PHILIP
ENVIRONMENTAL

August 23, 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: Third Quarter 1995 (Addendum)**

Dear Ms. Connors:

Ms. Juliet Shin of the Alameda County Department of Environmental Health (ACDEH) alerted us today of an error in the Appendix B of the above referenced report. You may have noticed that the Water Data Sheets for MW-1 and MW-3 were missing from that appendix. We believe this occurred due to an error during reproduction. We are, therefore, enclosing a complete copy of the Appendix B, comprising of the cover sheet, the Field Report sheet, and all three Water Data Sheets.

We apologize for any inconvenience this inadvertent omission may have caused.

Sincerely,

PHILIP ENVIRONMENTAL SERVICES CORPORATION

Steven B. Wasson
Administrative Support

cc: Juliet Shin (ACDEH)

Enclosures

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PHILIP ENVIRONMENTAL

LETTER OF TRANSMITTAL

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

Date: August 4, 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, Third Quarter 1995"

Comments:

Dave Tight/aqt

By: David C. Tight

cc: Ms. Florence Ann Connors

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QUARTERLY GROUNDWATER MONITORING REPORT
Third Quarter 1995

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

August 4, 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

PHILIP ENVIRONMENTAL

August 4, 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**
Third 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 July 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 third quarter 1995 monitoring event was conducted on July 13, 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 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 July 13, 1995 ranged from 32.06 to 32.82 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 April data is to the south with an approximate hydraulic gradient of 0.005 feet/foot. This flow direction is inconsistent with the flow directions seen during the past three monitoring events (to the west during fourth quarter 1994, to the northeast during first quarter 1995, and to the southeast during the second quarter 1995). The anticipated groundwater flow direction, based on topography and proximity to the San Francisco Bay, is to the west. It is possible that the flow reversals during the first three quarters of 1995 are manifestations of an unusually wet winter.

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

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collected from well MW-1, including 110 micrograms per liter (µg/L) of TPHg and 30 µg/L of benzene. These levels are the lowest levels recorded for those analytes in well MW-1 since monitoring resumed at the site in April 1994.

The groundwater sample collected from well MW-3 contained trace levels of chromium and zinc that are below their respective California primary maximum contaminant level (MCL), as shown in Table 1. No detectable levels of lead were found in the sample from MW-3. Trace concentrations of lead were detected in the groundwater samples from both MW-1 and MW-2. Both lead levels are below the 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 68 µg/L. In addition, levels of carbon tetrachloride were found slightly above the MCL of 5 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 my 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 October 1995. 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.

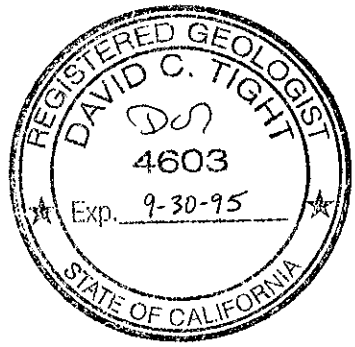
Sincerely,

PHILIP ENVIRONMENTAL SERVICES CORPORATION

Daryl A. Lamb/KBR

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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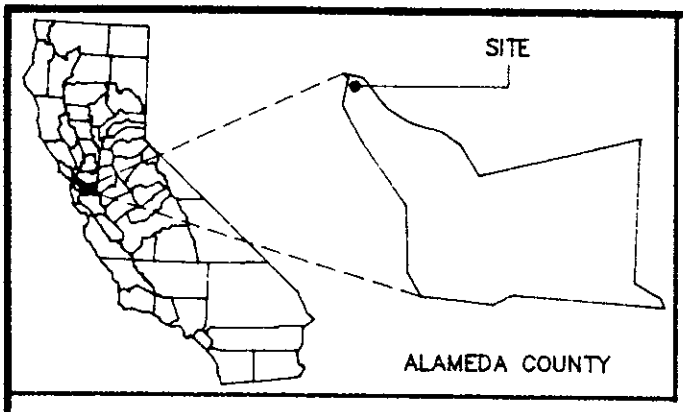
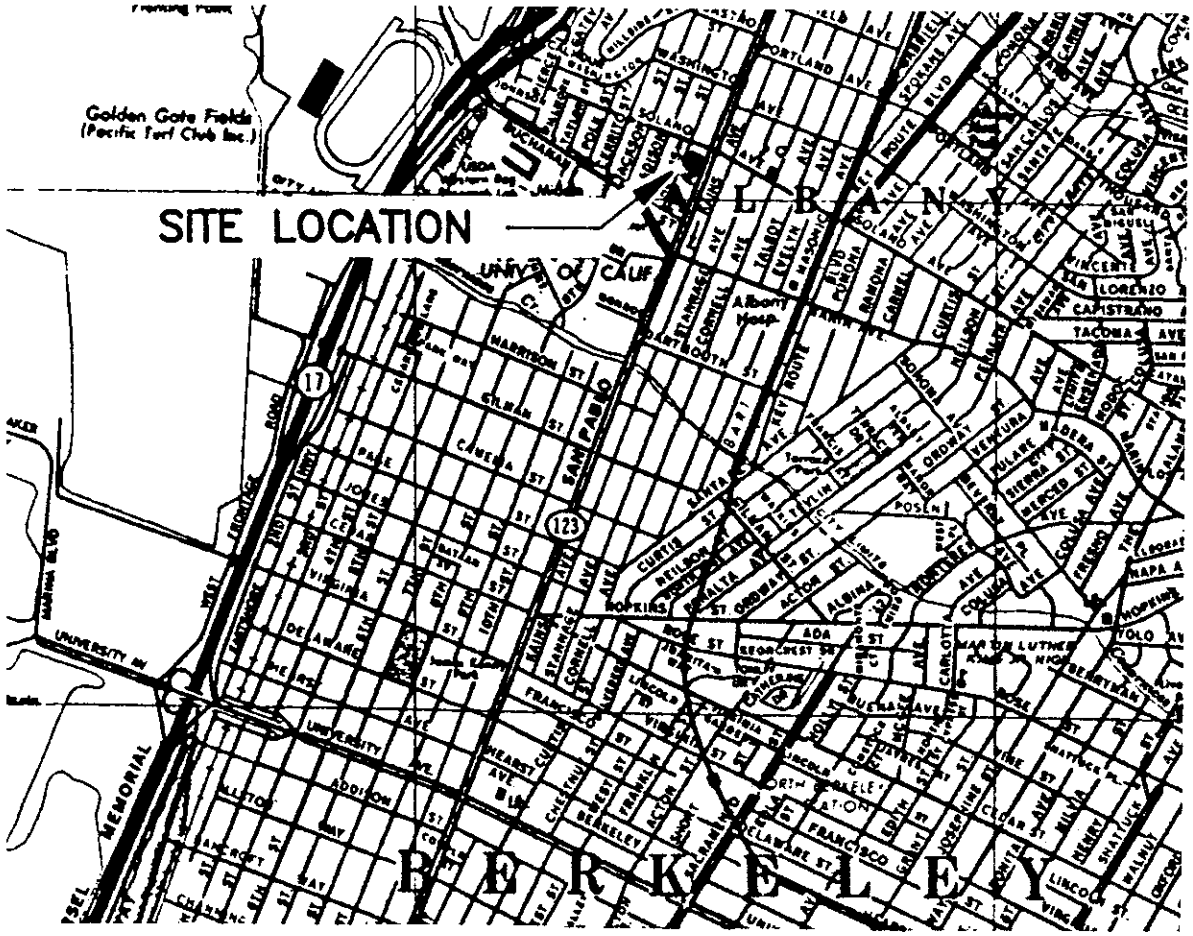
FIGURES 1 - 3





