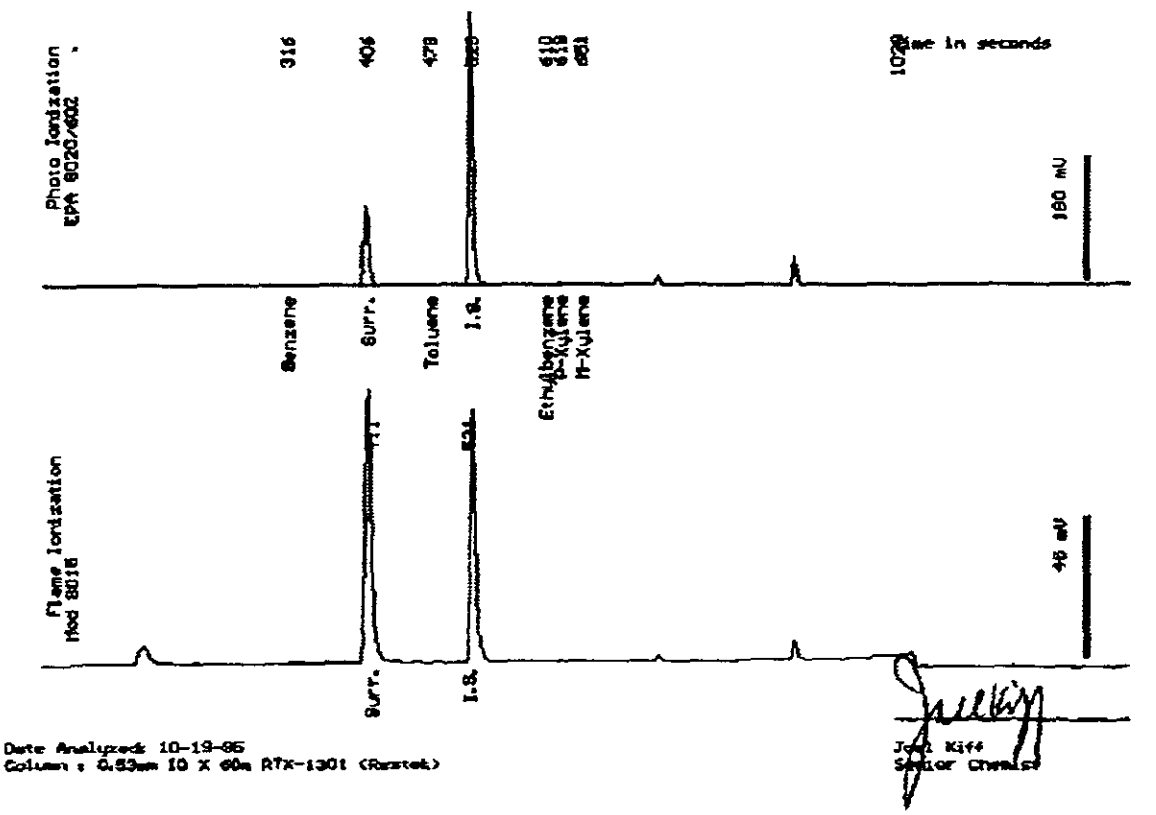
Sample Log 13167

13167-02

Sample: TB01 101795

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 10/17/95
Dilution : 1:1 QC Batch : 2131J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	<.30
Toluene	(.30)	<.30
Ethylbenzene	(.30)	<.30
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		99 %



Date Analyzed: 10-19-95
Column : 0.53mm ID X 60m RTX-1301 (Restek)

