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April 11, 1997

VIA FEDERAL EXPRESS

Ms. Juliet Shin
Hazardous Materials Specialist
Alameda County Department of
Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Re: STID 3856; 1055 Eastshore Highway, Albany, CA

Dear Ms. Shin:

Enclosed is AllWest's Groundwater Monitoring Report for the fourth quarter of 1996. Please call me if you have any comments concerning the latest monitoring data.

Sincerely,



John S. Hahn

Enclosure

cc: John Frank (w/enclosure)
Marc Cunningham (w/o enclosure)
John T. Lynch (w/o enclosure)
Craig Denny (w/enclosure)

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NOTICE



AllWest Environmental, Inc.

Specialists in Environmental Due
Diligence and Remedial Services

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GROUNDWATER MONITORING REPORT

Fourth Quarter 1996

*1055 Eastshore Highway
Albany, California*

ALLWEST PROJECT 96208.28
March 21, 1997

PREPARED BY:

Keith Craig
Project Manager

REVIEWED BY:

Long Ching, PE
Senior Project Manager

12/31/97



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MONITORING WELLS SAMPLING REPORT

Fourth Quarter 1996

*1055 Eastshore Highway
Albany, California*

I. INTRODUCTION

This report presents the Fourth Quarter 1996 results of a quarterly groundwater monitoring program performed by *AllWest Environmental* at 1055 Eastshore Highway, Albany, California. The monitoring program was initiated in response to an *Alameda County Department of Environmental Health (ACDEH)* request for quarterly sampling. The objective of the sampling program was to investigate the groundwater in the vicinity of the former underground storage tank (UST).

The scope of *AllWest's* services included sampling of four wells (MW-1 through MW-4), the measuring of groundwater levels in all four wells, and the submittal of the samples to a state certified laboratory, *Global Environmental Laboratory, Inc. (Global Lab)*. The samples were submitted for analysis of total petroleum hydrocarbons as gasoline (TPH-g), Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX). After receipt of the analytical results, a written report was prepared to present the results.

II. SITE HISTORY

The subject property lies in the western-most area of Albany, Alameda County, California in an industrial area (See Figures 1 and 2). The subject property is located on the east side of Eastshore Highway, approximately 200 feet south of the Albany off-ramp from Highway I-80. San Francisco Bay is located approximately 2,000 feet west of the subject property.

The subject property facility currently is occupied by the City of Albany Corporation Yard. One underground storage tank (UST) containing gasoline was removed by *Resna Industries* on September 2, 1992. The former UST was located south of the building. A generalized site plan with the former UST location is presented on Figure 3.

Soil near the UST excavation was removed in September 1992. A preliminary site assessment (PSA) was conducted in July 1994. The PSA consisted of the advancement of seven boreholes, the installation of three groundwater monitoring wells (MW-1 through MW-3), and the submittal of soil and groundwater samples to an analytical laboratory for analyses. The PSA indicated that gasoline constituents were present in soil and groundwater at the site.

In June 1995, monitoring well MW-4 was installed and sampled. All four monitoring wells were sampled in June, September and December of 1995, and March, June, and September of 1996 as requested by the ACDEH. Additionally, groundwater elevations were measured each quarter as part of the quarterly groundwater monitoring program.

III. GROUNDWATER SAMPLING ACTIVITIES

Activities for the Fourth Quarter 1996 monitoring event included sampling and measuring the groundwater elevation of all four monitoring wells (MW-1 through MW-4). The work was conducted by *AllWest* personnel on January 17, 1997.

AllWest's groundwater sampling protocols, presented in Appendix A of this report, were followed. Groundwater parameters including conductivity, temperature, and pH were collected at three gallon intervals and recorded on the sampling logs (See Appendix B). At least three well casing volumes were purged prior to sampling. After purging, three 40-milliliter samples were collected from each of the four monitoring wells. No product sheen was noted.

The January 17, 1997 groundwater levels as well as the cumulative groundwater level measurements from wells MW-1 through MW-4 are presented in Table 1. Groundwater flow direction was calculated to be towards the southwest with an average gradient of 0.005 ft/ft.

IV. LABORATORY TEST RESULTS

The four collected water samples were submitted to a State of California certified analytical laboratory, *Global Environmental Laboratory, Inc. (Global Lab)*, of Fremont, California. All water samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and Benzene, Toluene, Ethyl Benzene, and Xylene (BTEX).

The laboratory results indicated concentrations of TPH-g at 9,700 $\mu\text{g/L}$ (approximately equivalent to parts per billion [ppb]) in well MW-2 only. No TPH-g was detected in samples from MW-1, MW-3, and MW-4 at or above the laboratory reporting limit of 50 ppb. BTEX concentrations for MW-2 were reported as 1,200 ppb Benzene, 140 ppb Toluene, 440 ppb Ethyl Benzene, and 1,300 ppb Xylene. No BTEX concentrations were detected in MW-1, MW-3, and MW-4 at or above the laboratory reporting limit of 0.5 ppb.

A review of the laboratory internal quality assurance/quality control (QA/QC) information indicates the spike data were within the laboratory recovery limits. The sample was analyzed within the acceptable EPA holding time. Therefore, the laboratory results reported by *Global* are considered to be representative and of good quality.

A summary of analytical results for wells MW-1 through MW-4 to date are presented in Table 2. A copy of the laboratory test reports and Chain-of-Custody documents are displayed in Appendix C.

V. CONCLUSIONS

As indicated by the laboratory test results, low levels of TPH-g and BTEX were detected in groundwater samples from monitoring well MW-2. The concentrations of TPH-g and BTEX in well MW-2 are of the same magnitude as the previous results. The non-detectable results from MW-1, MW-3 and MW-4 continue to indicate the extent of contaminated groundwater is limited and within the immediate vicinity of MW-2.