SITE LOCATION MAP

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

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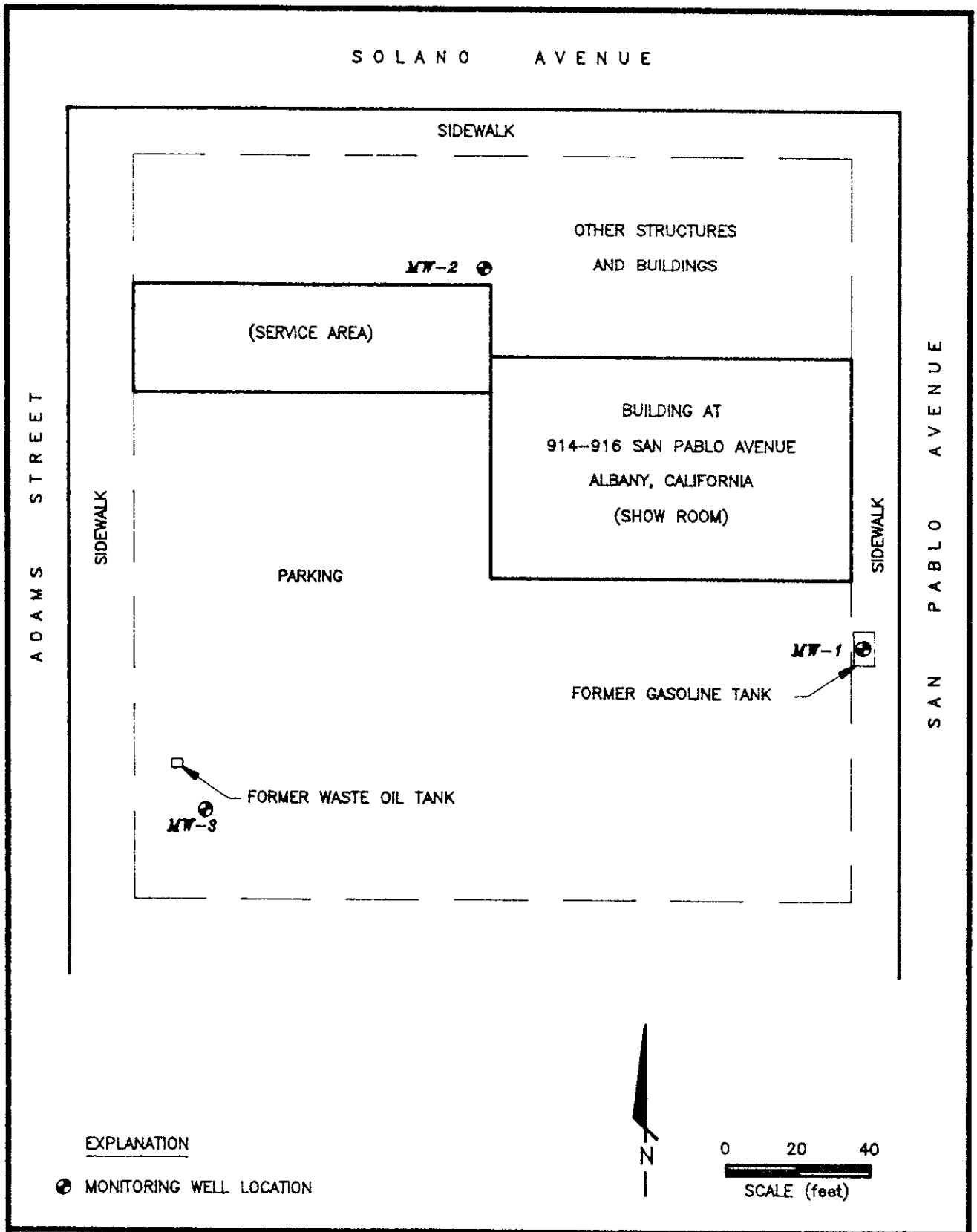
Figure 1	
Project No. 12104	
Drawn By SBW	Date 5/12/95
Reviewed By :	Date : 7/28/95
Drawing No. ASI00109	