Jeff Kiff
Senior Chemist

IEST LABORATORY

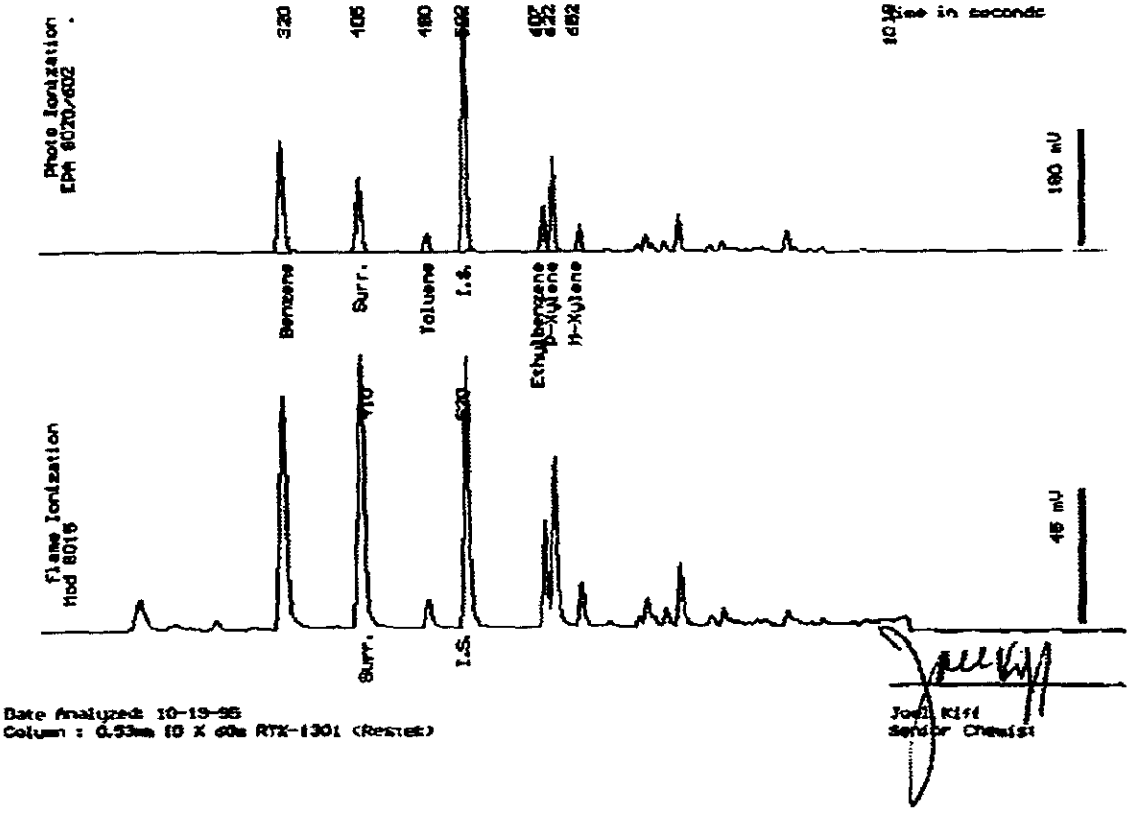
Sample Log 13167

13167-05

Sample: MW01 101795

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 10/17/91
Dilution : 1:1 QC Batch : 2131J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	29
Toluene	(.30)	3.7
Ethylbenzene	(.30)	10
Total Xylenes	(.50)	23
TPH as Gasoline	(50)	90
Surrogate Recovery		101 %



Date Analyzed: 10-19-95
Column : 0.53mm ID X 60m RTX-1301 (Restek)