VI. REPORT LIMITATIONS

The work described in this report has been performed accordance with generally accepted engineering principles an practices. The conclusions and recommendations contained herein are presented based on environmental conditions of the site and laboratory test results of the groundwater sample. It must be recognized that changes can occur in groundwater conditions due to seasonal variations, or other reasons. Furthermore, the distribution of chemical concentrations in the groundwater can vary both temporally and spatially. The chemical analyses results are valid as of the date and at the sampling location only. *AllWest* cannot be held accountable for the accuracy of the test data from an independent laboratory, nor for any analyte quantities falling below the recognized standard detection limits for the method utilized by the independent laboratory.

**TABLE 1
CUMULATIVE SUMMARY OF GROUNDWATER
ELEVATION MEASUREMENTS**

*1055 Eastshore Highway
Albany, California*

Well Number and Sampling Date	Well Casing Elevation	Depth to Water (In feet)	Groundwater Elevation (Assumed Datum equals 12')	Change Since Last Measurement (In feet)	Average Hydraulic Gradient
MW-1	6.62 feet				
6/28/94		6.06	0.56		0.009 ft/ft SSE
6/29/94		6.04	0.58	+0.02	0.004 ft/ft WNW
7/20/94		6.08	0.54	-0.04	0.003 ft/ft S
6/9/95		4.85	1.77	+1.53	0.004 ft/ft SW
6/29/95		4.79	1.90	+0.13	0.005 ft/ft SW
9/7/95		5.90	0.72	-1.18	0.004 ft/ft SW
12/20/95		3.98	2.64	+1.92	0.005 ft/ft SW
3/22/96		3.55	3.07	+0.43	0.007 ft/ft SE
6/21/96		5.20	1.42	-1.65	0.005 ft/ft W
9/17/96		5.86	0.76	-0.66	0.003 ft/ft NW
1/17/97		3.35	3.27	+2.51	0.005 ft/ft SW
MW-2	6.92 feet				
6/28/94		6.26	0.66		0.009 ft/ft SSE
6/29/94		6.34	0.58	-0.08	0.004 ft/ft WNW
7/20/94		6.33	0.59	+0.01	0.003 ft/ft S
6/9/95		5.13	1.79	+1.20	0.004 ft/ft SW
6/29/95		4.99	1.93	+0.14	0.005 ft/ft SW
9/7/95		6.23	0.69	-1.24	0.004 ft/ft SW
12/20/95		4.12	2.80	+2.11	0.005 ft/ft SW
3/22/96		3.70	3.33	+0.42	0.007 ft/ft SE
6/21/96		5.44	1.48	-1.85	0.005 ft/ft W
9/17/96		6.11	0.81	-0.67	0.003 ft/ft NW
1/17/97		3.51	3.41	+2.60	0.005 ft/ft SW
MW-3	7.02 feet				
6/28/94		6.30	0.72		0.009 ft/ft SSE
6/29/94		6.29	0.73	+0.01	0.004 ft/ft WNW
7/20/94		6.36	0.66	-0.07	0.003 ft/ft S
6/9/95		5.16	1.86	+1.20	0.004 ft/ft SW
6/29/95		5.03	1.99	+0.13	0.005 ft/ft SW
9/7/95		6.42	0.60	-1.39	0.004 ft/ft SW
12/20/95		4.02	3.00	+1.61	0.005 ft/ft SW
3/22/96		3.67	3.35	+0.35	0.007 ft/ft SE
6/21/96		5.45	1.57	-1.78	0.005 ft/ft W
9/17/96		6.17	0.85	-0.72	0.003 ft/ft NW
1/17/97		3.46	3.56	+2.71	0.005 ft/ft SW
MW-4	6.46 feet				
6/29/95		4.60	1.86		0.005 ft/ft SW
9/7/95		5.79	0.64	-1.22	0.004 ft/ft SW
12/20/95		3.66	2.80	+2.16	0.005 ft/ft SW
3/22/96		3.29	3.17	+0.37	0.007 ft/ft SE
6/21/96		4.93	1.53	-1.64	0.005 ft/ft W
9/17/96		5.62	0.84	-0.69	0.003 ft/ft NW
1/17/97	3.07	3.39	+2.55	0.005 ft/ft SW	