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SITE PLAN

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

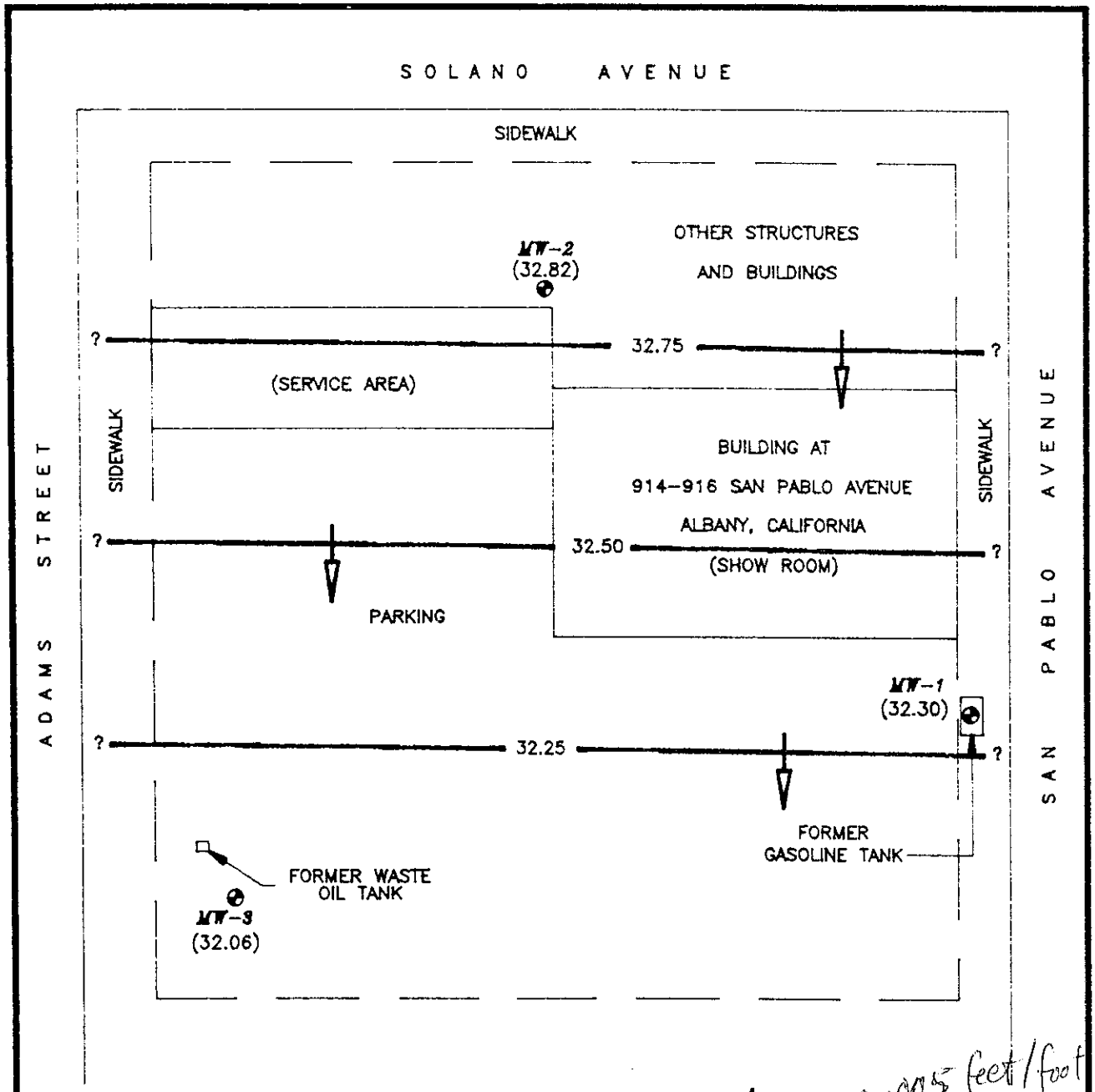
Figure 2

Project No. 12104

Drawn By SBW | Date 5/12/95

Reviewed By : QAC | Date : 7/29/95

Drawing No. ASI00102



0.005 feet/foot

EXPLANATION

- ◕ MONITORING WELL LOCATION
- (32.30) GROUNDWATER ELEVATION (FT-MSL) MEASURED ON: JULY 13, 1995
- 34.00 GROUNDWATER ELEVATION CONTOUR (FT-MSL) CONTOUR INTERVAL = 0.25'
- (FT-MSL) FEET ABOVE MEAN SEA LEVEL
- APPROXIMATE GROUNDWATER FLOW DIRECTION

N

0 20 40

SCALE (feet)

THIRD QUARTER 1995

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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 7/27/95

Reviewed By : CMC | Date : 7/28/95 | Drawing No. ASI00110

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	87	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	0.0096	NA	NA
	4/19/95	MW01 041995	210	69	3.7	3.7	12	NA	NA	NA	0.018	NA	NA
	7/13/95	MW01071395	110	30	4.7	8.2	20	NA	NA	NA	0.0048	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
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
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

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
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	0.58	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
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

← Contaminant levels have gone down due to change in gradient?

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
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
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

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

PHILIP ENVIRONMENTAL

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.

PHILIP ENVIRONMENTAL

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. Blackwell

STATION NO.: Joe Sid Chevrolet DATE: 9/15/95 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	29.79	2	10.31	N/A	N/A	0930	
MW02	26.91	2	9.91	N/A	N/A	0940	
MW03	25.85	2	7.58	N/A	N/A	0950	

WATER DATA SHEET

PROJECT NO.: 12104 SAMPLE ID.: MW02 071395

LOCATION: 914 San Pablo Ave, Albany CA DATE: 7.13.95

STATION NO.: Tos Sio Chevrolet WELL/SAMPLE

SAMPLER: W. Barnhill 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.): 9.91 @ 0940

Initial TD (ft.): 26.91

Water Column Height (ft.): 17.0

80 % Recovery (ft.): 13.31

Calc. Casing Vol. (gal.): 2.9
(2" = .17) (3" = .38) (4" = .65) (6" = 1.5)

Calc. Purge Vol. (gal.): 12

Final DTW (ft.): 10.99 @ 1251

Final TD (ft.): 26.89

Product Bailed (gal.): 0

FIELD MEASUREMENTS

TIME	VOLUME (gal.)	pH (units)	TEMP. (degrees F)	E.C. (umhos/cm)	COLOR	DTW (if dry)
1240	3	7.58	72.3	1.12×10^3	BROWN/GREY	
1243	6	7.46	70.4	1.05×10^3	BRN	
1247	9	7.42	71.5	1.07×10^3	BRN	
1250	12	7.33	69.2	1.07×10^3	BRN	

Odor? NONE

Actual Purge Vol. (gal.): 12

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

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

REMARKS: MW02 071395 SAMPLED @ 1300 ON 7/13/95

WEATHER: SUNNY FAIR 70'F

WATER DATA SHEET

PROJECT NO.: 12104
SAMPLE ID.: MW-03-071395
LOCATION: 914 San Pablo Ave Albany, CA
DATE: 7-13-95
STATION NO.: The Sid Chevrolet
WELL/SAMPLE
SAMPLER: Barkwill
POINT DESIGNATION: MW-3

☒ SAMPLING ☐ DEVELOPING ☐ BAILING FLOATING PRODUCT

Casing Diameter:
2 inch ____
3 inch ____
4 inch ____
6 inch ____
other ____
Casing Elev. (ft.): ____
TD (Actual) (ft.): 27

Screened Int. (ft.): 7-27
Initial DTW (ft.): 7.38 @ 0950
Initial TD (ft.): 25.85
Water Column Height (ft.): 18.47
80 % Recovery (ft.): 11.07

Calc. Casing Vol. (gal.): 3.14
(2" = .17) (3" = .38) (4" = .66) (5" = 1.5)
Calc. Purge Vol. (gal.): 12
Final DTW (ft.): 7.49 @ 1029
Final TD (ft.): 25.85
Product Bailed (gal.): 0

FIELD MEASUREMENTS

TIME	VOLUME (gal.)	pH (units)	TEMP. (degrees F)	E.C. (umhos/cm)	COLOR	DTW (if dry)
1010	3	6.90	69.2	9.69×10^2	LT BROWN	
1015	6	6.96	67.7	6.29×10^2	LT BROWN	
1019	9	7.02	66.2	6.31×10^2	LT BROWN	
1028	12	7.15	65.6	6.28×10^2	LT BROWN	

Odor? NONE

Actual Purge Vol. (gal.): 12

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

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

REMARKS: MW03 071395 SAMPLED @ 1130 ON 7/13/95
DW01 071395 SAMPLED @ 1115 ON 7/13/95
Disposable Bailer / Filter used for metals analysis.

WEATHER: SUNNY FAIR 70°F

PHILIP ENVIRONMENTAL

Fax Cover Sheet

Philip Environmental Services Corporation
5901 Christie Avenue, Suite 501, Emeryville, CA 94608

To: Ms. Juliet Shin
Company: Alameda County Department of Environmental Health
Phone: (510) 567-6763
Fax: (510) 337-9335

From: Steven Wasson
Company: **Philip Environmental**
Phone: (510) 420-7910
Fax: (510) 658-7990

Date: August 23, 1995
Pages including cover: 3

Comments:

Dear Ms. Shin,

Thank you for alerting us to the missing material from our Quarterly Groundwater Monitoring Report: Third Quarter 1995 for 914-916 San Pablo Avenue, Albany, California, dated August 4, 1995. We believe the two Water Data Sheets missing from Appendix B were left out due to an error during reproduction. Please find attached the two missing Water Data Sheets and accept our apologies for any inconvenience this may have caused. We will be sending a complete Appendix B to you shortly.