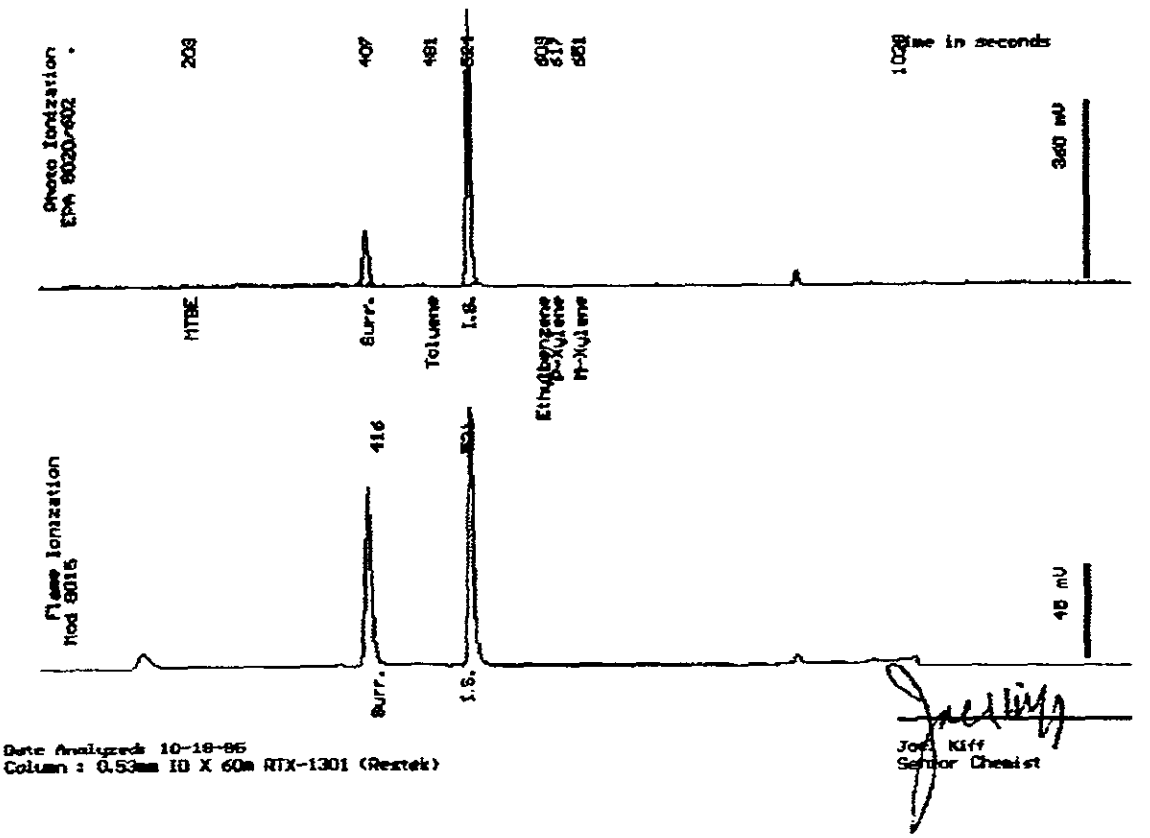
Joel Kiff
Senior Chemist

Sample: MW02 101795

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 10/17/95
Dilution : 1:1 QC Batch : 2131J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	<.30
Toluene	(.30)	<.30
Ethylbenzene	(.30)	<.30
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		99 * %

* External standardization was used due to matrix interference.



Date Analyzed: 10-18-95
Column : 0.53mm ID X 60m RTX-1301 (Restek)