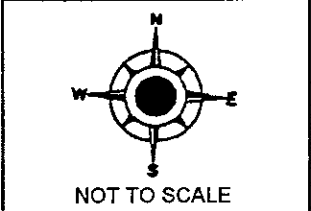
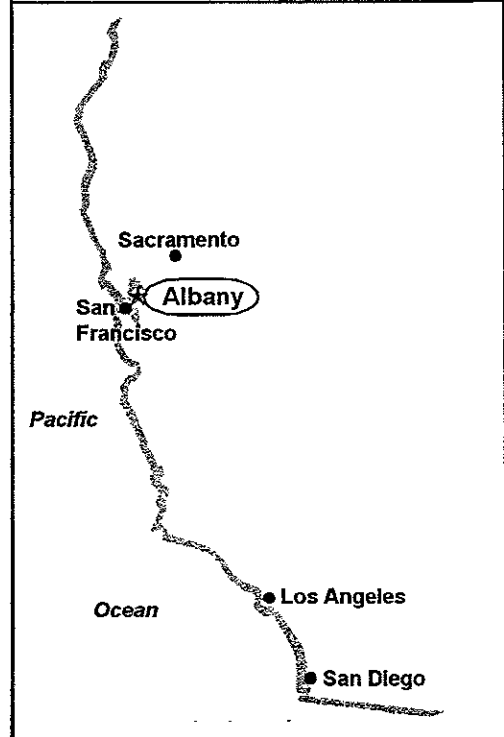
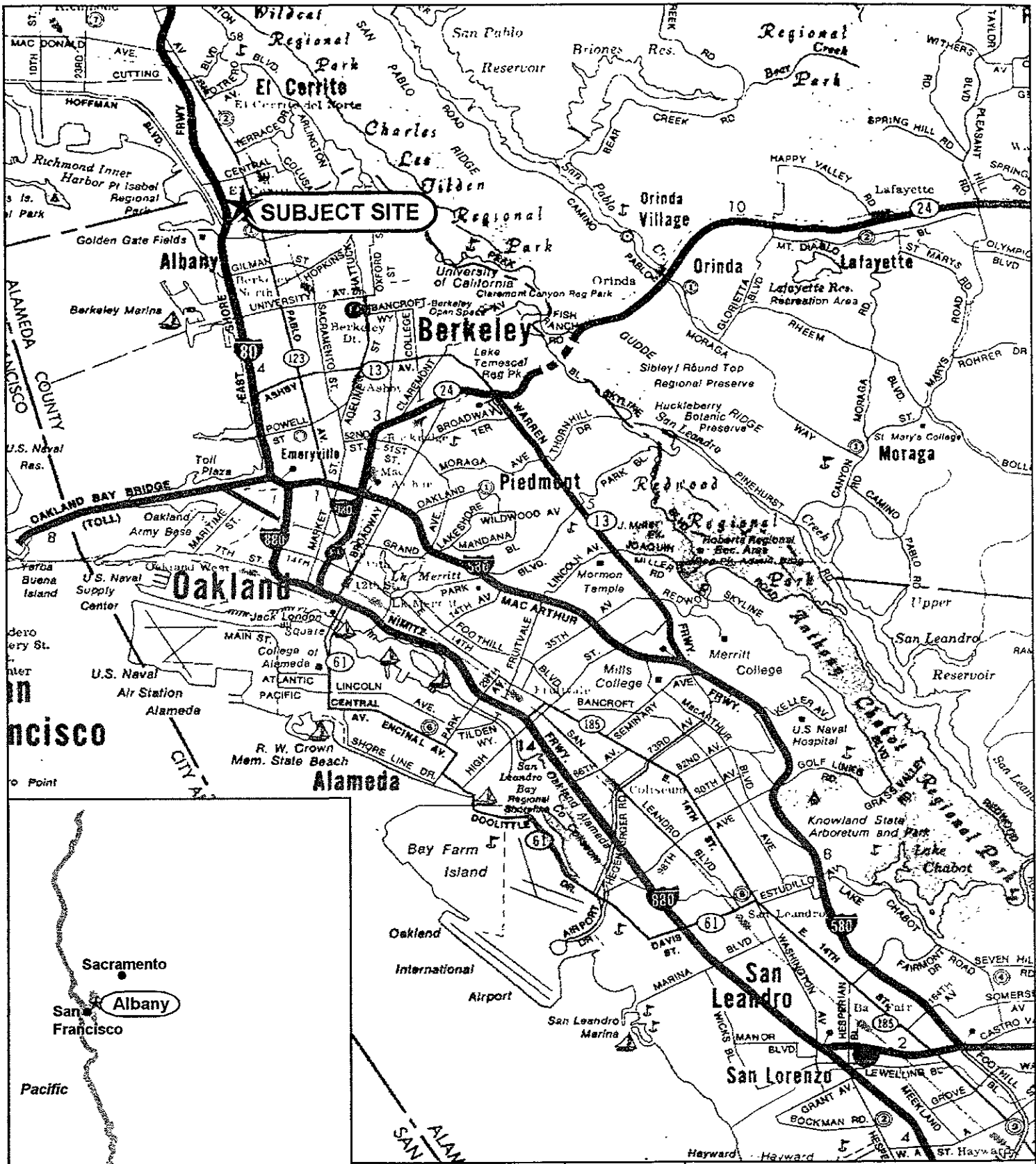
Notes: MW-4 was installed in June 1995.

TABLE 2
CUMULATIVE SUMMARY OF GROUNDWATER
ANALYTICAL RESULTS

1055 Eastshore Highway
Albany, California

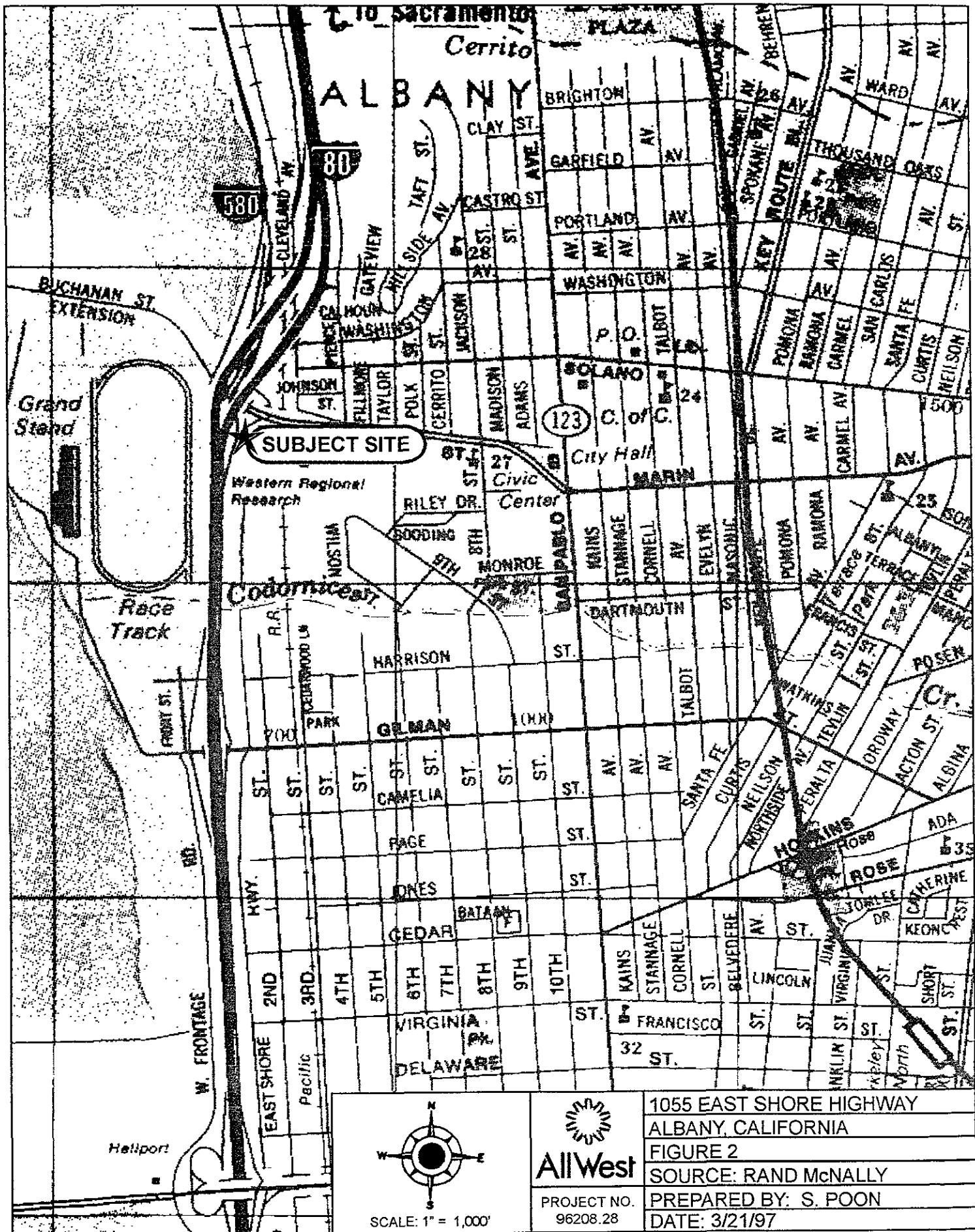
Monitoring Well No. and Sampling Date	TPH-Gasoline	Benzene	Toluene	Ethyl Benzene	Xylenes
MW-1					
6/23/94	ND (<50)	ND (<0.3)	0.60	2.5	9.0
6/29/95	ND (<50)	0.8	ND (<0.5)	1.3	3.2
9/7/95	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
12/20/95	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
3/22/96	ND (<50)	ND (<0.5)	2.5	ND (<0.5)	2.2
6/21/96	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
9/17/96	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
1/17/97	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
MW-2					
6/23/94	330	130	11	20	10
6/29/95	3,800	260	9.8	190	310
9/7/95	2,700	100	1.9	92	210
12/20/95	1,500	170	50	30	170
3/22/96	4,500	920	30	360	1,300
6/21/96	1,100	140	1.6	62	160
9/17/96	190	9.0	8.2	10	26
1/17/97	9,700	1,200	140	440	1,300
MW-3					
6/23/94	52.0	ND (<0.3)	ND (<0.3)	4.0	13
6/29/95	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
9/7/95	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
12/20/95	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
3/22/96	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
6/21/96	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
9/17/96	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
1/17/97	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
MW-4					
6/29/95	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
9/7/95	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
12/20/95	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
3/22/96	60	0.8	2.8	1.1-ppb	4.7
6/21/96	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
9/17/96	ND (<50)	ND (<0.5)	2.3	ND (<0.5)	1.4
1/17/97	ND (<50)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)

Notes: ND = Not-detected at or above the laboratory reporting limit.
 All numerical values are in units of $\mu\text{g/L}$, approximately equivalent to ppb.
 MW-4 installed June 1995.




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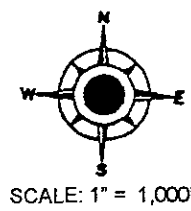
1055 EAST SHORE HIGHWAY
 ALBANY, CALIFORNIA
FIGURE 1
 SOURCE: RAND MCNALLY
 PREPARED BY: S. POON
 DATE: 3/21/97

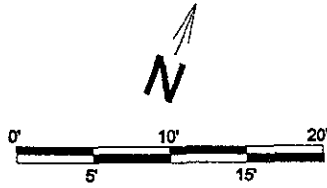


SUBJECT SITE

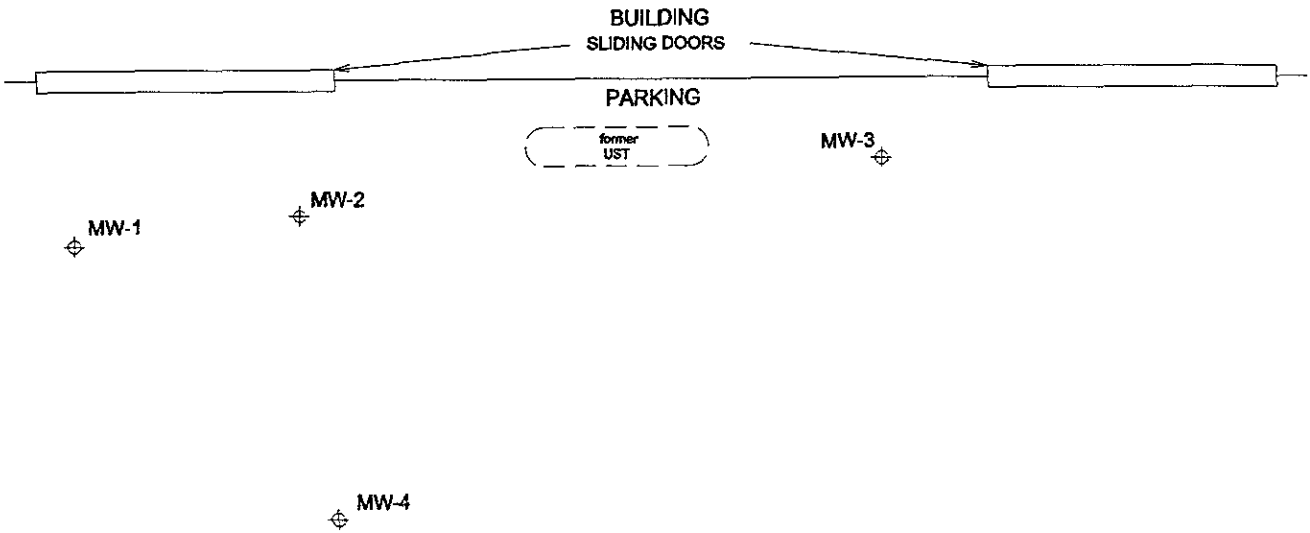
AllWest
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1055 EAST SHORE HIGHWAY
 ALBANY, CALIFORNIA
 FIGURE 2
 SOURCE: RAND McNALLY
 PREPARED BY: S. POON
 DATE: 3/21/97





APPROXIMATE SCALE



WELL LOCATION MAP

EXPLANATION

MW-1 = MONITORING WELL LOCATION



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1055 EAST SHORE HIGHWAY

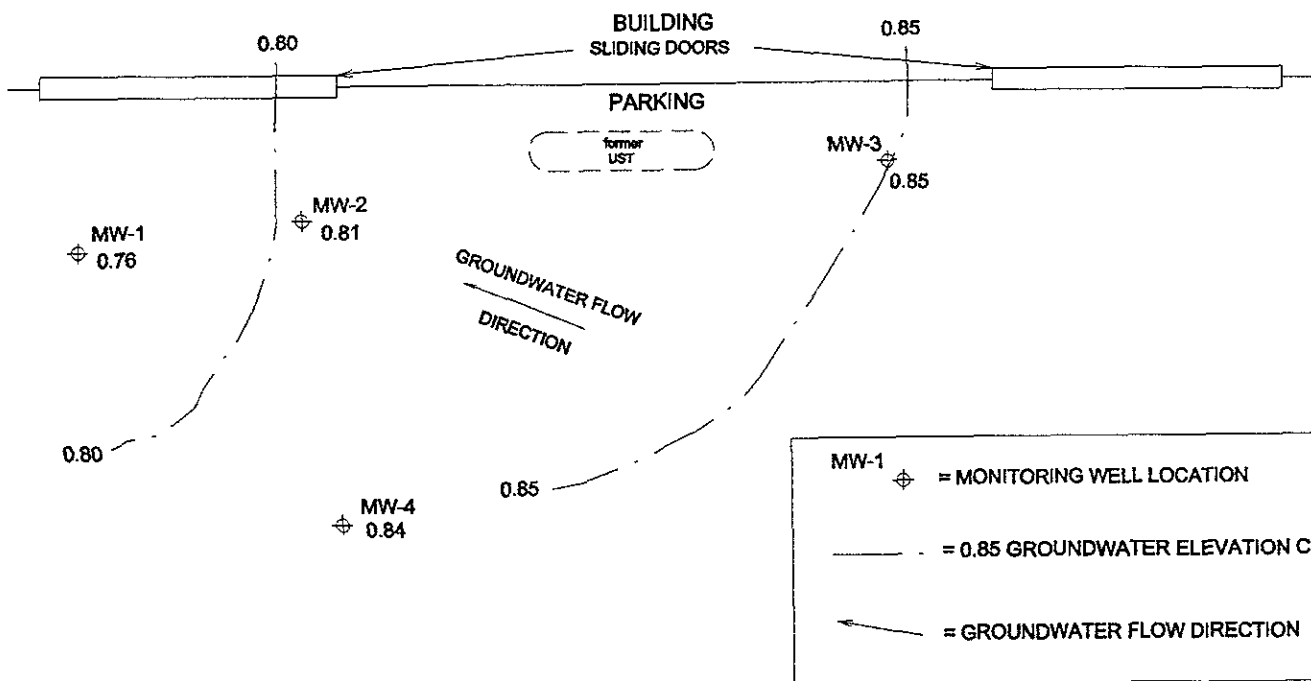
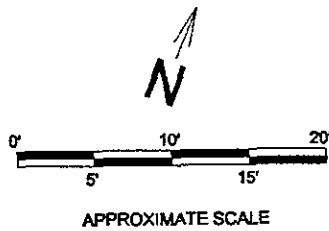
ALBANY, CALIFORNIA

FIGURE 3

SOURCE: ALLWEST

DRAWN BY: S. POON

DATE: 3/21/97



GROUNDWATER CONTOUR MAP



1055 EASTSHORE HIGHWAY
ALBANY, CALIFORNIA

FIGURE 4
SOURCE: ALLWEST

PROJECT NO.
96208.28

DRAWN BY: S. POON
DATE: 3/21/97

APPENDIX A

GROUNDWATER SAMPLING PROCEDURES

Upon arriving at the groundwater monitoring well site, each monitoring well vault and well casing are first examined for damage which could render the well inoperable. Any water collected during the recent rains were purged from the well vault to avoid contamination from rain water. The upper end-cap was then removed and an organic vapor meter (OVM) was used to detect hydrocarbon vapor that might exist inside the well casing. The reading of the OVM was then recorded onto the groundwater sampling field log. After an appreciable time for groundwater levels to equilibrate, electric water level sounder was lowered into the well casing to measure the depth to water to the nearest 0.01 feet. A clear polyethylene bailer was then lowered into the well casing and partially submerged. Upon retrieval of the clear bailer, the surface of the water column retained in the bailer was carefully examined for floating product or product sheen.

After initial measurements were completed and recorded, each monitoring well was purged by an electrical submersible pump or decontaminated teflon bailer. A minimum of 3 well volumes of groundwater was purged. Groundwater quality parameters (temperature, pH, and conductivity) were monitored with a combination meter after each well volume was removed. Purging was considered complete when purging indicators were stabilized (consecutive readings within 10% of each other) or the purged water was relatively free of sediments. All purged water was temporarily stored on-site in labeled 55-gallon drums pending test results to determine the proper disposal method. If no contamination was found then the purge water was disposed of as nonhazardous.

Groundwater sampling was conducted after the water level in the well recovered to at least 80% of the initial level that was recorded before purging. The groundwater sample was collected using a disposable bailer, which was discarded after the sampling event. Upon retrieval of the disposable bailer, the retained water was carefully transferred to appropriate glass container(s) (three 40-ml VOAs) furnished by the analytical laboratory. A bottom emptying device was placed on the bailer to minimize the loss of volatile organic compounds during transfer. All sample containers were fitted with teflon lined septum/cap and filled such that no headspace was present. After the water sample was properly transferred to the appropriate containers, the containers were labeled and immediately placed on ice in an insulated cooler to preserve the chemical characteristics of the sample.

To prevent cross contamination, all groundwater sampling equipment that came into contact with the groundwater was thoroughly cleaned by washing in Alconox (a non-phosphate detergent) solution and double rinsed with distilled water prior to each well sampling event. Groundwater samples were stored and transported in an insulated cooler filled with crushed ice. The analytical laboratory collected the samples from the site or from the *AllWest* office. The samples were delivered to the analytical laboratory by a special courier of the laboratory. All samples were transported under strict Chain-of-Custody document protocol from the time of sample collection to the time of arrival at the laboratory.

Groundwater Monitoring Well Sampling Field Log

Project No.: 96208.28 Project Name: X Monitor

Well No.: MW-1 Well Location: _____

Well Depth: 20.0 (ft.) Casing Diameter: 2" (in.)

Depth to Water: 3.35 (ft.) Date: 1-17-97 Time: _____

Water Column in Well: 16.65 (ft.) Well Volume: 2.66 (gal.)

Odor? No Free Product? No Thickness: _____

Purging Method: Hand Pump _____ Submersible Pump X Bailer _____ Other _____

Time	pH	Conduc. (μS)	Temp. (°F)	Water Level	Volume Removed	Remark
1420	7.60	2870	63.5		0.5	
1422	7.25	2900	64.6		2.5	
1424	7.10	2930	64.7		5.0	
1426	7.00	2930	64.7		7.5	
1428	7.01	2950	64.8		10.0	Dewatered
1431	7.01	3000	64.7		12.5	

ok

Purging Start Time: 1420

Purging Stop Time: 1432

Total Volume Purged: 12.5 (gal.)

Well Dewater? Yes

Water Level Prior to Sampling: 4.50 (ft.)

Time: 1445

Sampling Method: Teflon Bailer _____ Disposable Bailer X Sampling Pump _____

Sample Collected: 3 - 40 ml VOAs

Sample No.: MW-1

Remarks: _____

Sampler: Keith B. Craig

Date/Time: 1-17-97

Groundwater Monitoring Well Sampling Field Log

Project No.: 96208.28 Project Name: X Monitor

Well No.: MW-2 Well Location: _____

Well Depth: 24.5 (ft.) Casing Diameter: 2" (in.)

Depth to Water: 3.51 (ft.) Date: 1-17-97 Time: _____

Water Column in Well: 20.99 (ft.) Well Volume: 3.36 (gal.)

Odor? Slight HC Free Product? No Thickness: _____

Purging Method: Hand Pump _____ Submersible Pump X Bailer _____ Other _____

Time	pH	Conduc. (μ S)	Temp. ($^{\circ}$ F)	Water Level	Volume Removed	Remark
1525	7.80	2550	63.5		0.5	
1527	7.25	2760	65.1		3.5	Dewatered
1532	4.10	2700	64.8		5.0	Dewatered
1536	6.98	2690	64.5		6.5	
1540	6.91	2680	64.5		8.0	Dewatered

ok

Purging Start Time: 1525 Purging Stop Time: 1540

Total Volume Purged: 8.0 (gal.) Well Dewater? Yes

Water Level Prior to Sampling: 5.75 (ft.) Time: 1555

Sampling Method: Teflon Bailer _____ Disposable Bailer X Sampling Pump _____

Sample Collected: 3 - 40 ml VOAs Sample No.: MW-2

Remarks: HC odor slight to strong

Sampler: Keith B. Craig Date/Time: 1-17-97

Groundwater Monitoring Well Sampling Field Log

Project No.: 96208.28 Project Name: X Monitor

Well No.: MW-3 Well Location: _____

Well Depth: 20.00 (ft.) Casing Diameter: 2" (in.)

Depth to Water: 3.46 (ft.) Date: 1-17-97 Time: _____

Water Column in Well: 16.54 (ft.) Well Volume: 2.65 (gal.)

Odor? No Free Product? No Thickness: N/A

Purging Method: Hand Pump _____ Submersible Pump X Bailer _____ Other _____

Time	pH	Conduc. (μS)	Temp. (°F)	Water Level	Volume Removed	Remark
1200	7.51	2800	63.2		0.8	Highly Turbid
1202	7.18	2930	64.5		2.5	
1204	7.10	2960	65.0		5.0	Slightly Turbid
1206	7.01	2990	64.5		7.5	
1208	7.00	3000	64.5		10.0	Clear Dewatered
1210	6.98	2980	64.6		12.5	

sk

Purging Start Time: 1200 Purging Stop Time: 1211

Total Volume Purged: 12.5 (gal.) Well Dewater? Yes

Water Level Prior to Sampling: 5.60 (ft.) Time: _____

Sampling Method: Teflon Bailer _____ Disposable Bailer X Sampling Pump _____

Sample Collected: 3 - 40 ml VOAs Sample No.: MW-3

Remarks: _____

Sampler: Keith B. Craig Date/Time: 1-17-97

Groundwater Monitoring Well Sampling Field Log

Project No.: 96208.28 Project Name: X Monitor

Well No.: MW-4 Well Location: _____

Well Depth: 25.00 (ft.) Casing Diameter: 2" (in.)

Depth to Water: 3.07 (ft.) Date: 1-17-97 Time: 1000

Water Column in Well: 21.93 (ft.) Well Volume: 3.51 (gal.)

Odor? No Free Product? No Thickness: No

Purging Method: Hand Pump _____ Submersible Pump X Bailer _____ Other _____

Time	pH	Conduc. (μS)	Temp. (°F)	Water Level	Volume Removed	Remark
1035	7.32	2600	63.1		1.0	Slight Turbidity
1038	7.20	2910	65.1		3.5	
1041	6.89	2810	64.8		7.0	Clear
1043	6.92	2850	64.7		10.0	
1045	6.93	2860	64.7		12.5	
1048	6.95	2870	64.5		15.0	

AK

Purging Start Time: 1035 Purging Stop Time: 1048

Total Volume Purged: 15.0 (gal.) Well Dewater? No

Water Level Prior to Sampling: 4.50 (ft.) Time: 1110

Sampling Method: Teflon Bailer _____ Disposable Bailer X Sampling Pump _____

Sample Collected: 3 - 40 ml VOAs Sample No.: MW-4

Remarks: _____

Sampler: Keith B. Craig Date/Time: 1/17/97

January 24, 1997

All West Environmental, Inc.
One Sutter Street, Suite 600
San Francisco, CA 94104

Regarding: **Analytical Results**
Client Project: X Monitor
Global Lab Project: 970117A

Dear Mr. Keith Craig:

Enclosed are the lab results for the samples submitted to Global Lab for the project above. The samples will be disposed of by the laboratory after 30 days from the time they were received.

We appreciate the opportunity to be of assistance to you. If you have any questions or comments, please feel free to contact me at (510) 498-1991.

Sincerely,



Lei Chen
Laboratory Director



DHS (LUFT) TPH-BTEX REPORT (ug/L)

Client: Keith Craig
All West Environmental, Inc.
One Sutter Street, Suite 600
San Francisco, CA 94104
Project: X Monitor
Matrix: Water

Date Sampled: 01-17-97
Date Received: 01-17-97
Date Analyzed: 01-24-97
Date Reported: 01-24-97
Lab Job #: 970117A

Table with 8 columns: Client I.D., Lab. I.D., Benzene, Toluene, Ethyl Benzene, Total Xylenes, Dilution Factor. Rows include MW-1 through MW-4 and Reporting Limit.

ND Not Detected. All analytes recorded as ND were found to be at or below the Reporting Limit.

Reviewed By:

ELAP#: 2132

Signature of Lei Chen
Lei Chen, Laboratory Director



DHS (LUFT) TPH-GASOLINE REPORT (ug/L)

Client: Keith Craig Date Sampled: 01-17-97
All West Environmental, Inc. Date Received: 01-17-97
One Sutter Street, Suite 600 Date Analyzed: 01-24-97
San Francisco, CA 94104 Date Reported: 01-24-97
Project: X Monitor Lab Job #: 970117A
Matrix: Water

Table with 7 columns: Client I.D., Lab. I.D., 8015M Gasoline, and Dilution Factor. Rows include MW-1 to MW-4 and Reporting Limit.

ND Not Detected. All analytes recorded as ND were found to be at or below the Reporting Limit.

Reviewed By:

ELAP#: 2132

Signature of Lei Chen, Laboratory Director

EPA METHOD TEST QA/QC TABLE

GLOBAL PROJECT #: 970117A

Lab I.D.: 970117A-MSP
 Project: X Monitor
 Ext/Prep. Method: EPA 5030
 Date: 01-24-97

Analytical Method: EPA M8015
 Analysis date: 01-24-97
 Matrix: Water
 Unit: ug/L

Analyte	Sample Result	Spike Level	Matrix Spike Result	MS Recovery %	Matrix Spike Dup. Result	MSD Recovery %	Average Recovery %R	LCL %R	UCL %R	RPD %	UCL %RPD
Benzene	0.00	20.00	20.97	104.85	20.99	104.95	104.90	76.00	127.00	0.10	11.00
Toluene	0.00	20.00	22.47	112.35	22.69	113.45	112.90	76.00	125.00	0.97	13.00
Chlorobenzene	0.00	20.00	19.49	97.45	20.33	101.65	99.55	75.00	130.00	4.22	13.00
Gasoline	0.00	1000.00	1006.00	100.60	997.00	99.70	100.15	70.00	130.00	0.90	30.00

Notes:
 Sample Result-Concentration of Sample which is to used for Sample Spike & Sample Spike Duplicate
 Spike Level- Level of Concentration Added to the Sample
 MSP Result- Matrix Spike Result
 MSP %R- Matrix Spike Percent Recovery
 MSPD Result- Matrix Spike Duplicate Result
 MSPD %R- Matrix Spike Duplicate Percent Recovery
 AVG. %R - Average Recovery for MSP & MSPD % Recovery
 LCL- Lower Criteria Level
 UCL- Upper Criteria Level
 RPD- Relative Percent Difference

CLIENT NAME <i>Allwest Environmental</i>	CLIENT JOB NUMBER	PRESERVATIVES <i>815 (w) TPH gasoline 8090 BTEX only</i>	ANALYSIS REQUESTED				FIELD CONDITIONS			
ADDRESS <i>1 Sutter St SF CA</i>	DESTINATION LABORATORY						COMPOSITE:			
PROJECT NAME <i>X monitor</i>	<input checked="" type="checkbox"/> GE 4118 Clipper Court Fremont, CA 94538						SPECIAL INSTRUCTIONS:			
PROJECT MANAGER <i>Keith Coady</i> PHONE # <i>(415) 391-2570</i>	<input type="checkbox"/> Other						TURN AROUND TIME			
SAMPLED BY							24 HOURS	48 HOURS	1 WEEK	OTHERS
JOB DESCRIPTION <i>GW sampling</i>										
SITE LOCATION <i>Allway</i>										

DATE	TIME	METHOD	MATRIX	CONTAINER		HCL	HNO3	OTHERS	24 HOURS	48 HOURS	1 WEEK	OTHERS	NOTE / FIELD READINGS
				NO.	TYPE								
			<i>water</i>	<i>3</i>	<i>youy VOA's</i>	<i>X</i>	<i>X</i>				<i>X</i>		
				<i>3</i>		<i>X</i>	<i>X</i>				<i>X</i>		
				<i>3</i>		<i>X</i>	<i>X</i>				<i>X</i>		
				<i>3</i>		<i>X</i>	<i>X</i>				<i>X</i>		
			<i>✓</i>	<i>3</i>	<i>✓</i>	<i>✓</i>							<i>Hold</i>

SUSPECTED CONSTITUENTS	SAMPLE RETENTION TIME	PRESERVATIVES (1) HCL (2) HNO3	(3) - COLD (4)
RELEASING NAME / COMPANY <i>Keith Coady Allwest</i>	DATE / TIME <i>11/17/97 15:00 pm</i>	RECEIVED BY (SIGN) <i>[Signature]</i>	ARRIVING NAME / COMPANY <i>IEL COEN / Global</i>
REC'D AT LAB BY:	DATE / TIME	CONDITIONS / COMMENTS	
SHIPPED VIA	<input type="checkbox"/> FED X	<input type="checkbox"/> UPS	<input type="checkbox"/> OTHER
			AIR BILL #

CLIENT NAME <i>Allied Environmental</i>	CLIENT JOB NUMBER	ANALYSIS REQUESTED	FIELD CONDITIONS			
ADDRESS <i>1 Sutter St SF Ca</i>	DESTINATION LABORATORY		COMPOSITE:			
PROJECT NAME <i>X monitor</i>	<input checked="" type="checkbox"/> GE 4118 Clipper Court Fremont, CA 94538		SPECIAL INSTRUCTIONS:			
PROJECT MANAGER <i>Keith Long</i> PHONE # <i>(415) 591-2570</i>	<input type="checkbox"/> Other		TURN AROUND TIME			
SAMPLED BY			24 HOURS	48 HOURS	1 WEEK	OTHERS
JOB DESCRIPTION <i>GW sampling</i>		NOTE / FIELD READINGS				
SITE LOCATION <i>Alameda</i>						

PRESERVATIVES
8055 Ca) TPH gasolene
8090 BTEX only

DATE	TIME	IDENTIFICATION	METHOD	MATRIX	CONTAINER		PRESERVATIVE	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS	ANALYSIS
					NO.	TYPE											
		MW-1		water	3	Yours	HCl	X	X	X	X	X	X	X	X	X	X
		MW-2		↓	3	↓		X	X	X	X	X	X	X	X	X	X
		MW-3		↓	3	↓		X	X	X	X	X	X	X	X	X	X
		MW-4		↓	3	↓		X	X	X	X	X	X	X	X	X	X
		MW-5 PHD		✓	3	↓	✓										Hold

SUSPECTED CONSTITUENTS: _____ SAMPLE RETENTION TIME: _____ PRESERVATIVES: (1) HCL (2) HNO₃ (3) - COLD (4)

RELEASED BY <i>Keith Long</i>	PRINT NAME / COMPANY <i>Keith Long / Allied</i>	DATE / TIME <i>11/17/97 15:00pm</i>	RECEIVED BY (SIGN) <i>[Signature]</i>	PRINT NAME / COMPANY <i>LEI CDEW / Global</i>
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REC'D AT LAB BY: _____ DATE / TIME: _____ CONDITIONS / COMMENTS: _____

SHIPPED VIA FED X UPS OTHER _____ AIR BILL # _____