Steven Wasson
Administrative Support

WATER DATA SHEET

PROJECT NO.: 12104
SAMPLE ID.: MW01-071395
LOCATION: 914 San Pablo Ave, Albany
DATE: 7.13.95
STATION NO.: De Sio Chevr.
WELL/SAMPLE
SAMPLER: W. Barkwill
POINT DESIGNATION: MW-1

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

Casing Diameter:
2 inch X
3 inch ___
4 inch ___
6 inch ___
other ___
Casing Elev. (ft.): ___
TD (Actual) (ft.): 30

Screened Int. (ft.): 10-30
Initial DTW (ft.): 10.31 @0930
Initial TD (ft.): 29.79
Water Column Height (ft.): 19.48
80 % Recovery (ft.): 14.21

Calc. Casing Vol. (gal.): 3.31
(2" = .17) (3" = .38) (4" = .66) (6" = 1.5)
Calc. Purge Vol. (gal.): 13
Final DTW (ft.): 14.00 @1215
Final TD (ft.): 29.79
Product Bailed (gal.): 0

FIELD MEASUREMENTS

TIME	VOLUME (gal.)	pH (units)	TEMP. (degrees F)	E.C. (umhos/cm)	COLOR	DTW (if dry)
1155	3	7.21	76.0	1.27×10^3	Brown/Turbid	
1159	6	7.10	73.0	1.17×10^3	Brn	
1202	9	7.25	72.0	1.09×10^3	Brn	
1204	13	7.13	71.2	1.11×10^3	Brn	

Odor? Slight Rubber

Actual Purge Vol. (gal.): 13

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

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

REMARKS: MW01-071395 Sampled @ 1220 on 7/13/95

WEATHER: Sunny Clear 70°F

WATER DATA SHEET

PROJECT NO.: 12104 SAMPLE ID.: MW-03-071395

LOCATION: 914 San Pablo Ave Albany, CA DATE: 7.13.95

STATION NO.: Tom Sun Chevrolet WELL/SAMPLE

SAMPLER: Barkwill POINT DESIGNATION: MW-3

☒ SAMPLING ☐ DEVELOPING ☐ BAILING FLOATING PRODUCT

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

Casing Elev. (ft.): ____

TD (Actual) (ft.): 27

Screened Int. (ft.): 7-27

Initial DTW (ft.): 7.38 @ 0950

Initial TD (ft.): 25.85

Water Column Height (ft.): 18.47

80 % Recovery (ft.): 11.07

Calc. Casing Vol. (gal.): 3.14
(2" = .17) (3" = .38) (4" = .66) (6" = 1.5)

Calc. Purge Vol. (gal.): 12

Final DTW (ft.): 7.49 @ 1029

Final TD (ft.): 25.85

Product Bailed (gal.): 0

FIELD MEASUREMENTS

TIME	VOLUME (gal.)	pH (units)	TEMP. (degrees F)	E.C. (umhos/cm)	COLOR	DTW (ft dry)
1010	3	6.90	69.2	9.69×10^2	LT BROWN	
1013	6	6.96	67.7	6.29×10^2	LT BROWN	
1019	9	7.02	66.2	6.31×10^2	LT BROWN	
1028	12	7.15	65.6	6.28×10^2	LT BROWN	

Odor? None

Actual Purge Vol. (gal.): 12

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

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

REMARKS: MW03 071395 SAMPLED @ 1130 ON 7/13/95
DW01 071395 SAMPLED @ 1115 ON 7/13/95
Disposable Bailer / Filter used for metals analysis.

WEATHER: Sunny Fair 70°F

APPENDIX C

Chain-of-Custody Records
and
Certified Analytical Data

WEST LABORATORY

July 21, 1995
Sample Log 12479

David Tight
Philip Environmental
5901 Cristie Street, Ste. 501
Emeryville, CA 94608

Subject: Analytical Results for 6 Water Samples
Identified as: Joe Sio Chevrolet (Proj. # 12104)
Received: 07/14/95
Purchase Order: 55691

Dear Mr. Tight:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on July 21, 1995 and describes procedures used to analyze the samples.

Sample(s) were analyzed using the following method(s):

"BTEX" (EPA Method 602/Purge-and-Trap)
"TPH as Gasoline" (Modified EPA Method 8015/Purge-and-Trap)
"Halogenated Solvents" (EPA Method 601)
"Metals by Atomic Absorption/ICAP" (EPA Methods 7000/6010/200.7)
"Total Lead" (EPA 7421)

Please refer to the following table(s) for summarized analytical results and contact us at 916-753-9500 if you have questions regarding procedures or results. The chain-of-custody document is enclosed.

Approved by:

Joel Kiff
Senior Chemist

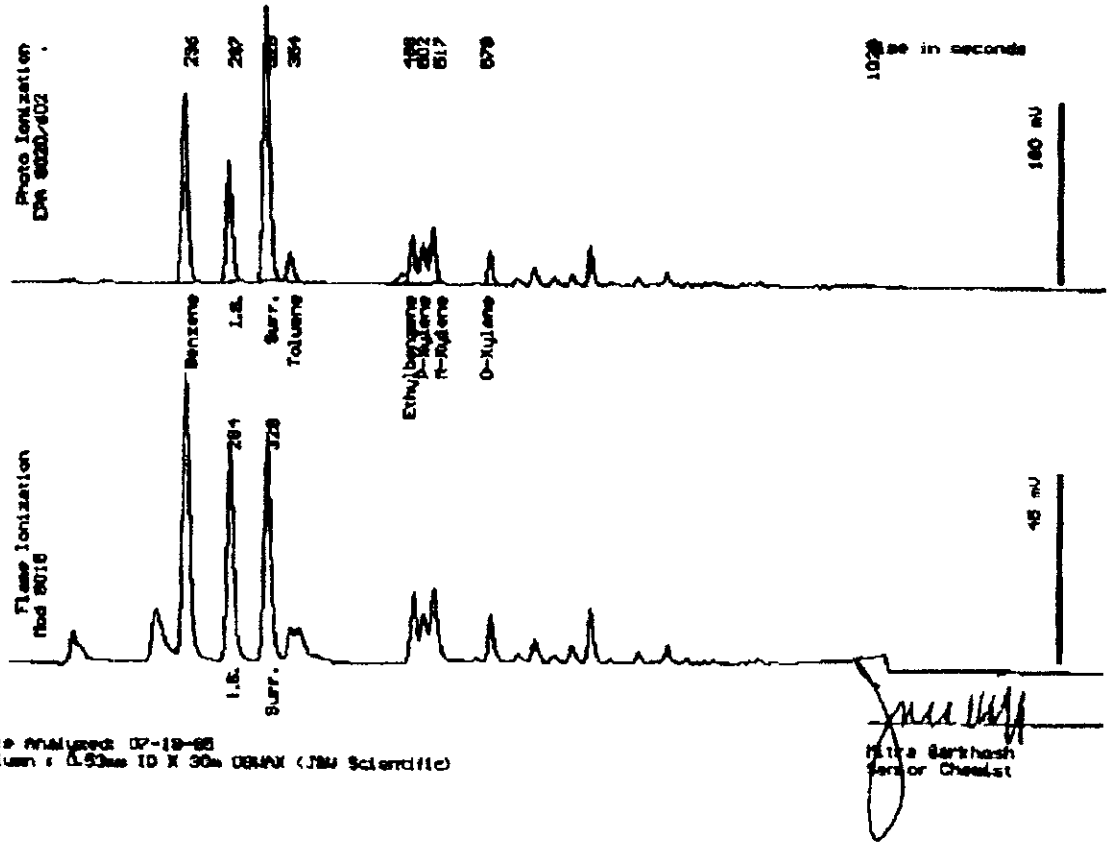
WEST LABORATORY

Sample Log 12479
12479-03

Sample: MW01071395

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 07/13/95
Dilution : 1:1 QC Batch : 2124M
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	30
Toluene	(.30)	4.7
Ethylbenzene	(.30)	8.2
Total Xylenes	(.50)	20
TPH as Gasoline	(50)	110
Surrogate Recovery		96 %