Joel Kiff
Senior Chemist

IET LABORATORY

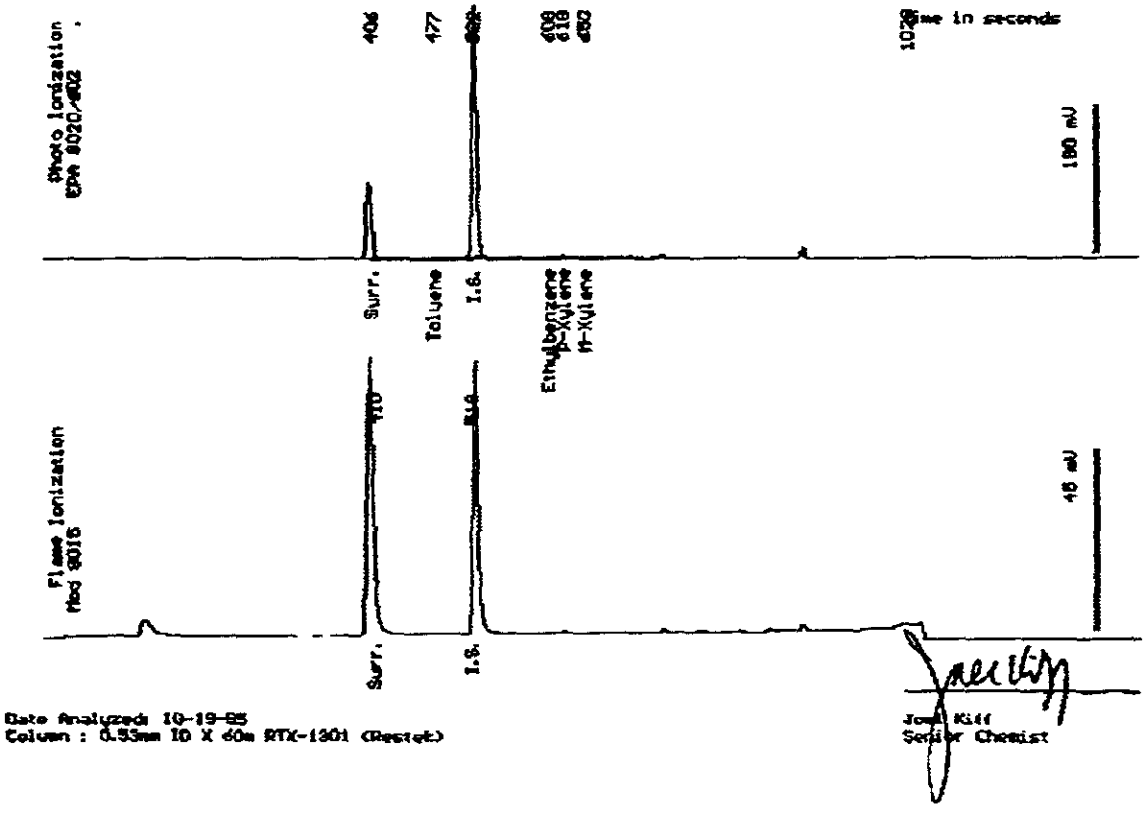
Sample Log 13167

13167-05

Sample: MW03 101795

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 10/17/95
Dilution : 1:1 QC Batch : 2131J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	<.30
Toluene	(.30)	<.30
Ethylbenzene	(.30)	<.30
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		98 %



Date Analyzed 10-19-95
Column : 0.53mm ID X 60m RTX-1301 (Restek)

Joel Kiff
Senior Chemist

WEST LABORATORY

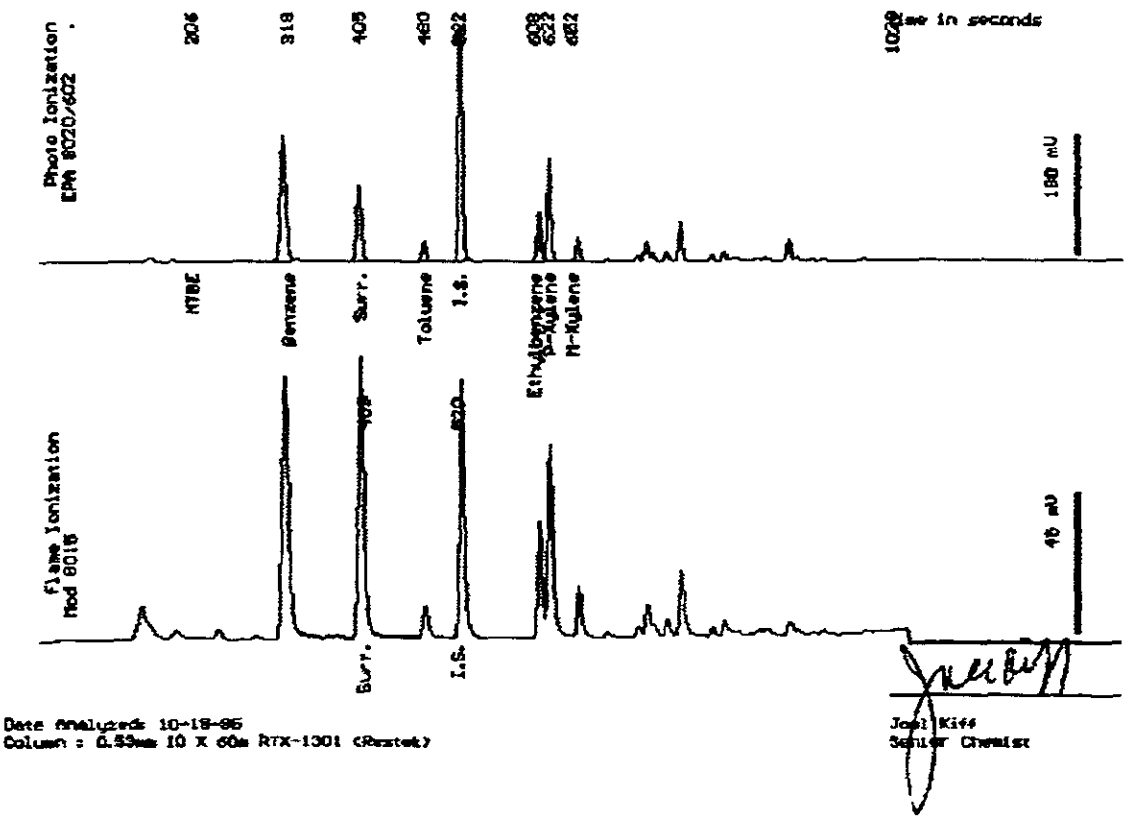
Sample Log 13167

13167-06

Sample: DW01 101795

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 10/17/95
Dilution : 1:1 **QC Batch : 2131J**
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	32
Toluene	(.30)	4.3
Ethylbenzene	(.30)	12
Total Xylenes	(.50)	26
TPH as Gasoline	(50)	110
Surrogate Recovery		99 %



Date Analyzed 10-18-95
Column : 0.53mm ID X 60m RTX-1301 (Restek)

Joel Kiff
Senior Chemist

WEST LABORATORY

October 20, 1995
Sample Log 13167

QC Report for EPA 602 & Modified EPA 8015

From : Joe Sio Chevrolet (Proj. # 12104)
Sample(s) Received : 10/18/95

Parameter	Matrix Spike % Recovery	Matrix Spike Duplicate % Recovery	RPD *
Benzene	99	96	3
Ethylbenzene	103	99	4
TPH as Gasoline	100	97	3

* RPD = Relative Percent Difference

Parameter	Method Blank
Benzene	<0.30 ug/L
Toluene	<0.30 ug/L
Ethylbenzene	<0.30 ug/L
Total Xylenes	<0.50 ug/L
TPH as Gasoline	<50 ug/L

Joel Kirr
Senior Chemist

WEST LABORATORY

Sample Log 13167
October 25, 1995

Volatile Halocarbons

Sample Name : **MW02 101795**

Project Name : Joe Sio Chevrolet
Project Number : 12104
Sample Date : 10/17/95
Date Analyzed : 10/24/95
Analysis Method : EPA 601

Date Received : 10/18/95
Dilution : 1:2
Sample Matrix : Water
Lab Number : 13167-04

Parameter	MRL	Measured Conc.	Units
Chloromethane	1.0	<1.0	ug/L
Vinyl Chloride	1.0	<1.0	ug/L
Bromomethane	1.0	<1.0	ug/L
Chloroethane	1.0	<1.0	ug/L
Trichlorofluoromethane	1.0	<1.0	ug/L
1,1-Dichloroethene	1.0	<1.0	ug/L
Dichloromethane	1.0	<1.0	ug/L
t-1,2-Dichloroethene	1.0	<1.0	ug/L
1,1-Dichloroethane	1.0	<1.0	ug/L
c-1,2-Dichloroethene	1.0	<1.0	ug/L
Chloroform	1.0	<1.0	ug/L
1,1,1-Trichloroethane	1.0	<1.0	ug/L
Carbon Tetrachloride	**1.0**	**1.1**	ug/L
1,2-Dichloroethane	1.0	<1.0	ug/L
Trichloroethene	1.0	<1.0	ug/L
1,2-Dichloropropane	1.0	<1.0	ug/L
Bromodichloromethane	1.0	<1.0	ug/L
c-1,3-Dichloropropene	1.0	<1.0	ug/L
t-1,3-Dichloropropene	1.0	<1.0	ug/L
1,1,2-trichloroethane	1.0	<1.0	ug/L
Tetrachloroethene	**1.0**	**60**	ug/L
Dibromochloromethane	1.0	<1.0	ug/L
Chlorobenzene	1.0	<1.0	ug/L
Bromoform	1.0	<1.0	ug/L
1,1,2,2-Tetrachloroethane	1.0	<1.0	ug/L
1,3-Dichlorobenzene	1.0	<1.0	ug/L
1,4-Dichlorobenzene	1.0	<1.0	ug/L
1,2-Dichlorobenzene	1.0	<1.0	ug/L
2-Chlorotoluene (Surr.)		106	% Recovery

MRL = Method Reporting Limit
Conc. = Concentration

Approved By : Joel L. Kiff

LABORATORY
1046 Olive Drive, Ste 2 Davis, CA 95616 (916)-753-9500

BATCH QC REPORT

Sample Log 13167
October 25, 1995

Project Name : Joe Sio Chevrolet
Project Number : 12104
Matrix : Water

Parameter	Analysis Method	Date Prep	Blank Conc.	Conc. Units	Spiked Sample	Un-Spiked Sample Conc.	MS Spiked Conc.	MS Meas. Conc.	MS % Recov.	MSD Spiked Conc.	MSD Meas. Conc.	MSD % Recov.	MS Recov. Limit	MS/MSD RPD	RPD Limit
Chloromethane	EPA 601	10/24/95	< 0.50	ug/L											
Vinyl Chloride	EPA 601	10/24/95	< 0.50	ug/L											
Bromomethane	EPA 601	10/24/95	< 0.50	ug/L											
Chloroethane	EPA 601	10/24/95	< 0.50	ug/L											
Trichlorofluoromethane	EPA 601	10/24/95	< 0.50	ug/L											
1,1-Dichloroethene	EPA 601	10/24/95	< 0.50	ug/L	13170-01	< 0.50	20	17.2	86.0	20	19.4	97.0	70-130	12.0	20
Dichloromethane	EPA 601	10/24/95	< 0.50	ug/L											
t-1,2-Dichloroethene	EPA 601	10/24/95	< 0.50	ug/L											
1,1-Dichloroethane	EPA 601	10/24/95	< 0.50	ug/L											
c-1,2-Dichloroethene	EPA 601	10/24/95	< 0.50	ug/L											
Chloroform	EPA 601	10/24/95	< 0.50	ug/L											
1,1,1-Trichloroethane	EPA 601	10/24/95	< 0.50	ug/L											
Carbon Tetrachloride	EPA 601	10/24/95	< 0.50	ug/L											
1,2-Dichloroethane	EPA 601	10/24/95	< 0.50	ug/L											
Trichloroethene	EPA 601	10/24/95	< 0.50	ug/L	13170-01	< 0.50	20	17.8	89.5	20	18.5	92.5	70-130	3.30	20
1,2-Dichloropropane	EPA 601	10/24/95	< 0.50	ug/L											
Bromodichloromethane	EPA 601	10/24/95	< 0.50	ug/L											
c-1,3-Dichloropropene	EPA 601	10/24/95	< 0.50	ug/L											
t-1,3-Dichloropropene	EPA 601	10/24/95	< 0.50	ug/L											
1,1,2-trichloroethane	EPA 601	10/24/95	< 0.50	ug/L											
Tetrachloroethene	EPA 601	10/24/95	< 0.50	ug/L											
Dibromochloromethane	EPA 601	10/24/95	< 0.50	ug/L											
Chlorobenzene	EPA 601	10/24/95	< 0.50	ug/L	13170-01	< 0.50	20	18.5	92.5	20	18.0	90.0	70-130	2.74	20
Bromoform	EPA 601	10/24/95	< 0.50	ug/L											
1,1,2,2-Tetrachloroethane	EPA 601	10/24/95	< 0.50	ug/L											
2-Chlorotoluene (Surr.)	EPA 601	10/24/95	110	%											
1,3-Dichlorobenzene	EPA 601	10/24/95	< 0.50	ug/L											
1,4-Dichlorobenzene	EPA 601	10/24/95	< 0.50	ug/L											
1,2-Dichlorobenzene	EPA 601	10/24/95	< 0.50	ug/L											

Conc. = Concentration

Approved By : Joel L. Kl

WEST LABORATORY

October 26, 1995
Sample Log 13167

From : Joe Sio Chevrolet (Project # 12104)
Date Sampled : 10/17/95
Matrix : Water

Date Received : 10/18/95
Units : (mg/L)

Total Lead by GFAA by SW-846 Method 7421

WEST ID	Sample ID	Result	MRL	Date Digested	Date Analyzed
13167-03	MW01 101795	0.0088	0.003	10/23/95	10/25/95
13167-04	MW02 101795	0.028	0.003	10/23/95	10/25/95

MRL = Method Reporting Limit

Michelle L. Anderson
Inorganics Supervisor

WEST LABORATORY

October 26, 1995

Metals QC Report for Sample Log 13167

From : Joe Sio Chevrolet (Project # 12104)
Matrix : Water
Units : (mg/L)
Sample Spiked for MS/MSD : 13167-05

Method Blank

Analyte	Result	MRL	EPA Method	Date Digested	Date Analyzed
Lead (Pb)	<0.003	0.003	7421	10/23/95	10/25/95

MRL = Method Reporting Limit

Laboratory Control Sample (LCS)

Analyte	% Recovery	EPA Method	Date Digested	Date Analyzed
Lead (Pb)	101	7421	10/23/95	10/25/95

LCS Limits are 85 - 115%.

Matrix Spikes

Analyte	MS % Recov	MSD % Recov	RPD	EPA Method	Date Digested	Date Analyzed
Lead (Pb)	80	85	6	7421	10/23/95	10/25/95

MS = Matrix Spike MSD = Matrix Spike Duplicate RPD = Relative Percent Difference
Spike Recovery Limits for Matrix Spikes are 75 - 125%. The RPD Limits are ± 20%.

Michelle L. Anderson
Inorganics Supervisor

WEST LABORATORY

October 26, 1995
Sample Log 13167-05

Sample : **MW03 101795**
From : Joe Sio Chevrolet (Project # 12104)
Matrix : Water

Date Sampled : 10/17/95
Date Received : 10/18/95
Units : (mg/L)

Dissolved Metals Analyses by ICP and GFAA by SW-846
5 LUFT :"Waste Oil" Metals

Analyte	Result	MRL	EPA Method	Date Digested	Date Analyzed
Cadmium (Cd)	<0.004	0.004	6010	10/23/95	10/25/95
Chromium (Cr)	<0.007	0.007	6010	10/23/95	10/25/95
Lead (Pb)	<0.003	0.003	7421	10/23/95	10/25/95
Nickel (Ni)	<0.015	0.015	6010	10/23/95	10/25/95
Zinc (Zn)	<0.010	0.010	6010	10/23/95	10/25/95

MRL = Method Reporting Limit

Michelle L. Anderson
Inorganics Supervisor

October 26, 1995

Metals QC Report for Sample Log 13167

From : Joe Sio Chevrolet (Project # 12104)
Matrix : Water

Units : (mg/L)

Method Blank

Analyte	Result	MRL	EPA Method	Date Digested	Date Analyzed
Cadmium (Cd)	<0.004	0.004	6010	10/23/95	10/25/95
Chromium (Cr)	<0.007	0.007	6010	10/23/95	10/25/95
Lead (Pb)	<0.003	0.003	7421	10/23/95	10/25/95
Nickel (Ni)	<0.015	0.015	6010	10/23/95	10/25/95
Zinc (Zn)	<0.010	0.010	6010	10/23/95	10/25/95

MRL = Method Reporting Limit

Laboratory Control Sample (LCS)

Analyte	% Recovery	EPA Method	Date Digested	Date Analyzed
Cadmium (Cd)	110	6010	10/23/95	10/25/95
Chromium (Cr)	110	6010	10/23/95	10/25/95
Lead (Pb)	101	7421	10/23/95	10/25/95
Nickel (Ni)	103	6010	10/23/95	10/25/95
Zinc (Zn)	109	6010	10/23/95	10/25/95

LCS Limits are 85 - 115%.

Michelle L. Anderson
Inorganics Supervisor

IEG LABORATORY

October 26, 1995

Metals QC Report for Sample Log 13167 (cont'd)

From : Joe Sio Chevrolet (Project # 12104)
Sample Spiked for MS/MSD : 13167-05 (ICP, GFAA)

Matrix Spikes

Analyte	MS % Recov	MSD % Recov	RPD	EPA Method	Date Digested	Date Analyzed
Cadmium (Cd)	116	112	4	6010	10/23/95	10/25/95
Chromium (Cr)	97	95	2	6010	10/23/95	10/25/95
Lead (Pb)	80	85	6	7421	10/23/95	10/25/95
Nickel (Ni)	95	92	3	6010	10/23/95	10/25/95
Zinc (Zn)	103	99	4	6010	10/23/95	10/25/95

MS = Matrix Spike MSD = Matrix Spike Duplicate RPD = Relative Percent Difference
Spike Recovery Limits for Matrix Spikes are 75 - 125%. RPD Limits are ± 20%.

Michelle L. Anderson
Inorganics Supervisor

WEST
Western Environmental Science & Technology

1046 Olive Drive, Suite 3
Davis, CA 95616

916-753-9500
FAX #: 916-753-6091
LAB#: 916-757-4650

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: DALE TIGHT

Phone #: 510-420-7910

Company/Address: PHILIP ENVIRONMENTAL 2101 CRYSTAL AVE STE 501 EMERYVILLE, CA

FAX #: 510-658-7990

Project Number: 12164

P.O.#: 57797 ~~55691~~

Project Name: 3BC SID CHEVROLET

Project Location: 914 SAN PABLO AVE ALBANY, CA

Sampler Signature: W Tidwell

Sample ID	Sampling DATE	Sampling TIME	Container VOA	Container SLEEVE	Container 1L GLASS	Container 1L PLASTIC	Method Preserved HCl	Method Preserved HNO3	Method Preserved ICE	Method Preserved NONE	Matrix WATER	Matrix SOIL
BSD1 101795	101795	0910	X				X		X		X	
TB01 101795		1745	X				X		X		X	
MW01 101795		1030	X			X	X	X	X		X	
MW02 101795		1230	X			X	X	X	X		X	
MW03 101795		1130	X			X	X	X	X		X	
DW01 101795		1035	X				X		X		X	

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/8015)	TPH as Diesel/Oil (8015)	Total Oil & Grease (5520 B/E,F)	Total Oil & Grease IR (5520 B/E,F,C)	96 - Hour Fish Bioassay	EPA 601/8010	EPA 602/8020	EPA 615/8150	EPA 608/8080 - Pesticides	EPA 608/8080 - PCBs	EPA 624/8240	EPA 625/8270	ORGANIC LEAD	Reactivity, Corrosivity, Ignitibility	CAM - 17 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	Cd, Cr, Pb, Zn, Ni	Total Pb	W.E.T. (_)	TOTAL (_)
	X																				
	X																				
	X																		X		
	X					X												X	X		
	X																	X	X		
	X																				

TAT

RUSH SERVICE (12 hr) or (24 hr)	EXPEDITED SERVICE (48 hr) or (1 wk)	STANDARD SERVICE (2wk)
	X	X
	X	X
	X	X
	X	X
	X	X

Relinquished by:	Date	Time	Received by:	Date	Time
W Tidwell	10/17/95	1112	Sid Padernos	10/18/95	1111
Relinquished by: Sid Padernos	10/18/95	1557	Received by:		
Relinquished by	10/18/95	1600	Received by Laboratory:		

Remarks:
MW03 101795 WAS FIELD FILTERED
PLEASE RUN SAMPLE FOR TOTAL METALS 10/19/95 1600
MB

Bill To: