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September 22, 1994

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 the Preliminary Site Assessment prepared for the above-referenced site.

Sincerely yours,

John S. Hahn

cc: John Frank (w/o enclosure)
George E. Lindsay, Jr. (w/enclosure)

8020249

AllWest

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Sep 1994

PRELIMINARY SITE ASSESSMENT

1055 Eastshore Highway
Albany, California

ALLWEST PROJECT No. 93070.23

September 19, 1994

PREPARED BY:

Anibal Mata-Sol
Project Geologist

REVIEWED BY:

Long Ching, P.E.
Senior Engineer

AllWest

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AllWest

I. EXECUTIVE SUMMARY

AllWest conducted a preliminary site assessment at *1055 Eastshore Highway, Albany*, California on June 23-24, 1994. The investigation consisted of drilling seven soil borings, including a slant boring, and converting three borings into groundwater monitoring wells. Monitoring well MW-1 was drilled 25 feet below the ground surface, MW-2 and MW-3 were drilled to a depth of 20 feet below the ground surface. The depth to groundwater at the site is approximately 6.4 feet below the ground surface (bgs).

A total of 14 soil and three groundwater samples were collected and forwarded to a state certified laboratory for chemical analyses. Laboratory tests revealed detectable concentrations of Total Petroleum Hydrocarbons as Gasoline (TPH-G), and gasoline constituents Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) in soil and groundwater.

Contaminated soil appears limited to the shallow soils overlying the soil/groundwater interface, between 4 and 6.5 feet bgs.

Soil sampling results demonstrate the levels of TPH-G and BTEX diminish considerably away from the immediate area of the former tank pit, indicating most contaminated soils were removed during over-excavation of the UST pit in September 1992.

The highest concentration of TPH-related compounds in groundwater was reported for MW-2, located within 10 feet south-southwest of the former tank pit. Low to non-detectable concentrations of contaminants were detected in MW-1 and MW-3, located hydraulically downgradient and upgradient respectively from the former UST. The results again demonstrate the levels of TPH-G and BTEX diminish significantly within a short distance from the former UST.

The groundwater flow direction was measured to the south-southeast and to the south at a gradient ranging from 0.009 ft/ft to 0.003 ft/ft, respectively.

The groundwater sampling results indicate that the contaminant plume appears to be confined to the immediate area of the tank. AllWest believes that based on the analytical results, the non-permeable nature of the soils, and the shallow hydraulic gradient of the groundwater, contamination is not likely to be spread beyond the immediate area of the former UST.

Based on the levels of TPH-G and BTEX detected at the site, further subsurface investigations are not warranted. AllWest recommends that the impacted soils exceeding 100 ppm TPH near SB-2 be excavated. Soils exceeding 100 ppm TPH will be identified either by field readings followed by confirmatory laboratory analyses or by an on-site field laboratory. AllWest also recommends that a quarterly groundwater sampling program be implemented for four quarters to assess contaminant degradation and reduction.

PRELIMINARY SITE ASSESSMENT

1055 Eastshore Highway
Albany, California

II. INTRODUCTION

This report presents the results of preliminary site assessment conducted at 1055 Eastshore Highway, Albany, California. The purpose of this investigation was to delineate the extent to which residual Petroleum Hydrocarbon compounds have impacted the site's soils and groundwater. This subsurface investigation was conducted to meet the requirements mandated by the *Alameda County Health Care Services Agency, Department of Environmental Health* (ACDEH) in its letter of July 16, 1993.

A. Site location

The subject property lies in the western-most part of the City of Albany, California, amidst an industrial area. The site is located on the east side of Eastshore Highway, approximately 200 feet east of the Albany off-ramp from Interstate Highway 80. San Francisco Bay is located approximately 2,000 feet west of the subject property. Refer to Site Figures.

B. Background

On September 2, 1992 a 550-gallon gasoline tank and associated piping were removed from the subject property. AllWest Environmental provided consulting services associated with tank closure and documented its work in a October 30, 1992 closure report.

Regulatory oversight of tank closure activities was provided by Mr. Larry Seato, Environmental Health Specialist, of the Alameda County Department of Environmental Health (ACDEH) and Lieutenant Winding of the Albany Fire Department.

An underground storage tank unauthorized release (leak) contamination site report was completed upon receipt of analytical results and forwarded ACDEH on September 9, 1992.

Due to evidence of contamination near the tank pit, the pit was over-excavated in depth and areal extent on September 30, 1992. The pit was enlarged in a westerly and southerly direction and excavated to a depth of 10 feet.

The ACDEH mandated in a letter dated July 16, 1993 that a **Preliminary Site Assessment** be conducted at the subject site.

A **Work Plan for Preliminary Site Assessment** was prepared by AllWest in October 1993 and submitted to ACDEH. AllWest was notified that the Work Plan had been approved by ACDEH in a letter dated November 4, 1993.

III. SCOPE OF WORK

The scope of this subsurface investigation included the following tasks:

- Prepare site Work Plan and attain permits;
- Prepare site Health and Safety Plan;
- Retain a drilling contractor;
- Conduct utility scan for subsurface conduits;
- Drill four soil borings to approximately 10 feet below the surface, including one slant boring at the specific request of ACDEH;
- Drill three soil borings to approximately 20 feet below the ground surface and convert the borings into monitoring wells;
- Collect 14 soil and three groundwater samples;
- Deliver the samples to a state certified laboratory for appropriate chemical analysis;
- Analyze soil and groundwater samples for: Total Petroleum Hydrocarbons as Gasoline(EPA Method mod. 8015); and Volatile Hydrocarbons as Benzene, Ethylbenzene, Toluene, and Total Xylenes (BTEX);
- Prepare a Preliminary Site Assessment report

The purpose of this investigation was to delineate the extent to which residual Petroleum Hydrocarbon compounds have impacted the site's soils and groundwater.

IV. UNDERGROUND UTILITY CLEARING

To avoid damage to underground utility installations during the course of subsurface investigation, AllWest contacted *Underground Service Alert (USA)*, an organization for public utility information, on the pending subsurface investigation. *USA* then notified each of the public and private entities that maintained underground utilities at the site to locate and mark their installations for field identification. The notification number given to AllWest by *USA* was 194982.

In addition to notifying USA, AllWest also employed the services of a private underground locator to map any underground utilities existing at the site. No such utilities were detected by the locator.

V. FIELD INVESTIGATION AND SAMPLING

A. Drilling of Soil Boreholes

Prior to the commencement of field work, Ms. Juliet Shin of the ACDEH was notified to allow for agency inspection of drilling and/or sampling activities. A total of seven soil borings were advanced into the subsurface near the former UST. The soil boring locations are graphically depicted in Figure 4. The borehole drilling was performed by *Soils Exploration Services*, a drilling contractor with a valid C-57 license. The soil borings were drilled with 3.75-inch inside diameter (I.D.) hollow stem augers. During the drilling operation, a geologist from AllWest was present to collect representative soil samples, to conduct field screening, and to maintain a continuous log.

The boring logs contain all pertinent information on drilling and soil conditions, in particular the lithology of the soils and any Organic Vapor Meter readings measured during the subsurface investigation. Boring logs, the boring log legend, and the Unified Soil Classification System (USCS) are included as Appendix B.

B. Soil Sampling Procedures

Soil samples were collected at regular intervals and where changes to stratigraphy occurred. At a minimum, the sampling frequency was every 5 feet to the boring termination depth, typically between 10 and 20 feet below the ground surface.

Soil samples were obtained from within the borehole by advancing the boring to a point immediately above the sampling depth and driving a 2-inch split-spoon sampler (modified California sampler) into the soil through the hollow center of the drill auger. The soil sampler containing three separate six-inch brass sleeves were driven 18 inches with a standard 140 pound hammer repeatedly dropped from a height of 30 inches. The number of blows to drive the sampler each successive 6 inches was counted to evaluate the relative consistency of the soil.

Each soil sample was field screened with a photo-ionizing detector (PID) and readings of the PID, if any, were recorded on the boring logs. All soil samples were placed in 6-inch long by 2-inch diameter, pre-clean brass liners, capped at both ends with Teflon sheets and plastic end caps, sealed with inert silicon tape, labeled, and refrigerated for subsequent laboratory analyses.

C. Groundwater Monitoring Wells

Three soil borings were converted into groundwater monitoring wells after drilling and logging for subsurface soil strata was completed.

The monitoring wells were constructed with 2-inch inside-diameter PVC well casing with factory perforated 0.02" slot section as the well screen. A total of 20 feet of well screen was used for Monitoring Well One (MW-1), and 15-foot screen for MW-2, and MW-3. This provided a screen section of 14 feet below the soil/groundwater interface. The annular space between the well screen and the wall of the boring was back-filled with clean #3 Monterey sand to about one foot above the top of the screen section. A one-foot bentonite plug was then placed over the sand pack to provide a seal against surface water infiltration. The remaining space was then back-filled with cement grout. The top of the well casing was sealed with a locking water-tight cap and set in a traffic-grade "Christy" box for well head protection. The location of the monitoring wells is depicted in Figure 3. A graphic presentation of the well construction is included in Appendix B.

Well development was conducted on June 28, 1994 about 72 hours after the well installation to prevent damage to well packing and sealing materials. Well development was accomplished with combined surging and pumping method. Groundwater samples were collected approximately 24 hours after well development. Detailed descriptions on well development and groundwater sampling procedures are presented in Appendix A of this report. There was no product sheen observed on the groundwater surface. No fuel odor was noted in any of the well casings at the time of groundwater sampling. A copy of the groundwater sampling log is presented in Appendix B.

VI. INVESTIGATION FINDINGS

A. Stratigraphy and Groundwater Depth

The soil borings revealed the near surface soils, underlying the fill, were mostly dark brown to black organic sandy silts and silty sand with minor gravel. In general, the ground surface of the site was covered with asphalt or concrete pavement. Immediately beneath the asphalt/concrete pavement was a 2 feet thick soil fill layer consisting of sandy silt, and sandy silt with gravel. This is commonly known as the base rock. Native soil below the fill normally consisted of sandy silts interbedded with gravel and clay normally referred to as Bay Muds.

Four soil borings (SB-1 through SB-4) were advanced to a depth of 10 feet below the ground surface. SB-1 was advanced approximately 12 feet southeast of the former excavation. The soil underlying the base rock consisted of greyish black organic sandy silt of firm consistency. A silty sand layer was encountered at approximately 7 feet bgs. The sand layer was fine-grained, well graded, and of medium dense consistency. Moderate hydrocarbon odor was noted at the 5-foot level. The boring was terminated at 10 feet bgs.

SB-2 was advanced approximately 18 feet south-southeast of the former excavation. Soil underlying the base rock was an organic greyish black, well graded silty sand of loose consistency. Slight discoloration and moderate hydrocarbon odor was appreciable at the five-foot level. Underlying the silty sand a yellowish brown sand layer was encountered at approximately 7.5 feet bgs. The sand was fine grained, well graded, and of medium dense consistency. No odor was noted at the 10-foot level. The boring was terminated at 10 feet bgs.

SB-3 was advanced approximately 26 feet south of the former excavation. The soil underlying the base rock was a yellowish brown silty sand layer extending down to approximately 4 feet bgs. The sand was coarse-grained, well graded, and of loose consistency. Underlying the silty sand layer was an organic sandy silt layer extending down to approximately 7 feet bgs. The silt layer graded stiff. A yellowish brown silty sand layer was encountered below the silt layer. The sand layer was well-graded and fine-grained. The boring was terminated at 10 feet bgs. No hydrocarbon odor was detected at this boring.

SB-4 was a **slant boring,** advanced at the specific request of the *Alameda County Department of Environmental Health*. The boring was advanced through the former excavation at an angle of approximately 19-20° from vertical in an attempt to assess the presence/absence of contamination beneath the building. The excavation backfill consisted of well graded fine grained sand and gravel. At approximately 3.5 feet bgs a yellowish brown, fine grained sand with minor gravel was encountered. No soil discoloration was observed. Beneath the sand layer a sandy gravel layer was encountered. The sand was coarse grained, well graded, and brownish grey in color. The consistency of the sandy gravel layer was medium dense. Soil discoloration and moderate hydrocarbon odor was noted at the 10-foot level. The sandy gravel layer extended down to a depth of approximately 13 feet bgs. Below 13 feet a poorly graded fine grained sand with minor gravel layer was encountered. A gravel layer was encountered at a depth of 13.5 feet extending down to 14 feet bgs. The size of the gravel ranged from 6 to 14 mm in diameter, and the shape was subangular to rounded. The boring was terminated at 15 feet bgs.

MW-1 was drilled approximately 30 feet hydraulically downgradient from the former UST. At MW-1, the soil underlying the base rock was a dark brown silty clay stratum with minor fine-grained sand and gravel down to a depth of approximately 9 feet below the ground surface. Below the silty clay layer was a yellowish brown sandy silt and clay layer extending down to approximately 13 feet in depth. The sandy silt and sandy clay layer graded very stiff and was of medium plasticity. Underlying the sandy clay layer was a fine-grained sand layer of medium dense consistency extending to a depth of approximately 18 feet. A silty sand layer was encountered at approximately 18 feet. The first groundwater level was initially encountered at a depth of about 14 feet below the ground surface (bgs) during the drilling operation of MW-1. The soil conditions observed from the test borings agree with regional geologic features as described in the various geologic literature. MW-1 was terminated at a depth of 24 feet. For the location of monitoring wells, please refer to Figure 4.

MW-2 was drilled within 10 feet from the former tank in a hydraulically downgradient direction. The soil underlying the base rock was a greyish brown, well graded sand layer with minor gravel of loose consistency extending to a depth of approximately 7 feet bgs. Below the sand layer was a brownish grey silty clay layer of medium to high plasticity extending down to approximately 13.5 feet in depth. The clay layer graded very stiff. A silty sand layer of medium dense consistency was encountered below the silty clay layer. The sand was fine-grained. MW-2 was terminated at approximately 19 feet bgs. The first groundwater level was initially encountered at a depth of about 12 feet below the ground surface during the drilling operation of MW-2.

MW-3 was drilled approximately 24 feet upgradient from the former UST. The soil underlying the base rock was an organic greyish black sandy silt layer. The silt layer graded firm, and the plasticity was medium to high. The approximate gravel size was 5 millimeters. This silt layer extended to a depth of approximately 7 feet bgs. Underlying the silt layer a well graded yellowish brown fine-grained sand layer. The sand was of medium dense consistency. The sand layer extended to a depth of approximately 17.5 feet bgs. Underlying the sand layer was a well graded gravel and sand mixture of medium dense consistency. The gravel size was approximately 14 millimeters in diameter and having a subangular shape. The first groundwater level was initially encountered at a depth of about 15 feet below the ground surface during the drilling operation of MW-3. The boring was terminated at a depth of 19.5 feet bgs. The boring was plugged with two feet of bentonite, and the monitoring well was constructed afterward.

Groundwater measurements were taken on three different days to assess fluctuations. The different measurements taken during this subsurface investigation are tabulated on the following page:

TABLE 1. GROUNDWATER LEVEL MEASUREMENTS

Well Number and Measurement Date	Well Casing Elevation	Depth to Water (In feet)	Groundwater Elevation (Assumed Datum = 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**
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**
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**

The well heads were surveyed after the installation of the monitoring wells. The datum adopted to measure the well head elevation was an assumed datum of 12 feet. The hydraulic gradient was computed for three different occasions when groundwater level measurements were taken. The hydraulic gradient computed for site during this investigation were: 0.009 ft/ft to the south-southeast on June 28, 1994; 0.004 ft/ft to the west-northwest, and 0.003 ft/ft to the south on July 20, 1994.

VII. CERTIFIED ANALYTICAL RESULTS

A. Soil Sampling Results

A total of 14 soil samples were collected from the seven borings drilled at the site. Sampling was performed on June 24, 1994. The soil samples were forwarded to *California Laboratory Services* of Rancho Cordova, California, a state certified analytical laboratory. Analyses performed on each submitted soil sample included Total Petroleum Hydrocarbons as Gasoline (EPA Method mod. 8015); and Volatile Hydrocarbons as Benzene, Ethylbenzene, Toluene, and Total Xylenes (BTEX), EPA Method 8020.

Soil samples were collected from the 5, and the 10-foot level at each boring. Laboratory results revealed that the soils collected from the 5-foot level contained detectable concentrations of TPH-G, and BTEX. Only two samples collected at the 10'-level contained TPH-G and BTEX above the laboratory reporting limits.

The highest concentration of target compounds was reported from SB-2, advanced approximately 18 feet south-southeast of the former excavation. The concentration of petroleum hydrocarbons reported for SB-2 at the 5-foot level was: TPH-G at 2,000 ppm; Benzene at 5.90 ppm; Toluene at 74.0 ppm; Ethylbenzene at 63.0 ppm; and Total Xylenes at 360 ppm. The sample collected at the 10-foot level revealed non-detectable concentrations of TPH compounds.

The slant boring (SB-4), required the ACDEH, was drilled within 4 feet of the building at an angle of 19° from vertical. Soil sampling results from the 5-foot level revealed the following concentrations: TPH-G at 39 ppm; Benzene at 0.023 ppm; Toluene at 0.19 ppm; Ethylbenzene at 0.044 ppm; and Total Xylenes at 2.5 ppm. The only target compounds detected at the 10-foot level included: Benzene at 0.021 ppm; Ethylbenzene at 0.0085 ppm; and Total Xylenes at 0.019 ppm. The soil sampling results are graphically depicted in Figure 5.

All other sampling results from the 5, and 10-foot level indicated that the concentration of TPH-G and related compounds were below 15 ppm, with the exception of the sample collected from the 10'-level at MW-2 which revealed a concentration of 32 ppm.

The concentrations of target chemicals appear to diminish significantly from the former UST. No target contaminants were detected in the soil borings MW-1 and MW-3, respectively located hydraulically downgradient and upgradient from the former UST.

The analytical results for soil samples are tabulated on the following page and are graphically depicted in Figure 5. A copy of the laboratory report and chain-of-custody are presented in Appendix C of this report.

TABLE 2 SOIL SAMPLING RESULTS June 28, 1994					
Sample ID	**TPH-G**	**Benzene**	**Toluene**	**Ethylbenzene**	**Total Xylenes**
SB1-5'	14	0.33	0.013	0.70	0.85
SB1-10'	ND	ND	ND	ND	ND
SB2-5'	2,000	5.90	74.0	63.0	360
SB2-10'	ND	ND	ND	ND	ND
SB3-5'	5.5	ND	0.0081	0.029	0.078
SB3-10'	ND	ND	ND	ND	ND
SB4-5'	39	0.023	0.19	0.44	2.5
SB4-10'	ND	0.021	ND	0.0085	0.019
MW1-5'	ND	ND	ND	ND	ND
MW1-10'	ND	ND	ND	ND	ND
MW2-5'	ND	ND	ND	ND	ND
MW2-10'	32	0.028	0.590	0.980	3.90
MW3-5'	ND	ND	ND	ND	ND
MW3-10'	ND	ND	ND	ND	ND
Detection Limit	**1.0 ppm**	**0.005 ppm**	**0.005 ppm**	**0.005 ppm**	**0.01 ppm**

Note: All concentrations reported in parts per million. mg/kg = ppm
ND = Not detected

slant boring

B. Groundwater Sampling Results

The monitoring wells at the site were sampled on June 29, 1994, 24 hours after well development. For the sampling methodology employed, refer to Appendix A.

Three groundwater samples were collected. The samples were analyzed for Total Petroleum Hydrocarbons as Gasoline (EPA Method mod. 8015); and Volatile Hydrocarbons as Benzene, Ethylbenzene, Toluene, and Total Xylenes (BTEX), EPA Method 8020.

Groundwater sampling results indicated that the groundwater at the site has been impacted by low concentrations of TPH-G, and BTEX. The highest concentration of target chemicals reported by the analytical laboratory was detected in Monitoring Well-2 (MW-2). The laboratory reported 330 ppb for TPH-G, 130 ppb of Benzene, 11.0 ppb of Toluene, 20.0 ppb of Ethylbenzene, and 10.0 ppb of Total Xylenes. This well is located within 10 feet south-southwest of the former tank in hydraulically downgradient direction.

The analytical results of the groundwater samples are tabulated in Table 2 below, and the results are graphically depicted in Figure 6.

TABLE 3 GROUNDWATER SAMPLING RESULTS
June 23-24, 1994

Sample ID	TPH-G	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-1A	ND	ND	0.60	2.5	9.0
MW-2A	330	130	11.0	20.0	10.0
MW-3A	52.0	ND	ND	4.0	13.0
Detection Limit	**50 ppb**	**0.30 ppb**	**0.30 ppb**	**0.30 ppb**	**0.60 ppb**

Note: All concentrations reported in parts per billion. $\mu g/L$ = ppb
ND = Not Detected

VIII. DISCUSSION AND RECOMMENDATIONS

The soil sampling results indicate the target petroleum hydrocarbon compounds are confined to shallow depth, extending from approximately 4 to 6.5 feet bgs in an area immediately to the south and south-southeast of the former UST. This is corroborated by the sampling results from the 10-foot level from borings SB-1, SB-2, SB-3, MW-1, and MW-3 which revealed non-detectable concentrations of target compounds.

Soil sampling results collected from borings at the 5-foot level indicated that soils above the soil/groundwater interface have low concentrations of TPH-G and gasoline-related compounds. The highest concentrations of target compounds reported were for SB2-5', collected approximately 18 feet south-southeast of the former excavation. The analytical results revealed a concentration of TPH-G at 2,000 ppm, Benzene at 5.9 ppm, Toluene at 74.0 ppm, Ethylbenzene at 63.0 ppm, and Total Xylenes at 360.0 ppm.

The non-detectable levels of target compounds at the 10-foot level suggest that the hydrocarbon compounds reside in the unsaturated zone.

Results of samples collected during this preliminary site assessment indicate that the over-excavation of September 30, 1992 was successful in removing most of the contaminated soil. Based on the soil sampling results, we believe that further excavation of the site soils is only appropriate centered on SB-2 as the residual Petroleum Hydrocarbons in both soil and groundwater have been delineated.

AllWest recommends that the impacted soil exceeding 100 ppm TPH near SB-2 be excavated. Soils exceeding 100 ppm TPH will be indentified either by field readings followed by confirmatory laboratory analyses or by an on-site laboratory.

The soil sampling results from the slant boring revealed that at the 5-foot level the concentrations of target chemicals were as follow: TPH-G 39 ppm; Benzene at 0.023 ppm; Toluene at 0.19 ppm; Ethylbenzene at 0.0085 ppm; and Total Xylenes at 2.5 ppm. The low levels of gasoline-related compounds indicate that the soils beneath the building were only minimally impacted by the operation of the former UST.

AllWest believes that further subsurface investigations are unnecessary beneath the building as the levels of TPH-related compounds are below the guideline levels established by the Tri-Regional Board Staff, the site lithology indicates that the soils are of a non-permeable nature, and the low levels of TPH-related compounds do not pose a health threat to building occupants.

Groundwater analyses indicate that detectable concentrations of TPH-G, Benzene, Toluene, Ethylbenzene, and Total Xylenes are present in groundwater and diminish considerably beyond the immediate area of the former tank pit.

The groundwater contained a concentration of Benzene of 130 ppb in a monitoring well located within 10 feet from the former UST.

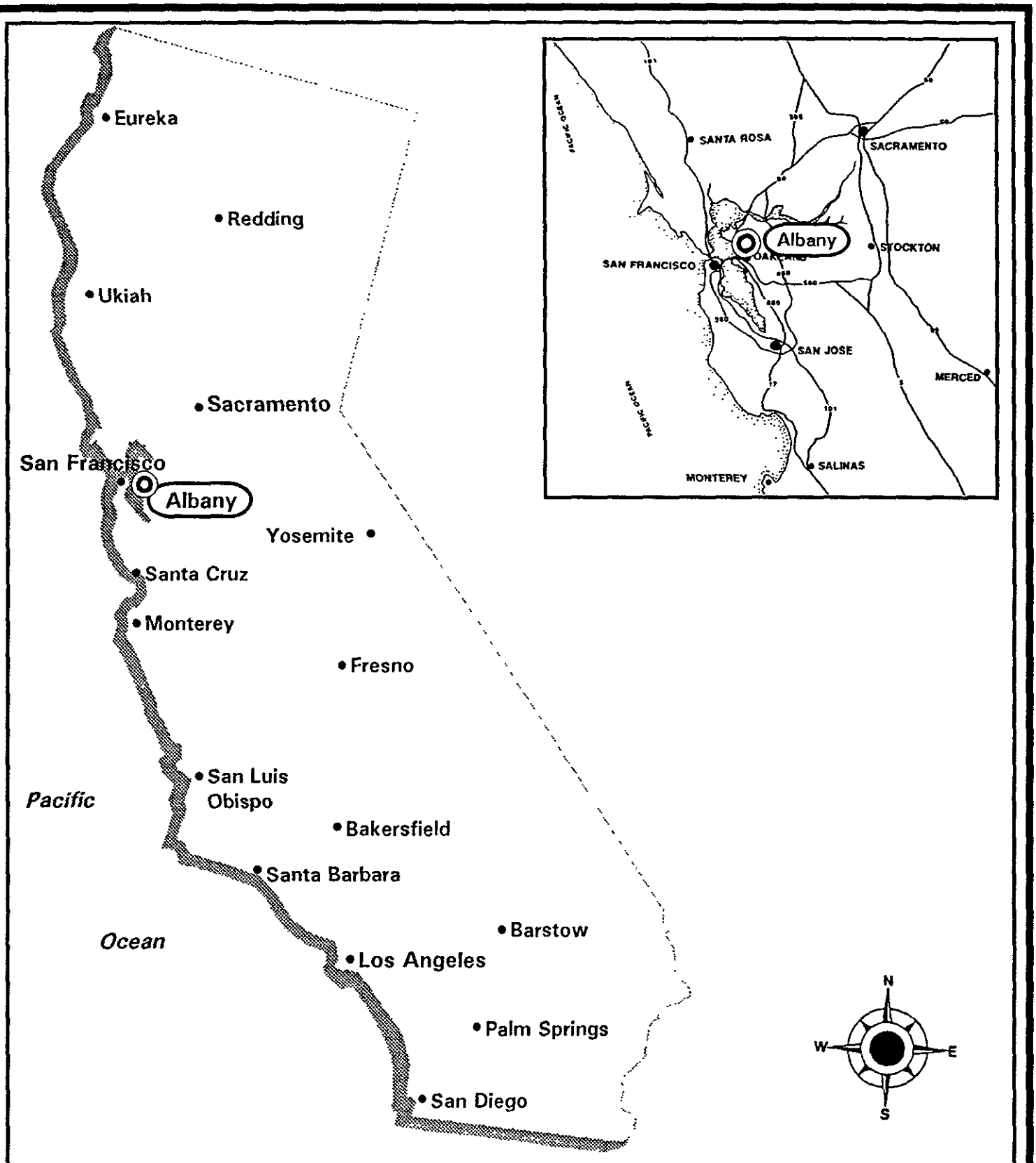
The groundwater flow direction was measured to the south-southeast with a gradient of 0.009 ft/ft on June 28, 1994, and to the south on July 20, 1994 with a gradient of 0.003 ft/ft. One measurement taken on June 29, 1994 revealed that the groundwater flow direction on that day was to the west-northwest with a hydraulic gradient of 0.004 ft/ft.

In addition to limited soil excavation, AllWest recommends that a quarterly groundwater sampling program be implemented for four quarters at the site to assess contaminant degradation and reduction.

IX. REPORT LIMITATIONS

The work described in this report is performed in accordance with generally accepted engineering principles and practices. The conclusions and recommendations contained in this report are made based on observed conditions existing at the site and on laboratory test results of the submitted soil samples. It must be recognized that changes can occur in soil conditions due to site use or other reasons. Furthermore, the distribution of chemical concentrations in the soil can vary spatially and over time. The results of chemical analysis 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.

FIGURES



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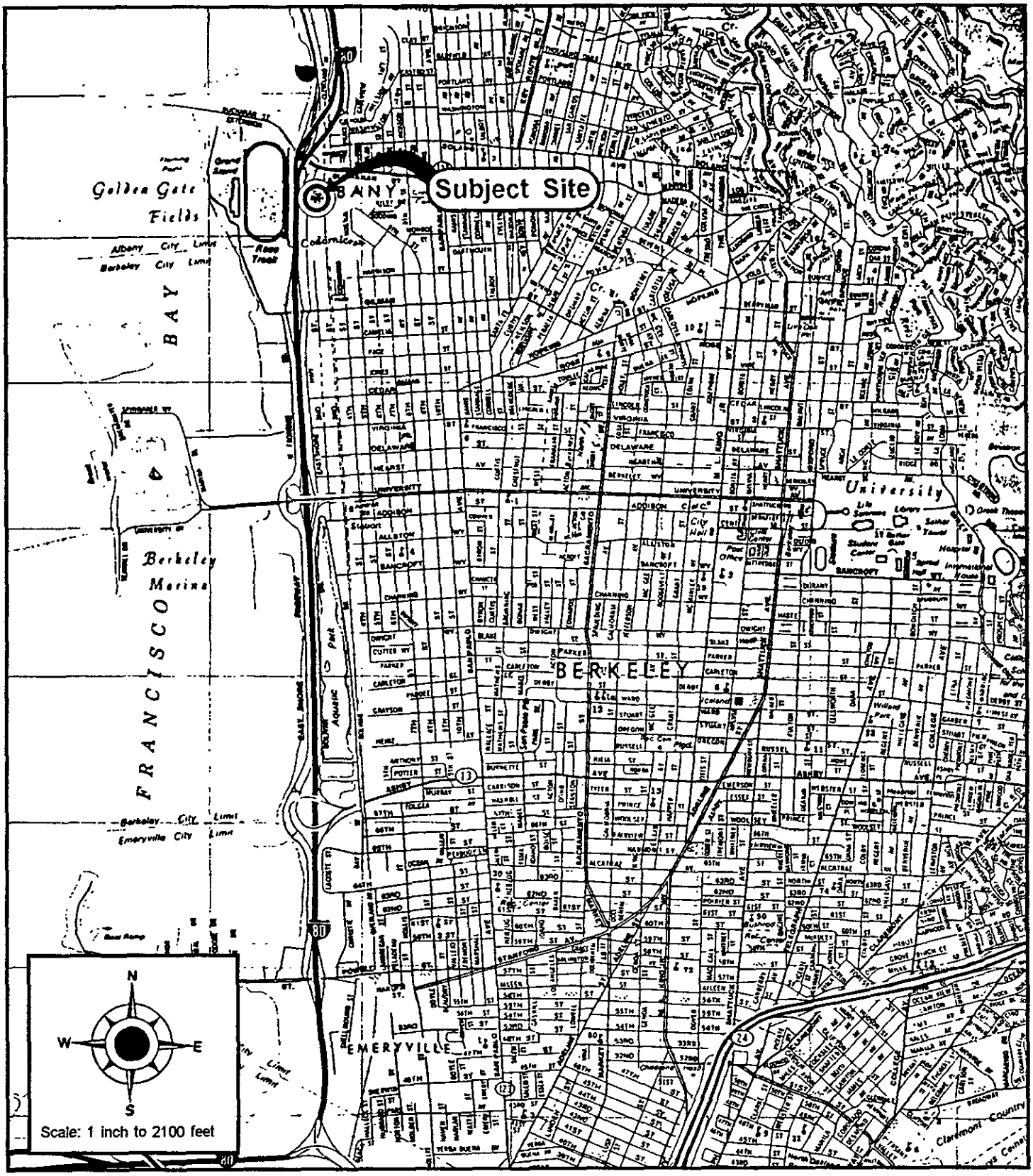
AllWest Environmental, Inc

July 1994	Site Location Map	Project 93070.23	Figure 1
1055 East Shore Highway, Albany, California			Source *AllWest*



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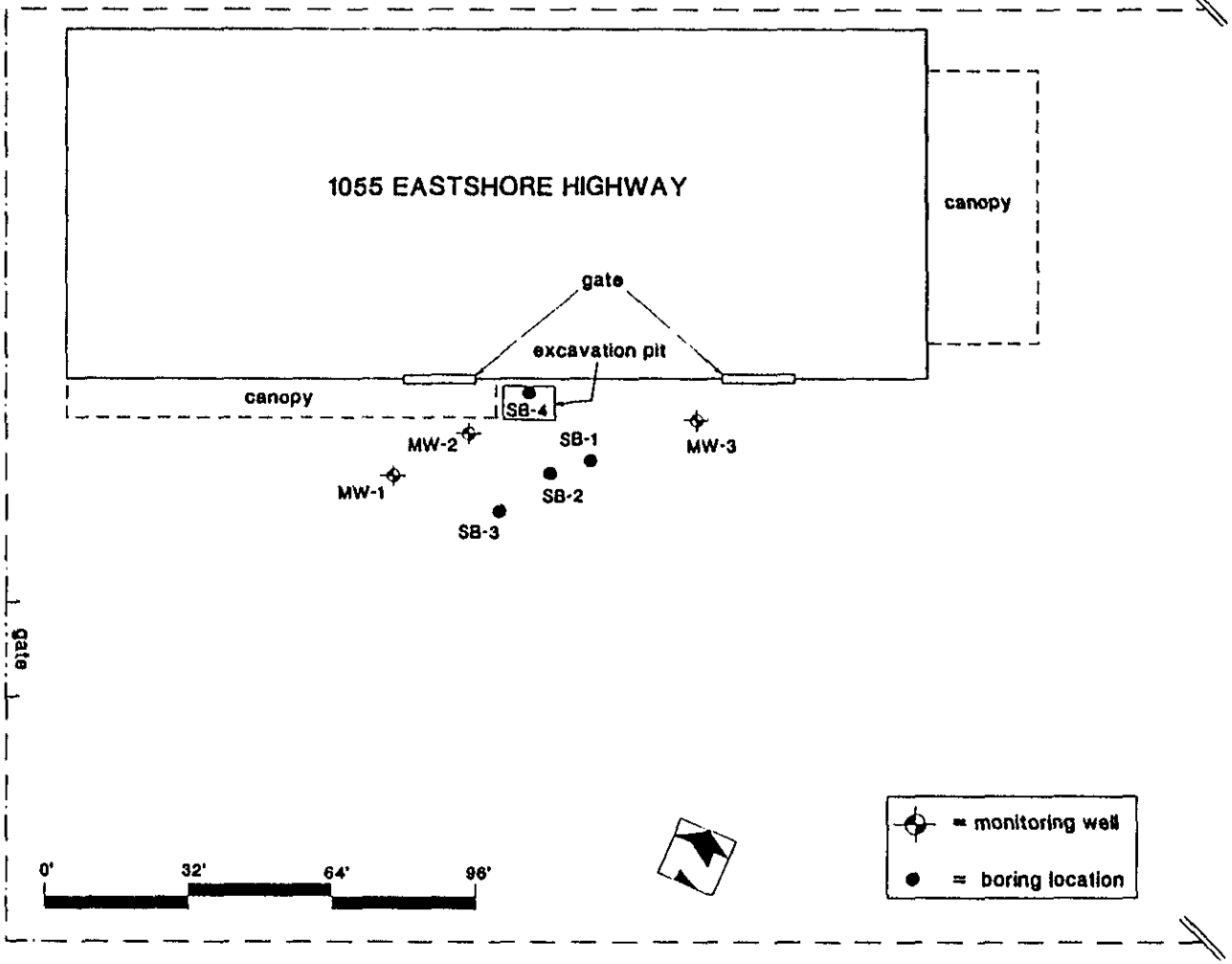
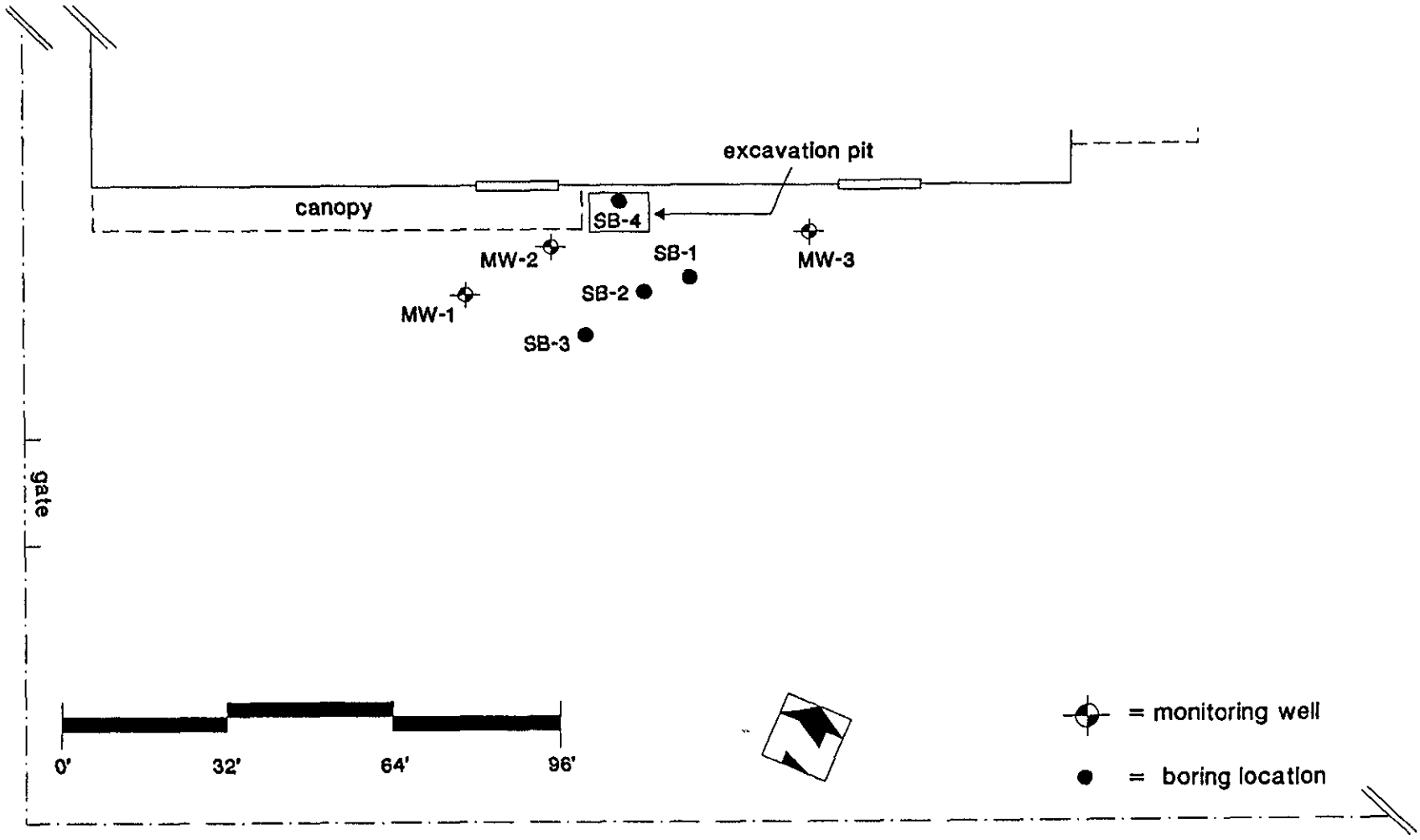
July 1994	Site Vicinity Map	Project 93070.23	Figure 2
1055 East Shore Highway, Albany, California			Source *Rand McNally*



AllWest Environmental, Inc.	July 1994	Site Map	Project 93070.23	Figure 3
	1055 East Shore Highway, Albany, California			Source *AllWest*



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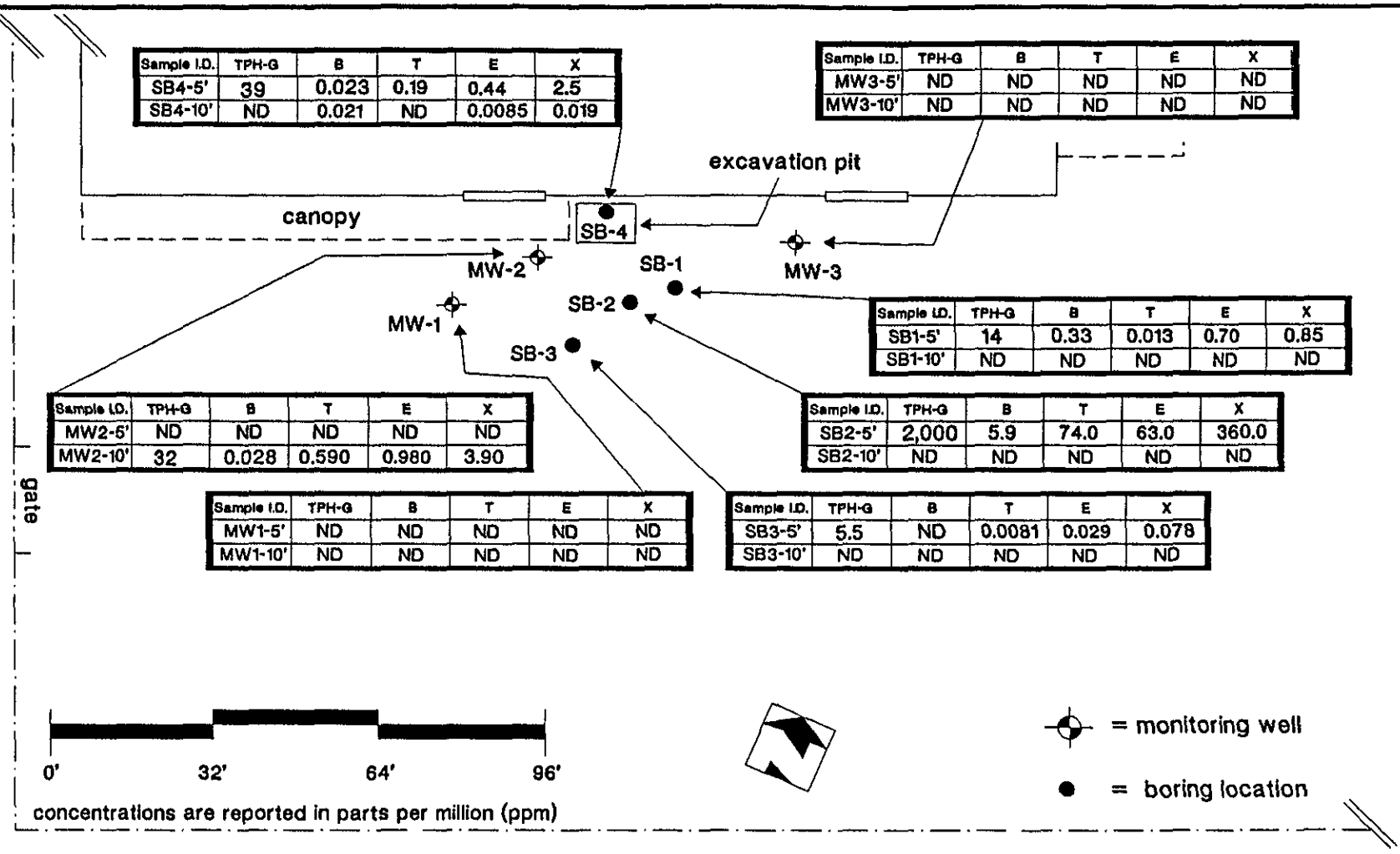
July 1994	Monitoring Well & Soil Boring Locations	Project 93070.23	Figure 4
1055 East Shore Highway, Albany, California			Source *AllWest*



Sample I.D.	TPH-G	B	T	E	X
SB4-5'	39	0.023	0.19	0.44	2.5
SB4-10'	ND	0.021	ND	0.0085	0.019

Sample I.D.	TPH-G	B	T	E	X
MW3-5'	ND	ND	ND	ND	ND
MW3-10'	ND	ND	ND	ND	ND

Sample I.D.	TPH-G	B	T	E	X
SB1-5'	14	0.33	0.013	0.70	0.85
SB1-10'	ND	ND	ND	ND	ND

Sample I.D.	TPH-G	B	T	E	X
MW2-5'	ND	ND	ND	ND	ND
MW2-10'	32	0.028	0.590	0.980	3.90

Sample I.D.	TPH-G	B	T	E	X
SB2-5'	2,000	5.9	74.0	63.0	360.0
SB2-10'	ND	ND	ND	ND	ND

Sample I.D.	TPH-G	B	T	E	X
MW1-5'	ND	ND	ND	ND	ND
MW1-10'	ND	ND	ND	ND	ND

Sample I.D.	TPH-G	B	T	E	X
SB3-5'	5.5	ND	0.0081	0.029	0.078
SB3-10'	ND	ND	ND	ND	ND

AllWest
AllWest Environmental, Inc.

July 1994

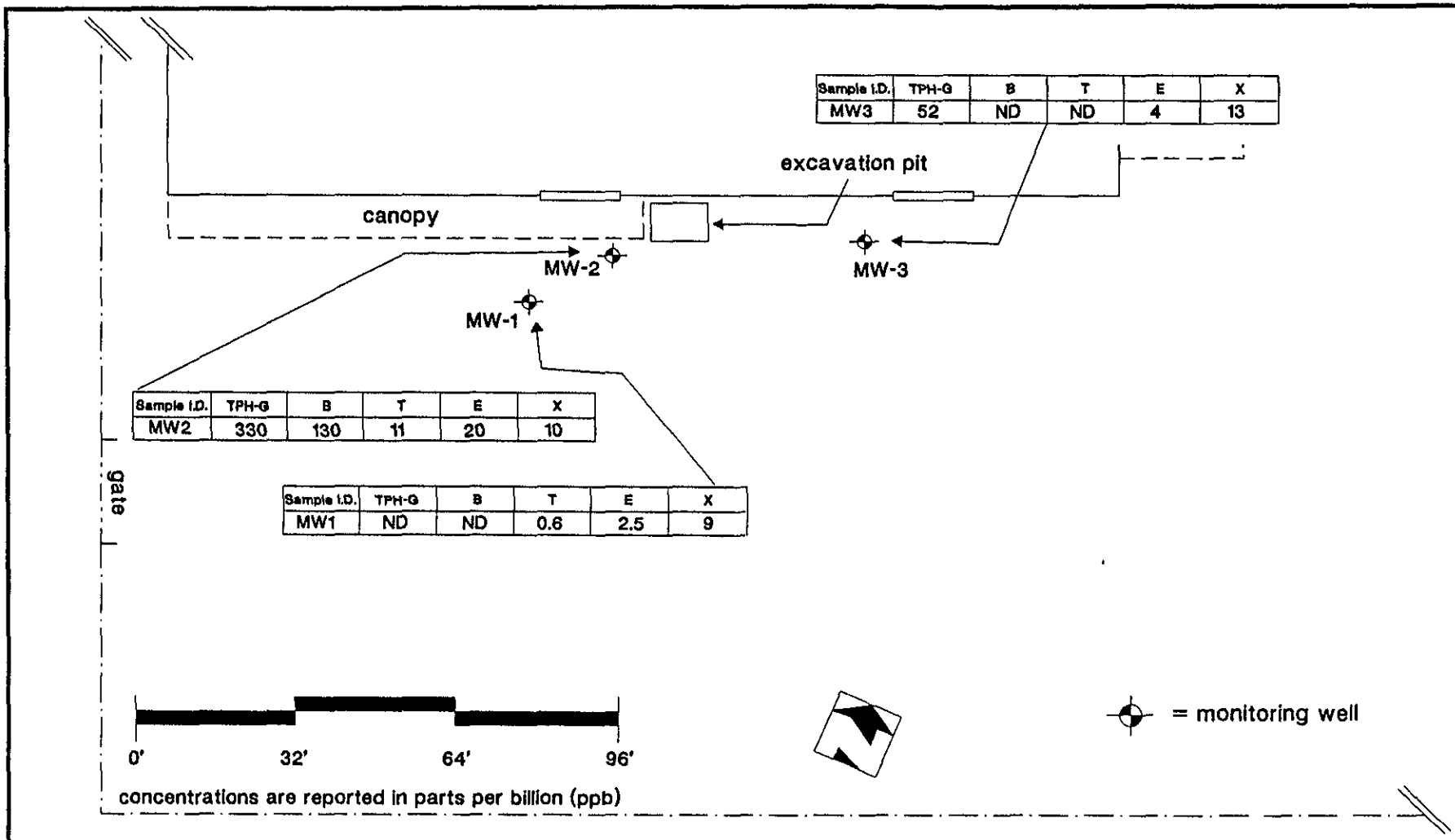
TPH Concentrations in Site's Soil

Project 93070.23

Figure 5

1055 East Shore Highway,
Albany, California

Source
AllWest



AllWest
AllWest Environmental, Inc.

July 1994	TPH Concentrations in Site's Groundwater	Project 93070.23	Figure 6
1055 East Shore Highway, Albany, California			Source *AllWest*

APPENDIX A

APPENDIX A

FIELD PROCEDURES

1. Drilling and Soil Sampling

An engineer from AllWest was present during drilling to assist in collecting relatively undisturbed samples of subsurface materials, to maintain logs of the boring, to make detailed observations of site conditions, and to provide technical assistance as required. All borings were advanced by a truck-mounted CME-75 drill rig equipped with 3.25-inch inside diameter hollow stem augers. Soil samples were collected at 5-foot intervals or where drilling conditions indicated a change in lithology.

Relatively undisturbed soil samples were obtained by driving a modified California sampler lined with brass tubes into the bottom of the bore hole with a 140-pound hammer falling 30 inches. The procedures used in obtaining soil samples are identical with the Standard Split Spoon Sampler (ASTM D-1786). When the sampler was withdrawn from the borings, the brass tubes containing the soil samples were removed, field examined, labeled, and sealed for later laboratory testing.

During field examination, the soil type, color, moisture condition, visible evidence of contamination, and other relevant data of the soil sample were noted and recorded in the field log. Soil types were classified according to the Unified Soil Classification System (ASTM D-2487). After field examination, the exposed ends of each brass tube were covered with 2-mil Teflon sheeting, fitted with plastic end caps, sealed with inert adhesive tapes, and then labeled. The sample label contained project number, boring number, sample number, depth, and sampling date.

Between each sample interval, the sampler was cleaned with a solution of Alconox (a non-phosphate detergent) and tap water, then double rinsed with distilled water, and reassembled with clean brass tubes. In addition, drilling and sampling equipment was steam cleaned between each boring to reduce the potential of cross contamination. All decontamination water generated from equipment cleaning and all drill cuttings generated from soil boring were contained in Department of Transportation (DOT) approved 55-gallon drums and stored on site for later disposal.

After sealing and labeling, collected soil samples were placed immediately in an ice chest cooled to 4°C with "blue ice" to preserve their chemical characteristics. At the conclusion of the drilling process, the soil sample from a depth immediately above the groundwater surface was randomly selected and submitted for testing. Samples selected for testing were delivered to a state certified analytical laboratory by a special courier on the same day of sampling. A chain-of-custody record form was maintained for all samples during travel to the laboratory.

2. Well Development and Groundwater Sampling

Well development was performed 24 hours after the installation of groundwater monitoring well. A combination of pumping and surging method was used for well development. Pumping was accomplished by an electric submersible pump and surging was performed in the same manner. Well development was considered complete after the discharged water during pumping stage was clear and free of sediment. All discharged water from well development were stored in 55-gallon drums for future disposal. Approximately 18 to 24 gallons of groundwater was removed from each well during well development process.

Groundwater sampling was conducted 24 hours after the well had been fully developed. Upon arrival at the well site, the conditions of well vault and well casing were first examined for any damage which may render the well inoperable. After the upper end-cap was removed, an electric water level sounder was lowered into the well casing to measure the water level depth to the nearest 0.01 feet. A clear teflon 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 any floating product or product sheen.

After all initial measurements were completed and recorded, each well was purged by submersible pumps. At least five well volumes of groundwater was purged and the groundwater physical property indicators (temperature, pH, and conductivity) were monitored with a combination meter at each well volume interval. Purging was considered complete when indicators were stabilized and the purged water was relatively free of sediments. All purged water was temporarily stored on-site in 55-gallon drums awaiting test results to determine the proper disposal method.

Sampling was performed after the water level had been recovered to at least 80% of the initial level after purging. Groundwater samples were collected with disposable bailers. Upon retrieval of the disposable bailer, the retained water was carefully transferred to appropriate glassware furnished by the analytical laboratory. A special adopter at the bottom end of the bailer was used to minimize the loss of volatile organics during transfer. All sample containers were fitted with teflon lined septum/cap and filled such that no headspace was present. After the water sample had been properly transferred to the appropriate container, the container was labeled and immediately placed on ice to preserve its chemical characteristics.

To prevent cross contamination, all groundwater sampling equipment that came into contact with the groundwater were thoroughly cleaned by washing in an Alconox solution and rinsed with distilled water prior to each well sampling event. Samples were field stored and transported in an ice chest fitted with blue ice and/or ice that is capable of maintaining a 4°C temperature. After samples had arrived at the AllWest's office, they were rechecked and then placed in a refrigerator awaiting for special courier from the analytical laboratory. All samples were transported under proper chain of custody documentation.

APPENDIX B

UNIFIED SOIL CLASSIFICATION SYSTEM

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOIL	GRAVELS More than half of course fraction is larger than No. 4 sieve.	Clean gravels (less than 5% of fines)	GW	Well graded gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		Gravel with fines	GM	Silty gravels or gravel-sand-silt mixtures, with non-plastic fines.
			GC	Clayey gravels or gravel-sand-clay mixtures, with plastic fines.
	SANDS More than half of course fraction is smaller than No. 4 sieve.	Clean sands (less than 5% of fines)	SW	Well graded sands or gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		Sands with fines	SM	Silty sands or sand-silt mixtures, with non-plastic fines.
			SC	Clayey sands or sand-clay mixtures, with plastic fines.
FINE GRDINED SOIL	SILTS AND CLAYS Liquid Limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, or clayey silts, with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS Liquid Limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			PT	Peat and other highly organic soils.

BORING LOG LEGEND

Sampling Interval	Relatively Undisturbed Sample Collected and Preserved
Sampler Driven, Sample Not Collected	Disturbed Sample Collected and Preserved

AllWest

Specialists in Environmental Due Diligence and Remedial Services

One Sutter Street, Suite 600
San Francisco, CA 94104

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS	GRAVELS MORE THAN HALF OF COURSE FRACTION IS LARGER THAN NO. 4 SIEVE.	Clean gravels (less than 5% fines)	GW	Well graded gravels-sand mixtures little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures,little or no fines.
		Gravel with fines	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS MORE THAN HALF OF COURSE FRACTION IS SMALLER THAN NO. 4 SIEVE.	Clean sands (less than 5% fines)	SW	Well graded sands, gravelly sands little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		Sands with fines	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50%		ML	Inorganic silts and very fine sands, rock flour silty or clayey fine sands or clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

GRAIN SIZES

U.S. Standard Series Sieve — Clear Square Sieve Openings

200 — 50 — 16 — 4 — 3/4" — 3" — 12"

Silts & clays (identified on basis of plasticity)	SAND			GRAVEL		Cobbles	Boulder
	Fine	Medium	Course	Fine	Course		

Color	MOISTURE CONDITION (INCREASING MOISTURE ⟶)
Grey Brown Tan Yellow Red Black Green White Orange	DRY SLIGHTLY DAMP DAMP MOIST VERY MOIST WET SATURATED

PLASTICITY

TERM	PI	DRY STRENGTH	FIELD TEST
Nonplastic	0-3	Very low	Falls apart easily
Slightly plastic	3-15	Slight	Easily crushed with fingers
Medium plastic	15-30	Medium	Difficult to crush
Highly plastic	31 or more	High	Impossible to crush with fingers

CONSISTENCY			RELATIVE DENSITY	
SILTS AND CLAYS	STRENGTH**	BLOWS/FOOT*	SANDS & GRAVELS	BLOWS/FOOT
Very Soft	0 - 1/4	0 - 2	Very Loose	0 - 4
Soft	1/4 - 1/2	2 - 4	Loose	4 - 10
Firm	1/2 - 1	4 - 8	Medium Dense	10 - 30
Stiff	1 - 2	8 - 16	Dense	30 - 50
Very Stiff	2 - 4	16 - 32	Very Dense	Over 50
Hard	Over 4	Over 32		

* Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1-3/8 inch I.D.) split spoon (ASTM D-1586).
** Unconfined compressive strength in tons/sq.ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D-1586) pocket penetrometer, torvane, or visual observations

ADDITIONAL COLUMN

Number of blows or a 140 pound hammer falling 30 inches for each inches of penetration of a 3-inch O.D. ring sampler (classification approximately equivalent to Terzaghi Standard 2-inch O.D. split spoon at 1 foot penetration)

- Driven Interval
- Termination
- Undisturbed Sample
- Groundwater Encountered

PRODUCT ODOR

- No - No Odor
- Sl - Slight Odor
- Md - Moderate Odor
- Sg - Strong Odor
- P - Photoionization Detector Reading
- F - Flameionization Detector Reading

PROJECT NO.:	KEY TO EXPLORATION LOG	FIGURE
DATE:		

AllWest
AllWest Environmental, Inc.

Log of Boring: SB-1

Sheet 1 of 1

Project Name: 1055 Eastshore Highway, Albany

Project Number: 93070.23

Drilling Date: June 24, 1994

Drilling Contractor: Soils Exploration Services
Drill Rig: CME-75
Auger: Hollow Stem - 8" O.D.

Sampler: 2.0" Mod. California Sampler
Hammer: 140 lbs - 30" drop
Logged By: Anibal Mata-Sol

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
			1			Concrete, 6"
			2		ML	Sandy silt and gravel, well graded, yelowish brown, gravel size ~ 16 mm, subangular (base rock)
			3			
2			4			
2	153		5		OL	Silty sand, poorly graded, black, organic matter abundant, medium plasticity, firm, damp to moist, modedrate odor
3			6			
			7			
			8		SM	Silty sand, fine-grained, poorly graded, yelowish brown, medium dense, damp no odor
			9			
3			10			
7	0		11			
10			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			
			21			

Boring terminated at 10'.
Borehole grouted to surface.

AllWest
AllWest Environmental, Inc.

Log of Boring: SB-2

Sheet 1 of 1

Project Name: 1055 Eastshore Highway, Albany

Project Number: 93070.23

Drilling Date: June 24, 1994

Drilling Contractor: Soils Exploration Services
Drill Rig: CME-75
Auger: Hollow Stem - 8" O.D.

Sampler: 2.0" Mod. California Sampler
Hammer: 140 lbs - 30" drop
Logged By: Anibal Mata-Sol

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
			0			Concrete, 6"
			1		ML	Sandy silt and gravel, well graded, yelowish brown (base rock)
			2			
			3			
3			4			
2	188		5		OL	Silty sand, poorly graded, black, organic matter abundant, medium plasticity, soft to firm, moist, soil discoloration, modedrate odor
2			6			
			7			
			8		SP	Sand, fine-grained, poorly graded, minor coarse sand, yelowish brown, medium dense, damp no odor
6			9			
8	35		10			
10			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			
			21			

Boring terminated at 10'.
Borehole grouted to surface.

AllWest
AllWest Environmental, Inc.

Log of Boring: SB-3

Project Name: 1055 Eastshore Highway, Albany

Project Number: 93070.23

Drilling Date: June 24, 1994

Drilling Contractor: Soils Exploration Services
Drill Rig: CME-75
Auger: Hollow Stem - 8" O.D.

Sampler: 2.0" Mod. California Sampler
Hammer: 140 lbs - 30" drop
Logged By: Anibal Mata-Sol

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
			1			Concrete, 6"
			2		ML	Sandy silt and gravel, well graded, yelowish brown (base rock)
			3		SM	Silty sand,coarse-grained, poorly graded, yellowish brown with streaks of grey, soft, damp, soil discoloration, modedrate odor
5 3 2	15.4		4			
			5		OL	Organic sandy silt, black, firm, damp to moist, no odor
			6			
			7			
			8		SM	Silty sand, fine-grained, poorly graded, yelowish brown with streaks of grey, damp, no odor
5 7 10	0		9			
			10			
			11			
			12			
			13			
			14			
			15			
			16			
			17			
			18			
			19			
			20			
			21			

Boring terminated at 10'.
Borehole grouted to surface.

AllWest
AllWest Environmental, Inc.

Log of Boring: SB-4 (Slant Boring)

Project Name: 1055 Eastshore Highway, Albany

Project Number: 93070.23

Drilling Date: June 24, 1994

Drilling Contractor: Soils Exploration Services
Drill Rig: CME-75
Auger: Hollow Stem - 8" O.D.

Sampler: 2.0" Mod. California Sampler
Hammer: 140 lbs - 30" drop
Logged By: Anibal Mata-Sol

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
			1			Concrete, 6"
			2		GW SW	Sand with gravel, fine-grained sand, well graded (base rock > backfill of foremr excavtion)
			3			
3 4 3	235		4		SP	Sand, fine-grained, minor gravel, poorly graded, yellowish brown, loose, damp, slight to moderate odor
			5			
			6			
			7			
			8		GP	Sandy gravel, coarse-grained sand, poorly graded, brownish grey, medium dense, damp to moist, slight odor Soil discoloration at 9' with moderate odor
5 8 12	120		9			
			10			
			11			
			12			
			13	▽	SW	Sand, minor gravel, fine-grained, well graded, brownish grey, medium dense, wet, no odor Gravel layer at 13.5-14', subangular to rounded, approximate size ~6 to 9 mm
7 9 10	0		14			
			15			
			16			
			17			
			18			
			19			
			20			
			21			

Boring terminated at 15'.
Borehole grouted to surface.
Groundwater encountered during drilling at 13'.

AllWest
AllWest Environmental, Inc.

Log of Boring: MW-1

Project Name: 1055 Eastshore Highway, Albany

Project Number: 93070.23

Drilling Date: June 23, 1994

Drilling Contractor: Soils Exploration Services
Drill Rig: CME-75
Auger: Hollow Stem - 8" O.D.

Sampler: 2.0" Mod. California Sampler
Hammer: 140 lbs - 30" drop
Logged By: Anibal Mata-Sol

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
						Concrete, 6"
			1		SP	Sand, fine grained, poorly graded, yelowish brown, damp (base rock)
			2			
			3			
5 10 16	0		4		OL	Organic silty sand and clay, minor gravel, dark brown, very stiff, damp to moist, no odor
			5			
			6			
			7			
			8			
6 8 9	0		9		ML	Sandy silt, fine-grained, poorly graded, yelowish brown, medium dense, damp no odor
			10			
			11			
			12			
			13			
4 6 8	0	▽	14		SP	Sand, fine-grained, poorly graded, yelowish brown, medium dense, very moist, no odor
			15			
			16			
			17			
			18			
5 7 9	0		19		SP	Silty sand, fine grained, poorly graded, yellowish brown, saturated, no odor
			20			
			21			

Boring log continues on next sheet.
Boring converted into monitoring well

AllWest
AllWest Environmental, Inc.

Log of Boring: MW-1
Project Name: 1055 Eastshore Highway, Albany
Project Number: 93070.23
Drilling Date: June 23, 1994

Drilling Contractor: Soils Exploration Services
Drill Rig: CME-75
Auger: Hollow Stem - 8" O.D.

Sampler: 2.0" Mod. California Sampler
Hammer: 140 lbs - 30" drop
Logged By: Anibal Mata-Sol

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
			21		SM	Silty sand, fine grained, poorly graded, yellowish brown, saturated, no odor
			22			
			23			
			24			
			25			
			26			
			27			
			28			
			29			
			30			
			31			
			32			
			33			
			34			
			35			
			36			
			37			
			38			
			39			
			40			
			41			

Boring terminated at 25'.
Boring converted into monitoring well.

AllWest
AllWest Environmental, Inc.

Log of Boring: MW-2

Project Name: 1055 Eastshore Highway, Albany

Project Number: 93070.23

Drilling Date: June 23, 1994

Drilling Contractor: Soils Exploration Services
Drill Rig: CME-75
Auger: Hollow Stem - 8" O.D.

Sampler: 2.0" Mod. California Sampler
Hammer: 140 lbs - 30" drop
Logged By: Anibal Mata-Sol

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
						Concrete, 6"
			1	Grout	ML	Sandy silt, dark brown, med. plasticity, damp, no odor (base rock)
			2			
			3	Bentonite		
3 4 5	6		4		SP	Sand, minor gravel, poorly graded, geyish brown, loose, damp, no odor
			5			
			6			
			7		CH	Silty clay, brownish grey, very stiff, medium to high plasticity, damp, slight odor
			8	Screen		
			9	Sand		
4 12 16	138		10			
			11			
			12		SM	Silty sand, fine-grained, poorly graded, yellowish brown, medium dense, moist to wet, no odor
			13			
6 8 9	2.3		14			
			15			
			16			
			17			
			18			
			19			
			20			
			21			

Boring terminated at 19.5'. Boring converted into monitoring well.
Groundwater encountered at approximately 12' during drilling. Thereafter, it stabilized at around 7'.

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AllWest Environmental, Inc.

Log of Boring: MW-3

Sheet 1 of 1

Project Name: 1055 Eastshore Highway, Albany

Project Number: 93070.23

Drilling Date: June 23, 1994

Drilling Contractor: Soils Exploration Services
Drill Rig: CME-75
Auger: Hollow Stem - 8" O.D.

Sampler: 2.0" Mod. California Sampler
Hammer: 140 lbs - 30" drop
Logged By: Anibal Mata-Sol

Blow Count	OVM Reading	Sample Interval	Depth in Feet	Well Profile	USCS Code	Soil Description
						Concrete, 6"
			1	Grout	ML	Sandy silt, poorly graded, dark brown, damp (base rock)
			2			
			3	Bentonite		
2			4			
2	0		5		OL	Organic sandy silt, poorly graded, greyish black, medium to high plasticity, firm, damp, no odor
3			6			
			7			
			8			
			9			
5			10	Screen / Sand		
8	0					
10			11			
			12		SP	Sand, fine-grained, poorly graded, minor silt, yelowish brown, medium dense, damp no odor
			13			
3			14			
6	0		15			
11			16			
			17			
6			18		GW SW	Gravel and sand mixture, coarse grained sand, well graded, medium dense, gravel up to 14 mm and subangular, wet, no odor
8	0		19		Bentonite	
9			20			
			21			

Boring terminated at 19.5'
Bottom of well plugged with 2' of bentonite.

APPENDIX C

California Laboratory Services

rr15408

CHAIN OF CUSTODY

LOG NO. 17406

CLIENT NAME	AllWest Environmental
ADDRESS	1 Sutter St. #600
	San Francisco, CA 94104
PROJECT NAME	AMFAC II
PROJECT MANAGER	Anibal Mata-Sol PHONE # 391-2510
SAMPLED BY	Mata-Sol
JOB DESCRIPTION	Preliminary site Assessment
SITE LOCATION	AMFAC, ALBANY

CLIENT JOB NUMBER

DESTINATION LABORATORY

☒ CLS
3249 FITZGERALD RD.
RANCHO CORDOVA, CA
95742

☐ OTHER

PH: (916) 638-7301

FIELD CONDITIONS: Sunny + hot ~ 78°F

COMPOSITE:

SPECIAL INSTRUCTIONS:

TURN AROUND TIME: 24 HOURS | 48 HOURS | 1 WEEK | 2 WEEKS

NOTE / FIELD READINGS

DATE	TIME	SAMPLE IDENTIFICATION	METHOD	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	ANALYSIS REQUESTED: TPH-Gas + BTEX
6/24/94	0849	SB1-5'	Split Spoon	Soil	1	Brass	3	
	0955	SB2-5'						
	1029	SB3-5'						
	1201	SB4-5'						
	1216	SB4-10'						
	0904	SB1-10'						
	1005	SB2-10'						
	1038	SB3-10'						
6/23/94	0851	MW1-5'						
	0857	MW1-10'						
1058	1116	MW2-5'						
	1106	MW2-10						
	1320	MW3-5						

SUSPECTED CONSTITUENTS: TPH-Gas

SAMPLE RETENTION TIME

PRESERVATIVES: (1) HCL (2) HNO3 (3) COLD (4)

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE	TIME	REC'D BY (SIGN)	PRINT NAME / COMPANY
C. Mata-Sol	Anibal Mata-Sol / AllWest	6-28-94	1100	E Hallmore	E Hallmore / CLS
E Hallmore	E Hallmore / CLS	6-28-94	1200		

REC'D AT LAB BY: Lea Heathcote

DATE / TIME: 6/28/94 1500

CONDITIONS / COMMENTS:

SHIPPED VIA: ☐ FED X ☐ UPS ☒ OTHER CLS courier

AIR BILL #

California Laboratory Services

T13408

CHAIN OF CUSTODY

LOG NO. 14766

CLIENT NAME

ADDRESS

SAME AS

PROJECT NAME

PROJECT MANAGER PHONE #

SAMPLED BY

JOB DESCRIPTION

SITE LOCATION

CLIENT JOB NUMBER

DESTINATION LABORATORY

☒ CLS
3249 FITZGERALD RD.
RANCHO CORDOVA, CA 95742
PH: (916) 638-7301
☐ OTHER

PRESERVATIVES

ANALYSIS REQUESTED

TRPHC BTEX

FIELD CONDITIONS:

COMPOSITE:

SPECIAL INSTRUCTIONS:

TURN AROUND TIME

24 HOURS	48 HOURS	1 WEEK	2 WEEKS
		X	

NOTE / FIELD READINGS

DATE	TIME	SAMPLE IDENTIFICATION	CONTAINER METHOD	MATRIX	NO.	TYPE	PRESERVATIVES	ANALYSIS REQUESTED
6/23/94	1335	MW3.10'	Split Spoon	Soil	1	Brass	3	X
		~~MW4-5~~						

SUSPECTED CONSTITUENTS

SAMPLE RETENTION TIME

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4)

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE	TIME	REC'D BY (SIGN)	PRINT NAME / COMPANY
[illegible]	Anibal Mata-Soil/MW4	6-28-94	1100	[illegible] Hallmark	[illegible] Hallmark/CLS
[illegible] Heathcote	[illegible] Hallmark/CLS	6-28-94	1500		

REC'D AT LAB BY: Lee A Heathcote

DATE / TIME: 6/28/94 1500

CONDITIONS / COMMENTS:

SHIPPED VIA ☐ FED X ☐ UPS ☒ OTHER CLS Courier

AIR BILL #

California Laboratory Services

AllWest Environmental
One Sutter Street Ste 600
San Francisco, CA 94104

07/05/94

Attention: **Anibal Mata-Sol**

Reference: **Analytical Results**

Project Name: **AMFAC II**
Project No.: **93070.23**
Date Received: **06/28/94**
Chain Of Custody: **14766, 17406**

CLS ID No.: **M5408**
CLS Job No.: **795408**

The following analyses were performed on the above referenced project:

No. of Samples	*Turnaround Time*	Analysis Description
14	5 Days	TPH Gasoline and BTXE (soil)

These samples were received by California Laboratory Services in a chilled, intact state and accompanied by a valid chain of custody document.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

George Hampton
Laboratory Director

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB1-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-1A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	1000	99

***Sample:* SB1-5'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	330	10	2.0
Toluene	108-88-3	13	10	2.0
Ethylbenzene	100-41-4	700	25	5.0
Xylenes, total	1330-20-7	850	20	2.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB2-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-2A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	10000	97

***Sample:* SB2-5'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	5900	500	100
Toluene	108-88-3	74000	5000	1000
Ethylbenzene	100-41-4	63000	5000	1000
Xylenes, total	1330-20-7	360000	10000	1000

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB3-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-3A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	101

***Sample:* SB3-5'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	8.1	5.0	1.0
Ethylbenzene	100-41-4	29	5.0	1.0
Xylenes, total	1330-20-7	78	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB4-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-4A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	99

***Sample:* SB4-5'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	23	5.0	1.0
Toluene	108-88-3	190	5.0	1.0
Ethylbenzene	100-41-4	440	25	5.0
Xylenes, total	1330-20-7	2500	50	5.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB4-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-5A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	99

***Sample:* SB4-10'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	21	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	8.5	5.0	1.0
Xylenes, total	1330-20-7	19	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB1-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-6A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	99

***Sample:* SB1-10'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB2-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-7A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	100

***Sample:* SB2-10'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB3-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-8A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	99

***Sample:* SB3-10'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW1-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-9A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	99

***Sample:* MW1-5'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW1-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-10A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	98

***Sample:* MW1-10'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW2-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-11A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	97

***Sample:* MW2-5'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW2-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-12A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	2500	99

***Sample:* MW2-10'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	28	25	5.0
Toluene	108-88-3	590	25	5.0
Ethylbenzene	100-41-4	980	25	5.0
Xylenes, total	1330-20-7	3900	100	10

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW3-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-13A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	98

Sample: MW3-5'

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW3-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-14A**
Batch No.: **13948**
Matrix: **SOIL**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	98

***Sample:* MW3-10'**

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)	Dilution
Benzene	71-43-2	ND	5.0	1.0
Toluene	108-88-3	ND	5.0	1.0
Ethylbenzene	100-41-4	ND	5.0	1.0
Xylenes, total	1330-20-7	ND	10	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 8020**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408**
Batch No.: **13948**
Matrix: **SOIL**

MB SURROGATE

Analyte	CAS No.	Surr Conc. (ug/kg)	MB Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	100	99

METHOD BLANK

Analyte	CAS No.	Results (ug/kg)	Rep. Limit (ug/kg)
Benzene	71-43-2	ND	5.0
Toluene	108-88-3	ND	5.0
Ethylbenzene	100-41-4	ND	5.0
Xylenes, total	1330-20-7	ND	10

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB1-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-1A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* SB1-5'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	14	2.0	2.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB2-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-2A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* SB2-5'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	2000	1000	1000

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB3-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-3A**
Batch No.: **13948**
Matrix: **SOIL**

Sample: **SB3-5'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	5.5	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB4-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-4A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* SB4-5'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	39	5.0	5.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB4-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-5A**
Batch No.: **13948**
Matrix: **SOIL**

Sample: SB4-10'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB1-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-6A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* SB1-10'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB2-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-7A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* SB2-10'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/24/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **SB3-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-8A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* SB3-10'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW1-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-9A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* MW1-5'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW1-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-10A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* MW1-10'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW2-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-11A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* MW2-5'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW2-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-12A**
Batch No.: **13948**
Matrix: **SOIL**

Sample: MW2-10'

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	32	5.0	5.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW3-5'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-13A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* MW3-5'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/23/94**
Date Received: **06/28/94**
Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**
Client ID No.: **MW3-10'**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408-14A**
Batch No.: **13948**
Matrix: **SOIL**

***Sample:* MW3-10'**

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution
TPH as Gasoline	N/A	ND	1.0	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408**
Batch No.: **13948**
Matrix: **SOIL**

METHOD BLANK

Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)
TPH as Gasoline	N/A	ND	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408**
Batch No.: **13948**
Matrix: **SOIL**

MATRIX SPIKE

Analyte	CAS No.	MS Conc. (mg/kg)	MS Recovery (percent)
Gasoline	N/A	2.5	94

MATRIX SPIKE DUPLICATE

Analyte	CAS No.	MSD Conc. (mg/kg)	MSD Recovery (percent)
Gasoline	N/A	2.5	92

RELATIVE % DIFFERENCE

Analyte	CAS No.	Relative Percent Difference (percent)
Gasoline	N/A	2

3249 Fitzgerald Road Rancho Cordova, CA 95742 (916) 638-7301 Fax (916) 638-4510

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Extracted: **06/29/94**
Date Analyzed: **06/29/94**
Date Reported: **07/01/94**

Project No.: **93070.23**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795408**
COC Log No.: **14766, 17406**
CLS ID No.: **M5408**
Batch No.: **13948**
Matrix: **SOIL**

LAB CONTROL SAMPLE

Analyte	CAS No.	LCS Conc. (mg/kg)	LCS Recovery (percent)
Gasoline	N/A	2.5	98

California Laboratory Services

CHAIN OF CUSTODY

M5435

LOG NO. 13230

CLIENT NAME: AllWest Environmental
ADDRESS: 1 Sutter St. #600
San Francisco CA 94104
PROJECT NAME: AMFAC II
PROJECT MANAGER: Anibal Mata. Sol PHONE #: 391-2510
SAMPLED BY: Matthew Cunningham
JOB DESCRIPTION: 1055 Eastshore Hwy
SITE LOCATION: Preliminary Site Assessment

CLIENT JOB NUMBER: 93070.

DESTINATION LABORATORY:
☒ CLS
3249 FITZGERALD RD.
RANCHO CORDOVA, CA
95742
☐ OTHER

FIELD CONDITIONS: Sunny + Clear ~ 70°F

COMPOSITE:

SPECIAL INSTRUCTIONS:

DATE	TIME	SAMPLE IDENTIFICATION	METHOD	MATRIX	CONTAINER NO.	CONTAINER TYPE	PRESERVATIVES	ANALYSIS REQUESTED: TPH-Gas + BTEX	TURN AROUND TIME: 24 HOURS	48 HOURS	1 WEEK	2 WEEKS	NOTE / FIELD READING
6/29/94	1636	MW1 - A+B	BAILER	H_2O	2	VOA	3	X			X		
6/29/94	1951	MW2 A+B	"	"	2	VOA	"	"			"		
6/29/94	1859	MW3 - A+B	"	H_2O	2	VOA	"	"			"		

SUSPECTED CONSTITUENTS: TPH. Gas

SAMPLE RETENTION TIME

PRESERVATIVES: (1) HCL (2) HNO_3 (3) = COLD (4)

RELINQUISHED BY (SIGN)	PRINT NAME / COMPANY	DATE / TIME	REC'D BY (SIGN)	PRINT NAME / COMPANY
[signature]	Anibal Mata. Sol/AllWest	6/30/94 1112	Elhart Hallmark	E Hallmark/CLS
Elhart Hallmark	E Hallmark/CLS	6/30/94 1345		

REC'D AT LAB BY: Mark Schuett
DATE / TIME: 6/30/94 1345
CONDITIONS / COMMENTS:

SHIPPED VIA: ☐ FED X ☐ UPS ☒ OTHER Courier
AIR BILL #

California Laboratory Services

AllWest Environmental
One Sutter Street Ste 600
San Francisco, CA 94104

07/05/94

Attention: **Anibal Mata-Sol**

Reference: **Analytical Results**

Project Name: **AMFAC II**
Project No.: **93070**
Date Received: **06/30/94**
Chain Of Custody: **13230**

CLS ID No.: **M5435**
CLS Job No.: **795435**

The following analyses were performed on the above referenced project:

No. of Samples	*Turnaround Time*	*Analysis Description*
3	5 Days	TPH Gasoline and BTXE (water)

These samples were received by California Laboratory Services in a chilled, intact state and accompanied by a valid chain of custody document.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,

George Hampton
Laboratory Director

California Laboratory Services

Analysis Report: **BTEX, EPA Method 602**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/29/94**
Date Received: **06/30/94**
Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**
Client ID No.: **MW1-A+B**

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435-1A**
Batch No.: **13962**
Matrix: **WATER**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/L)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	20	104

***Sample:* MW1-A+B**

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)	Dilution
Benzene	71-43-2	ND	0.30	1.0
Toluene	108-88-3	0.60	0.30	1.0
Ethylbenzene	100-41-4	2.5	0.30	1.0
Xylenes, total	1330-20-7	9.0	0.60	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 602**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/29/94**
Date Received: **06/30/94**
Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**
Client ID No.: **MW2-A+B**

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435-2A**
Batch No.: **13962**
Matrix: **WATER**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/L)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	20	94

***Sample:* MW2-A+B**

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)	Dilution
Benzene	71-43-2	130	1.5	5.0
Toluene	108-88-3	11	0.30	1.0
Ethylbenzene	100-41-4	20	0.30	1.0
Xylenes, total	1330-20-7	10	0.60	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 602**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/29/94**
Date Received: **06/30/94**
Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**
Client ID No.: **MW3-A+B**

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435-3A**
Batch No.: **13962**
Matrix: **WATER**

SURROGATE

Analyte	CAS No.	Surr Conc. (ug/L)	Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	20	94

***Sample:* MW3-A+B**

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)	Dilution
Benzene	71-43-2	ND	0.30	1.0
Toluene	108-88-3	ND	0.30	1.0
Ethylbenzene	100-41-4	4.0	0.30	1.0
Xylenes, total	1330-20-7	13	0.60	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

Analysis Report: **BTEX, EPA Method 602**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

Project: **AMFAC II**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435**
Batch No.: **13962**
Matrix: **WATER**

Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**

MB SURROGATE

Analyte	CAS No.	Surr Conc. (ug/L)	MB Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	20	100

METHOD BLANK

Analyte	CAS No.	Results (ug/L)	Rep. Limit (ug/L)
Benzene	71-43-2	ND	0.30
Toluene	108-88-3	ND	0.30
Ethylbenzene	100-41-4	ND	0.30
Xylenes, total	1330-20-7	ND	0.60

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/29/94**
Date Received: **06/30/94**
Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**
Client ID No.: **MW1-A+B**

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435-1A**
Batch No.: **13962**
Matrix: **WATER**

***Sample:* MW1-A+B**

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution
TPH as Gasoline	N/A	ND	0.050	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/29/94**
Date Received: **06/30/94**
Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**
Client ID No.: **MW2-A+B**

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435-2A**
Batch No.: **13962**
Matrix: **WATER**

***Sample:* MW2-A+B**

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution
TPH as Gasoline	N/A	0.33	0.050	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Sampled: **06/29/94**
Date Received: **06/30/94**
Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**
Client ID No.: **MW3-A+B**

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435-3A**
Batch No.: **13962**
Matrix: **WATER**

***Sample:* MW3-A+B**

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)	Dilution
TPH as Gasoline	N/A	0.052	0.050	1.0

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **Total Petroleum Hydrocarbons, EPA Method 8015**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435**
Batch No.: **13962**
Matrix: **WATER**

METHOD BLANK

Analyte	CAS No.	Results (mg/L)	Rep. Limit (mg/L)
TPH as Gasoline	N/A	ND	0.050

ND = Not detected at or above indicated Reporting Limit
Rep. Limit = Reporting Limit

California Laboratory Services

Analysis Report: **BTEX, EPA Method 602**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435**
Batch No.: **13962**
Matrix: **WATER**

MS SURROGATE

Analyte	CAS No.	MS Surr. Conc. (ug/L)	MS Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	20	97

MATRIX SPIKE

Analyte	CAS No.	MS Conc. (ug/L)	MS Recovery (percent)
Benzene	71-43-2	20	99
Toluene	108-88-3	20	102
Ethylbenzene	100-41-4	20	115
Xylenes, total	1330-20-7	60	108

MSD SURROGATE

Analyte	CAS No.	Surr. Conc. (ug/L)	MSD Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	20	97

MATRIX SPIKE DUPLICATE

Analyte	CAS No.	MSD Conc. (ug/L)	MSD Recovery (percent)
Benzene	71-43-2	20	94
Toluene	108-88-3	20	100
Ethylbenzene	100-41-4	20	118
Xylenes, total	1330-20-7	60	110

California Laboratory Services

Analysis Report: **BTEX, EPA Method 602**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

Project: **AMFAC II**

Date Extracted: **07/01/94**
Date Analyzed: **07/01/94**
Date Reported: **07/05/94**

Project No.: **93070**
Contact: **Anibal Mata-Sol**
Phone: **(415)391-2510**

CLS Contact: **George Hampton**
Job No.: **795435**
COC Log No.: **13230**
CLS ID No.: **M5435**
Batch No.: **13962**
Matrix: **WATER**

RELATIVE % DIFFERENCE

Analyte	CAS No.	Relative Percent Difference (percent)
Benzene	71-43-2	5
Toluene	108-88-3	2
Ethylbenzene	100-41-4	3
Xylenes, total	1330-20-7	2

California Laboratory Services

Analysis Report: **BTEX, EPA Method 602**
Purge and Trap, EPA Method 5030

Client: **AllWest Environmental**
One Sutter Street Ste 600
San Francisco, CA 94104

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Batch No.: **13962**
Matrix: **WATER**

LCS SURROGATE

Analyte	CAS No.	LCS Conc. (ug/L)	LCS Surrogate Recovery (percent)
o-Chlorotoluene	95-49-8	20	98

LAB CONTROL SAMPLE

Analyte	CAS No.	LCS Conc. (ug/L)	LCS Recovery (percent)
Benzene	71-43-2	20	107
Ethylbenzene	100-41-4	20	107
Toluene	108-88-3	20	109
Xylenes, total	1330-20-7	60	104