Date Analyzed: 07-19-95
Column : 0.53mm ID X 30m DB624 (J&W Scientific)

Mike Berkhash
Senior Chemist

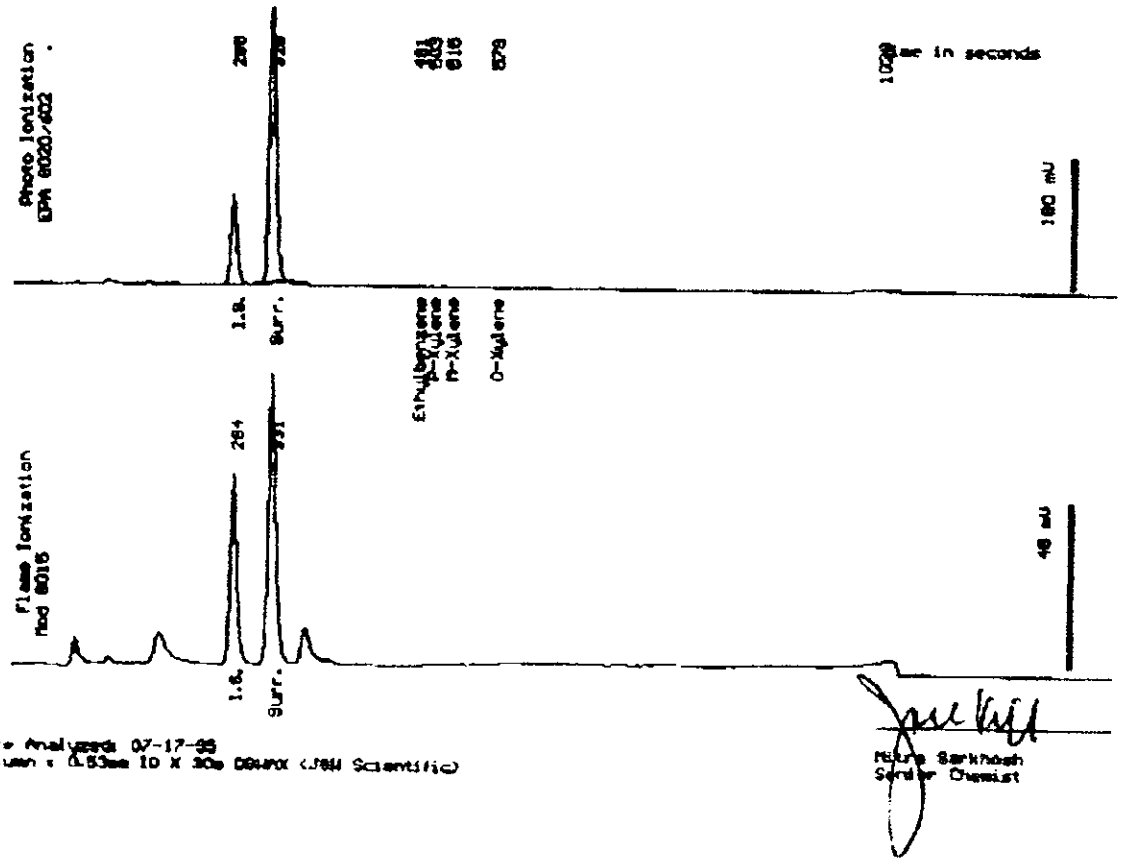
WEST LABORATORY

Sample Log 12479
12479-04

Sample: MW02071395

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 07/13/95
Dilution : 1:1 QC Batch : 2124M
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		130 %



Date Analyzed: 07-17-95
Column : 0.53mm ID X 30m DBwax (J&W Scientific)

Mitra Sarkhosh
Senior Chemist

WEST LABORATORY

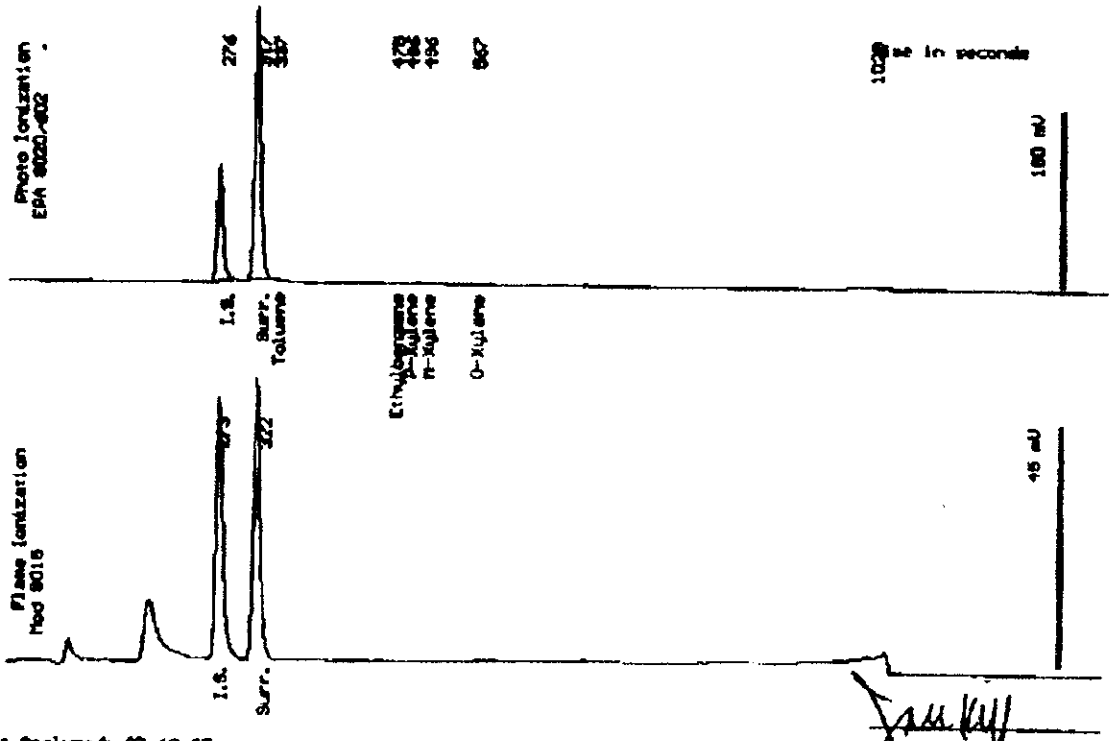
Sample Log 12479

12479-05

Sample: MW03071395

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 07/13/95
Dilution : 1:1 QC Batch : 2124M
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		94 %



Date Analyzed: 07-19-95
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Mike Sarkhosh
Senior Chemist

WEST LABORATORY

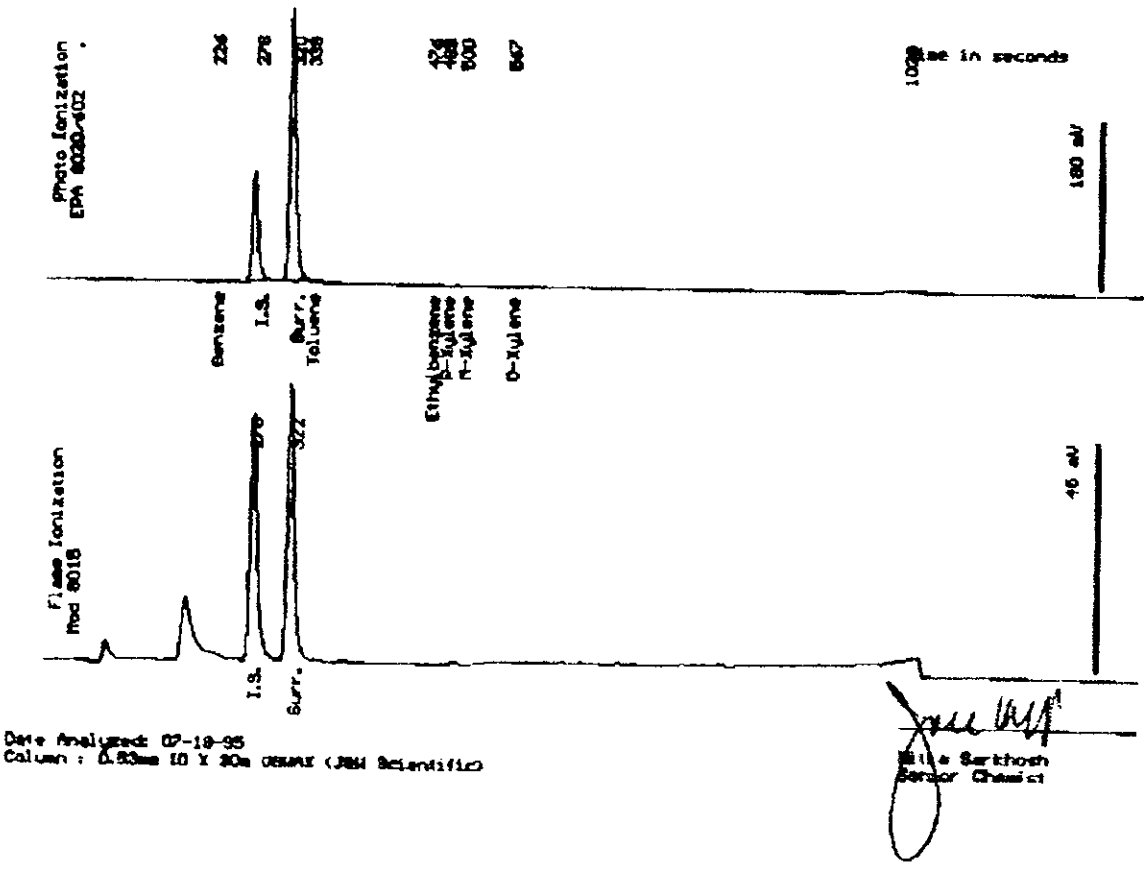
Sample Log 12479

12479-04

Sample: DW01071395

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 07/13/95
Dilution : 1:1 QC Batch : 2124M
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		95 %



Date Analyzed: 07-18-95
Column : 0.53mm ID X 30m DB5MS (J&W Scientific)

Bill Sarkhosh
Senior Chemist

WEST LABORATORY

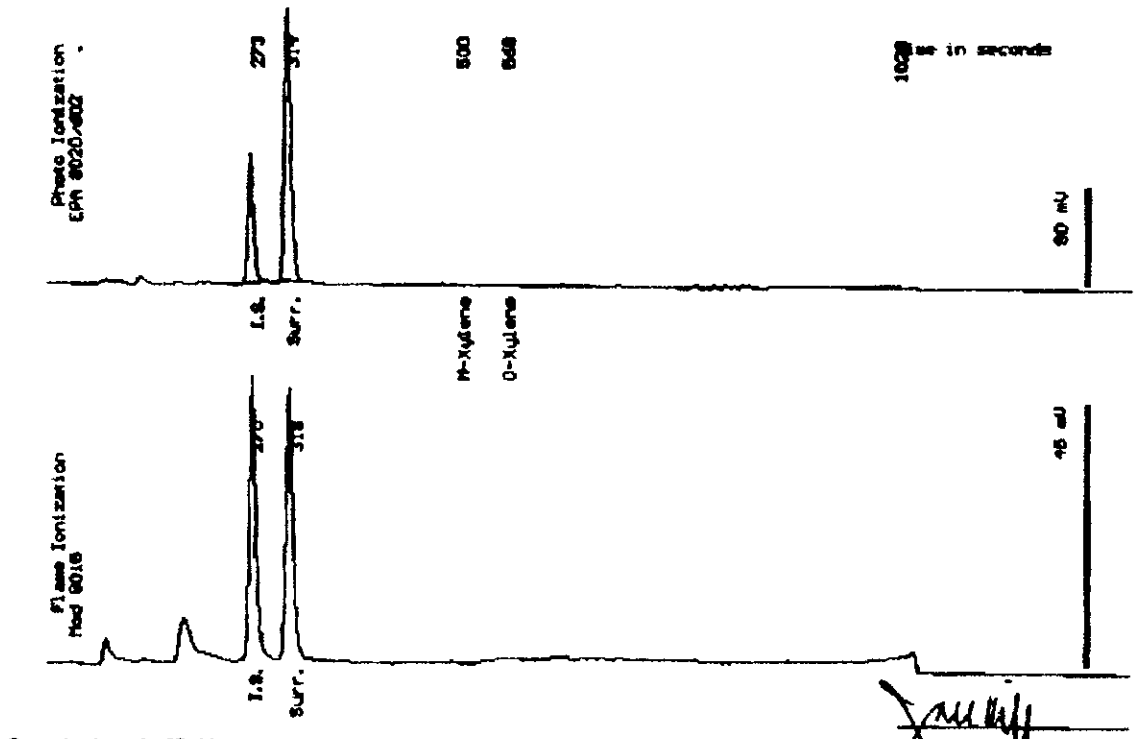
Sample Log 12479

12479-01

Sample: RS01071395

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 07/13/95
Dilution : 1:1 QC Batch : 2124N
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		95 %



Date Analyzed 07-18-95
Column : 0.53mm ID X 30m DB624 (J&W Scientific)

Nita Surkhab
Senior Chemist

WEST LABORATORY

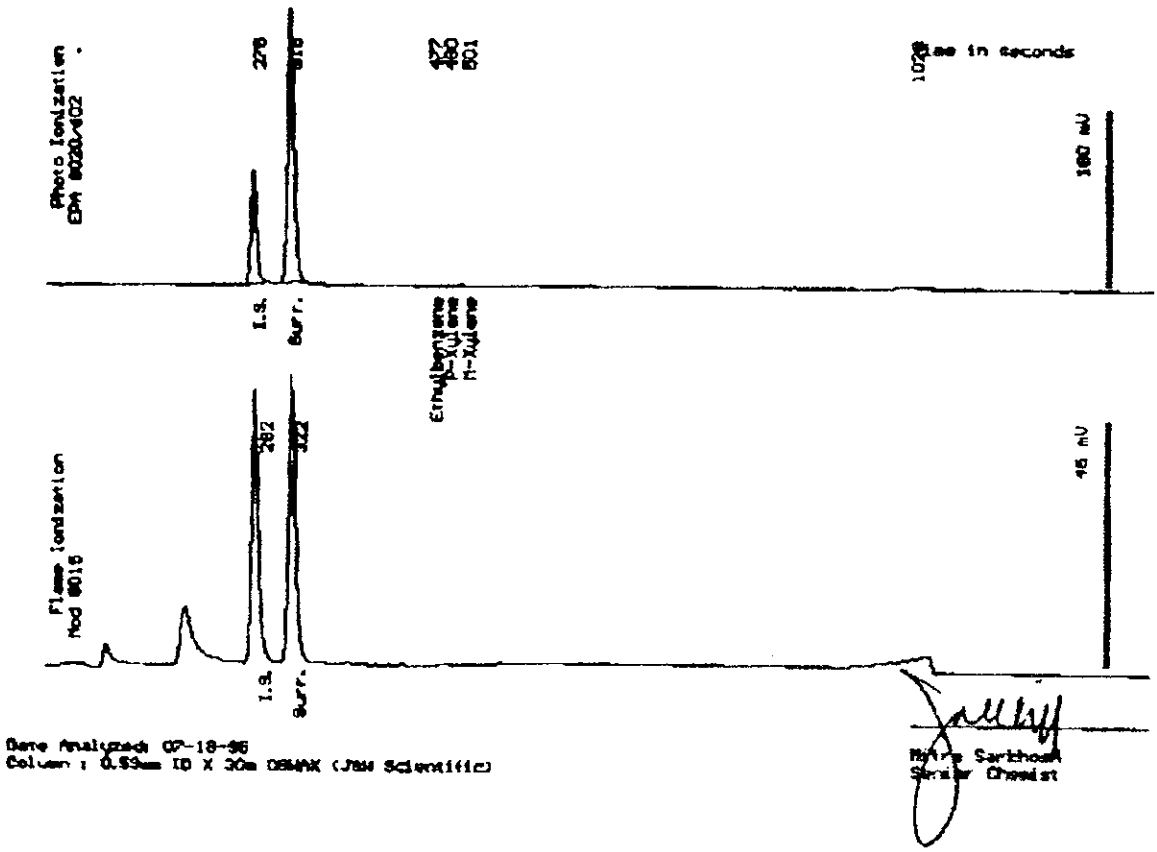
Sample Log 12479

12479-03

Sample: TB01071395

From : Joe Sio Chevrolet (Proj. # 12104)
Sampled : 07/13/95
Dilution : 1:1 QC Batch : 2124M
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		96 %



Date Analyzed 07-18-95
Column : 0.53mm ID X 30m DB624 (J&W Scientific)

Mayra Sarkhosh
Senior Chemist

WEST LABORATORY

Sample Log 12479
July 18, 1995

Volatile Halocarbons

Sample Name : MW02071395

Project Name : Joe Sio Chevrolet
Project Number : 12104
Sample Date : 07/13/95
Date Analyzed : 07/17/95
Analysis Method : EPA 601

Date Received : 07/14/95
Dilution : 1:1
Sample Matrix : Water
Lab Number : 12479-04

Parameter	MRL	Measured Conc.	Units
Chloromethane	0.50	< 0.50	ug/L
Vinyl Chloride	0.50	< 0.50	ug/L
Bromomethane	0.50	< 0.50	ug/L
Chloroethane	0.50	< 0.50	ug/L
Trichlorofluoromethane	0.50	< 0.50	ug/L
1,1-Dichloroethene	0.50	< 0.50	ug/L
Dichloromethane	0.50	< 0.50	ug/L
t-1,2-Dichloroethene	0.50	< 0.50	ug/L
1,1-Dichloroethane	0.50	< 0.50	ug/L
c-1,2-Dichloroethene	0.50	< 0.50	ug/L
Chloroform	0.50	< 0.50	ug/L
1,1,1-Trichloroethane	0.50	< 0.50	ug/L
Carbon Tetrachloride	0.50	0.96	ug/L
1,2-Dichloroethane	0.50	< 0.50	ug/L
Trichloroethene	0.50	< 0.50	ug/L
1,2-Dichloropropane	0.50	< 0.50	ug/L
Bromodichloromethane	0.50	< 0.50	ug/L
c-1,3-Dichloropropene	0.50	< 0.50	ug/L
t-1,3-Dichloropropene	0.50	< 0.50	ug/L
1,1,2-trichloroethane	0.50	< 0.50	ug/L
Tetrachloroethene	0.50	68	ug/L
Dibromochloromethane	0.50	< 0.50	ug/L
Chlorobenzene	0.50	< 0.50	ug/L
Bromoform	0.50	< 0.50	ug/L
1,1,2,2-Tetrachloroethane	0.50	< 0.50	ug/L
1,3-Dichlorobenzene	0.50	< 0.50	ug/L
1,4-Dichlorobenzene	0.50	< 0.50	ug/L
1,2-Dichlorobenzene	0.50	< 0.50	ug/L
2-Chlorotoluene (Surr.)		105	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

Approved By : Joel L. Kiff

WEST LABORATORY

July 21, 1995
Sample Log 12479

From : Joe Sio Chevrolet (Project # 12104)
Date Sampled : 07/13/95
Matrix : Water

Date Received : 07/14/95
Units : (mg/L)

Total Lead by GFAA by SW-846 Method 7421

WEST ID	Sample ID	Result	MRL	Date Digested	Date Analyzed
12479-03	MW01071395	0.0048	0.003	07/18/95	07/21/95
12479-04	MW02071395	0.938	0.006	07/18/95	07/21/95

MRL = Method Reporting Limit

Michelle L. Anderson
Inorganics Supervisor

MEST LABORATORY

July 21, 1995
Sample Log 12479-05

Sample : MW03071396
From : Joe Sio Chevrolet (Project # 12104)
Matrix : Water

Date Sampled : 07/13/95
Date Received : 07/14/95
Units : (mg/L)

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

Analyte	Result	MRL	EPA Method	Date Digested	Date Analyzed
Cadmium (Cd)	<0.004	0.004	6010	07/18/95	07/19/95
Chromium (Cr)	**0.012**	0.007	6010	07/18/95	07/19/95
Lead (Pb)	<0.003	0.003	7421	07/18/95	07/21/95
Nickel (Ni)	<0.015	0.015	6010	07/18/95	07/19/95
Zinc (Zn)	**0.024**	0.010	6010	07/18/95	07/19/95

MRL = Method Reporting Limit

Michelle L. Anderson
Inorganics Supervisor

WEST LABORATORY

July 18, 1995
Sample Log 12479

QC Report for EPA 602 & Modified EPA 8015

From : Joe Sio Chevrolet (Proj. # 12104)
Sample(s) Received : 07/14/95

Parameter	Matrix Spike % Recovery	Matrix Spike Duplicate % Recovery	RPD *
Benzene	102	102	0
Ethylbenzene	101	100	1
TPH as Gasoline	97	95	2

* 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

Joe Sio
Owner Chevrolet

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

BATCH QC REPORT

Sample Log 12479
July 18, 1995

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

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	07/17/95	< 0.50	ug/L											
Vinyl Chloride	EPA 601	07/17/95	< 0.50	ug/L											
Bromomethane	EPA 601	07/17/95	< 0.50	ug/L											
Chloroethane	EPA 601	07/17/95	< 0.50	ug/L											
Trichlorofluoromethane	EPA 601	07/17/95	< 0.50	ug/L											
1,1-Dichloroethene	EPA 601	07/17/95	< 0.50	ug/L	12469-03	< 0.50	20	20.6	103	20	21.3	106	70-130	2.87	20
Dichloromethane	EPA 601	07/17/95	< 0.50	ug/L											
t-1,2-Dichloroethene	EPA 601	07/17/95	< 0.50	ug/L											
1,1-Dichloroethane	EPA 601	07/17/95	< 0.50	ug/L											
c-1,2-Dichloroethene	EPA 601	07/17/95	< 0.50	ug/L											
Chloroform	EPA 601	07/17/95	< 0.50	ug/L											
1,1,1-Trichloroethane	EPA 601	07/17/95	< 0.50	ug/L											
Carbon Tetrachloride	EPA 601	07/17/95	< 0.50	ug/L											
1,2-Dichloroethane	EPA 601	07/17/95	< 0.50	ug/L											
Trichloroethene	EPA 601	07/17/95	< 0.50	ug/L	12469-03	< 0.50	20	21.4	107	20	24.0	120	70-130	11.4	20
1,2-Dichloropropane	EPA 601	07/17/95	< 0.50	ug/L											
Bromodichloromethane	EPA 601	07/17/95	< 0.50	ug/L											
c-1,3-Dichloropropene	EPA 601	07/17/95	< 0.50	ug/L											
t-1,3-Dichloropropene	EPA 601	07/17/95	< 0.50	ug/L											
1,1,2-trichloroethene	EPA 601	07/17/95	< 0.50	ug/L											
Tetrachloroethene	EPA 601	07/17/95	< 0.50	ug/L											
Dibromochloromethane	EPA 601	07/17/95	< 0.50	ug/L											
Chlorobenzene	EPA 601	07/17/95	< 0.50	ug/L	12469-03	< 0.50	20	17.9	89.5	20	18.8	94.0	70-130	4.90	20
Bromoform	EPA 601	07/17/95	< 0.50	ug/L											
1,1,2,2-Tetrachloroethane	EPA 601	07/17/95	< 0.50	ug/L											
2-Chlorotoluene (Surr.)	EPA 601	07/17/95	109	%											
1,3-Dichlorobenzene	EPA 601	07/17/95	< 0.50	ug/L											
1,4-Dichlorobenzene	EPA 601	07/17/95	< 0.50	ug/L											
1,2-Dichlorobenzene	EPA 601	07/17/95	< 0.50	ug/L											

Conc. = Concentration

Approved By : Joel L. Kl

WEST LABORATORY

July 21, 1995

Metals QC Report for Sample Log 12479

From : Joe Sio Chevrolet (Project # 12104)
Matrix : Water
Sample Spiked for MS/MSD : 12463-07

Units : (mg/L)

Method Blank

Analyte	Result	MRL	EPA Method	Date Digested	Date Analyzed
Lead (Pb)	<0.003	0.003	7421	07/18/95	07/21/95

MRL = Method Reporting Limit

Laboratory Control Sample (LCS)

Analyte	% Recovery	EPA Method	Date Digested	Date Analyzed
Lead (Pb)	100	7421	07/18/95	07/21/95

LCS Limits are 85 - 115%.

Matrix Spikes

Analyte	MS % Recov	MSD % Recov	RPD	EPA Method	Date Digested	Date Analyzed
Lead (Pb)	108	109	1	7421	07/18/95	07/21/95

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

July 21, 1995

Metals QC Report for Sample Log 12479

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	07/18/95	07/19/95
Chromium (Cr)	<0.007	0.007	6010	07/18/95	07/19/95
Lead (Pb)	<0.003	0.003	7421	07/18/95	07/21/95
Nickel (Ni)	<0.015	0.015	6010	07/18/95	07/19/95
Zinc (Zn)	<0.010	0.010	6010	07/18/95	07/19/95

MRL = Method Reporting Limit

Laboratory Control Sample (LCS)

Analyte	% Recovery	EPA Method	Date Digested	Date Analyzed
Cadmium (Cd)	112	6010	07/18/95	07/19/95
Chromium (Cr)	103	6010	07/18/95	07/19/95
Lead (Pb)	100	7421	07/18/95	07/21/95
Nickel (Ni)	99	6010	07/18/95	07/19/95
Zinc (Zn)	110	6010	07/18/95	07/19/95

LCS Limits are 85 - 115%.

Michelle L. Anderson
Inorganics Supervisor

WEST LABORATORY

July 21, 1995

Metals QC Report for Sample Log 12479 (cont'd)

From : Joe Sio Chevrolet (Project # 12104)
Sample Spiked for MS/MSD : 12479-05 (ICP), 12463-07 (GFAA)

Matrix Spikes

Analyte	MS % Recov	MSD % Recov	RPD	EPA Method	Date Digested	Date Analyzed
Cadmium (Cd)	111	115	4	6010	07/18/95	07/19/95
Chromium (Cr)	96	96	0	6010	07/18/95	07/19/95
Lead (Pb)	106	109	1	7421	07/18/95	07/21/95
Nickel (Ni)	99	97	2	6010	07/18/95	07/19/95
Zinc (Zn)	103	102	1	6010	07/18/95	07/19/95

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: DAVE TIGHT
Phone #: 510-420-7910

Company/Address: PHILIP ENVIRONMENTAL
5901 CHRISTIE AVE STE 501
EMERYVILLE CA
FAX #: 510-658-7990

Project Number: 12104
P.O.#: 55691
Project Name: JOE S10 CHEVRON

Project Location: 914 SAN PABLO AVE, ALBANY CA
Sampler Signature: [signature]

ANALYSIS REQUEST

Sample ID	Sampling DATE	Sampling TIME	Container: VOA	SLEEVE	1L GLASS	1L PLASTIC	Method Preserved: HCl	HNO_3	ICE	NONE	SOLID	Matrix: WATER	SOIL	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 LUFT	Total Pb	RUSH SERVICE (12 hr) or (24 hr)	EXPEDITED SERVICE (48 hr) or (1 wk)	STANDARD SERVICE (2wk) 1 wk
QS01071395	071395	1045	X				X		X			X			X																					X
TB01071395		0740	X				X		X			X			X																					X
MW01071395		1220	X			X	X	X	X			X			X																		X			X
MW02071395		1300	X			X	X	X	X		X	X			X					X													X			X
MW03071395		1100	X			X	X	X	X			X			X																	X	X			X
DW01071395		1105	X				X		X			X			X																					X

W.E.T. (✓) TOTAL (✓)

RECEIVED 7/14 TIME 1300

Relinquished by:	Date	Time	Received by:	Date/Time
[signature]	7/13/95	1510	[signature]	7/13/95 1600
[signature]	7/14/95	0905	[signature]	
[signature]	7/14/95	1230	Received by Laboratory: [signature]	

Remarks: MW03 071395 WAS FIELD FILTERED
PLEASE RUN SAMPLE FOR LUFT METALS. WD

Bill To: